A COMPARATIVE STUDY OF MIDDLE SCHOOL DEAF STUDENTS' PERCEPTIONS TOWARDS VOCATIONAL INTERNSHIPS ACCORDING TO THEIR GENDER, GRADE LEVEL AND FAMILY INCOME AT THE SPECIAL EDUCATION SCHOOL OF QUJING, CHINA

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Abstract: The purpose of this study was to identify the demographic factors of the deaf students, to determine the deaf students' perceptions towards vocational internships, and to compare the deaf students' perceptions towards vocational internships at the Special Education School of Qujing according to gender, grade level and family income in 2015. A total of 147 deaf students (106 male and 41 female), from grade level 7 to vocational high school completed the survey. Statistical measures employed included frequency and percentage, mean and standard deviation, one-way ANOVA and independent samples t-test. The result of this study has indicated that gender difference was not a significant issue to impact students' perceptions, yet the researcher discovered that students from different grade levels and different extents of family income had significant perception differences.

Specifically, students from a higher grade level had higher perceptions than those from lower grade levels. In terms of family income, students from families whose monthly income was lower or included 1000 RMB had lower perceptions than other students. Recommendations for directors, teachers, the school, the students and future researchers are provided.

Keywords: Deaf students` perceptions, Vocational Internship, Gender, Grade Level, Family Income.

Introduction

The Compulsory Education Law of the People's Republic of China (2006) stated that disabled students (including visual impaired, hearing impaired, and intellectual disabilities) have the same right to receive 9 to 12 years of compulsory education; vocational education is the antecedent component of special education.

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The target special education school in this study had 446 students studying in 2015. The school contains primary and secondary levels of education. The vocational education for deaf students starts from the secondary level until the students graduate from the school. The students learn basic and simple vocational skills in the secondary level. The school provides internships for students to practice their vocational skills.

An internship can develop students' career opportunities and provide students the chance to practice skills and theories they learned from class (Sweitzer & King, 2013). Sweitzer and King also stated that a successful internship contains three majority domains: professional development, personal development and civic development.

According to the research of Hoang (2008), and research of Finnie and Mueller (2008), the demographics of gender, grade level and family income effect students' attitudes and decision making. Considering these factors, this researcher decided to investigate deaf students' perceptions towards vocational internships according to grade level, gender and family income at the Qujing special education school in this study.

Objectives

There are three objectives:

1. To identify the demographic factors of the deaf students including gender, grade level and family income at the Special Education School of Qujing.
2. To determine the deaf students' perceptions towards vocational internships at the Special Education School of Qujing.
3. To compare the deaf students' perceptions towards vocational internships at the Special Education School of Qujing according to their gender, grade level and family income.

Literature Review

Internship Theories

Students apply the knowledge they learn from the classroom and develop their professional skills in internships. During the experience from attending internships, self-confidence, management skills, administration skills, motivation, and maturity will be cultivated and benefit students (Sweitzer & King, 2009).

Warinda (2013) stated that internships are a popular method of experiential learning where students come face to face with the real world of work and its complexities, something that cannot be replicated in the four walls of the classroom.

Sweitzer and King (2009) indicated three significant dimensions in terms of development: personal development, professional development, and civic development.

Personal Development

For personal development, an internship is a path to develop maturity, intelligence and emotions that have important effects on an individual's life.

Sweitzer and King (2009) indicated that the internship can strongly reinforce personal growth for individuals. It is an opportunity to discover an intern's potential under the supervision of experts. It also cultivates an individual's independent problem-solving abilities and creativity.

Professional Development

Internships act a critical part in enhancing students' technical and practical skills (Warinda, 2013). Many students chose to enter an internship essentially for exploring a career and to develop professional skills. Students can also discover how those characteristics of a profession meet their personal interests and capabilities (Sweitzer & King, 2009). An internship is socialized into the standards and values of a profession (Royse, Dhooper & Rompf, 2011).

Civic Development

Being a citizen is the stage after students graduate from schools and start their careers in society. Attending an internship is similar to "testing the waters" for deaf students before their official graduation.

The aspects of a civics profession contains a wide social context of individuals, ethics, culture, and political dimensions. It requires students to observe the connection between an individual's life, work and social environments. Civic professions also allow a person to understand the relevance of his or her profession to the public (Sweitzer & King, 2009).

Perception Theory

The fundamental idea of perception refers to the process of experiencing a person. In the process, some objects (information, humans, and situations) are being perceived by people.

Pickens (2005) stated that when a person is oriented with a context or stimuli, the person renders the stimuli into some object meaningful to himself or herself based on prior knowledge or experiences. In regards to physical factors, gender, personality, and cognitive differences are considered as a factor that cause perception differences (Coren, Ward & Enns, 1999). Boundless (2015) addressed that gender, race, class, religion, and ethnicity were crucial influences to a person's perception.

Perception can be influenced by an individuals' capacity. Broadbent (1958) stated that a person cannot consciously attend to all of his/her sensory input at the same time, and the information must be processed selectively due to the limit of capacity. The key to this capacity is that the most perceived relevant information is processed. The relevance is determined by a person's current beliefs, attitudes, motivation.

Olawayie and Olamide (2013) stated that the income level of secondary school families may determine what career a student chooses during a specific time in the student's life and what choices determine a large part of that student's future.

According to Agbaje and Agbaje (2014) gender plays a crucial role in career behavior. Agbaje and Agbaje also suggested that a counseling psychologist would need to be gender sensitive in the course of performing their professional duties. An

Eyo and Edet (2011) study also showed that gender significantly influences students' occupational preferences.

Visual Perceptions of Deaf Students in Vocational Education
Hearing impairment may cause deaf students' visual sense to have been strengthened compared with an average group? People with a normal hearing capacity and people with hearing impairment have different visual perceptions. This may be caused by the demands of visual capacity. Thus, people with a hearing impairment have more visual demand in their lives (Sladen, Tharpe, Ashmead, Grantham, and Chun 2005).

The significant difference between deaf students and students with normal hearing is in visual attention. Visual selective attention refers to the ability to pay attention to stimuli that are relevant to current goals while ignoring distractions that are not pertinent (Hirshorn, 2011).

Importance of Visual Arts in Deaf Vocational Education and Internships
The visual arts are arts can be visually perceived by people. For instance, ceramics, painting, sculpture, printmaking, design, crafts, photography, film-making, and architecture are common visual arts. Numerous other artistic subjects such as performing arts, conceptual arts, textile arts are also considered as part of the visual arts. All of the seven main vocational subjects that the school provides to deaf students are relevant to the visual arts. Therefore, it enables the students to have an above average performance in visual art industries. For people who have a disability, personal and public control of one's performance of self is essential to the negotiation of one`s human, individual and creative rights (Jacobson & McMurchy, 2010).

Experiential Education
The real or simulated experience makes achievable learning through the interplay with one's real situation (Gentry, 1990). Experimental education is a reflection that integrates learning and work. Theories and skills that deaf students learn from class can be performed in a classroom, however, they are not necessarily effective in a practical situation. Eyler (2002) stated that, reflection is a connection, and it is a powerful key to a student's success, growth, learning, and development. Students can learn more about themselves and how they really feel about certain issues.

Previous Studies Deaf Studies Alumni Perceptions of the Academic Program and Off-campus Internship
Cooper, Emanuel, and Cripps (2012) discussed alumni's perceptions of their internships in their research Deaf Studies Alumni Perceptions of the Academic Program and Off-campus Internship. The research found that in the related internship and study program, most of the alumni had a positive perception towards the development of their personality, profession, and civics. Hegert (2009) indicated that the rating values of internships were linked with the configuration of the internship, teaching pedagogy, demographic factors of students, and the association between the internship and the curriculum.

Special Education in China
China is a populous country, and also a country with large population of disabled individuals. The China Disabled Persons' Federation (2008) announced the data of the Second China National Sample Survey on Disability which with the approval of the State Council of the People's Republic of China, there were 82.96 million people with different types of disabilities in the nation, 20.04 million with hearing disabilities. In 2008, the statistics of the Second China National Sample Survey on Disability showed, among the population of people with disabilities, there were 940,000 people with a university education; there were 4.06 million people with disabilities who had received a high school education; there were 12,480,000 people with disabilities who had received a junior high school education; lastly, there were 26,420,000 people with disabilities who had received a primary education.

Background of the Special Education School of Qujing, Yunnan, China
The Special Education School of Qujing is located in Qilin District in Qujing city, Yunnan province, China; it covers an area of 20.3 acres. It was founded in 1983. The school provides free education to disabled students with a full-time boarding school system.
        Besides providing students subjects that are required by the compulsory education policy, the school also provides students various vocational training.

Introduction to Vocational Internships of Special Education School of Qujing, Yunnan, China
Compared with other kinds of disability groups, deaf students have advantages to gain more working opportunities in society, and they are capable to perform jobs which only require the use of hands and visual abilities.
        The vocational classes that the school provided included the following seven subjects: interior design, crafts making, picture mounting, bronze board making, cloth sign advertising making, print ad design, and frame making. Students in the secondary level are required to attend internships in the winter break or summer break after they finish vocational subjects. The internship is considered as part of the graduation requirement.

Conceptual Framework

Independent Variables   Dependent Variables

The Special Education School of Qujing, Yunnan, China.	Deaf students' demographic factors. - Gender - Grade level - Family income	Deaf students' perceptions - Personal development - Professional development - Civic development
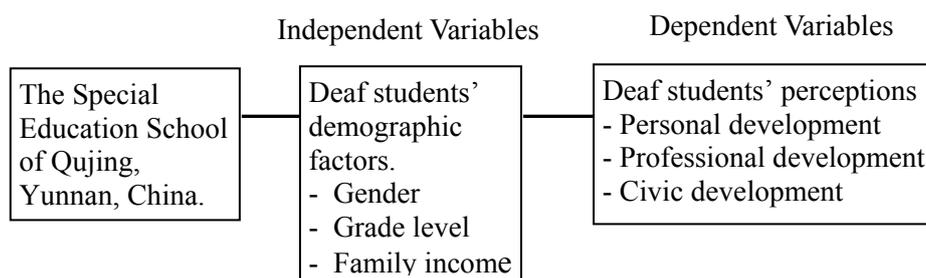
Figure 1: Conceptual Framework of The Study

Method/Procedure

This research is quantitative research. A total of 147 deaf students from Grade 7 to 9, and Vocational High School of Special Education School of Qujing were surveyed.

In the questionnaire, Section A was used to determine deaf students' demographics. In Section B, items were used to measure the students' perceptions towards vocational internships. In this research, One-way ANOVA was applied to grade level and family income. Independent Samples t-test was applied to gender.

Findings and Results

Based on the research objectives and the result of data analysis of the study, the findings and results were as follows:

Objective 1. To Identify The Demographic Factors of The Deaf Students

Table 1: Demographic Factors of Deaf Students

Demographic Factors	Variables	Frequency	Percentage
Gender	Male	106	72.1
	Female	41	27.9
Grade Level	Grade 7	39	26.5
	Grade 8	34	23.1
	Grade 9	48	32.7
	Vocational High School	26	17.7
Family Income	Below or including 1000 RMB	5	3.4
	1001-2000 RMB	20	13.6
	2001-3000 RMB	54	36.7
	3001-4000 RMB	37	25.2
	4001-5000 RMB	24	16.3
	Above or including 5001 RMB	7	4.8

In terms of deaf students' demographic factors, there were more male students than female students; students from Grade 9 were the most and students from Vocational High School were the lowest; students' family income of 2001-3000 RMB were the most, students' family income of below or including 1000 RMB were the lowest, yet slightly more than that was students' family income of above or including 5001 RMB.

Objective 2. To Determine The Deaf Students' Perceptions Towards Vocational Internships

Table 2: The Mean Score of Students' Perceptions towards Vocational Internships in Personal Development, Professional Development, and Civic Development

Perceptions	Mean	S.D.	Interpretation

Personal Development	4.18	.48	Positive
Professional Development	4.20	.18	Positive
Civic Development	3.79	.52	Positive

According to Table2. The Mean score of students' perceptions in Personal Development was 4.18; perceptions in Professional Development was 4.20; and the perception of Civic Development was 3.79. All aspects of deaf students' perceptions as positive.

Objective 3. To Compare The Deaf Students' Perceptions towards Vocational Internships According to Their Gender, Grade Level and Family Income

Table 3: Comparison of Internship Perceptions by Gender

Gender	N	Mean	S.D.	*df*	t	Sig.(2-tailed)
Male	106	4.15	.23	145	.249	.77
Female	41	4.13	.25			

According to the result of Table 3. There were no significant differences on the deaf students' perceptions towards vocational internships according to their gender.

Table 4: Comparison of Internship Perceptions by Grade Level

Vocational Internships	Sum of Squares	*df*	Mean Square	F	Sig.
Between Groups	5.741	3	1.914	115.008	.00
Within Groups	2.379	143	.017		
Total	8.120	146			

As illustrated in Table 4. There were significant differences on the deaf students' perceptions towards vocational internship according to their grade levels.

From the Scheffe's Multiple Comparisons in Table 5, it has been found that: The mean of each grade level is significantly different than another. The order of means that displayed from lower to higher followed Grade 7, Grade 8, Grade 9 and Vocational High School.

Table 5: The Post Hoc Scheffe' Multiple Comparisons among the Grade Levels

(I) Group	(J) Group	Mean Difference (I-J)	Sig.
Grade 7	Grade 8	-.27526[*]	.00
	Grade 9	-.40303[*]	.00
	Vocational high school	-.55619[*]	.00
Grade 8	Grade 9	-.12776[*]	.00
	Vocational high school	-.28093[*]	.00
Grade 9	Vocational high school	-.15316[*]	.00

* Sig< .05

Table 6. Demonstrated the comparison of internship perceptions by the deaf students' monthly family income.

Table 6: Comparison of Internship Perceptions by Income

Vocational internships	Sum of Squares	*df*	Mean Square	F	Sig.
Between Groups	1.771	5	.354	7.867	.00
Within Groups	6.349	141	.045		
Total	8.120	146			

There were significant differences on the deaf students' perceptions towards vocational internships according to their family income.

Table 7: The Post Hoc Scheffe' Multiple Comparisons among the Family Incomes

(I) Group	(J) Group		Mean Difference (I-J)	Sig.
Below or including 1000 RMB	1001-2000 RMB		-.30638	.15
	2001-3000 RMB		-.36162*	.03
	3001-4000 RMB		-.36998*	.02
	4001-5000 RMB		-.51667*	.00
	Above or including 5001 RMB		-.63951*	.00
1001-2000 RMB	2001-3000 RMB		-.05524	.96
	3001-4000 RMB		-.06360	.95
	4001-5000 RMB		-.21028	.06
	Above or including 5001 RMB		-.33313*	.03
2001-3000 RMB	3001-4000 RMB		-.00836	1.00
	4001-5000 RMB		-.15504	.12
	Above or including 5001 RMB		-.27789	.07
3001-4000 RMB	4001-5000 RMB		-.14668	.23
	Above or including 5001 RMB		-.26953	.10
4001-5000 RMB	Above or including 5001 RMB		-.12285	.87

* Sig< .05

According to Table 7. Within the five pairs which were significantly different at a .05 level of significance, the means of below or including 1000 RMB is lower than the mean of 2001-3000 RMB, the mean of 3001-4000 RMB, the mean of 4001-5000 RMB, and the mean of above or including 5001 RMB. Additionally, the mean of 1001-2000 RMB is lower than the mean of above or including 5001 RMB. Meanwhile, the remaining pairs of means (10 pairs) are not significantly different at a .05 level of significance.

Discussion

The discussion with the research objectives were stated below:

The Demographic Factors
In the results of the study, the total number of male students is more than female students. In the four grade levels, grades with student numbers from the most to the least are Grade 9, Grade 7, Grade 8, and Grade 9 respectively. For family income, students' numbers from highest to lowest are 2001-3000 RMB / month, 3001-4000 RMB / month, 4001-5000 RMB / month, 1001-2000 RMB / month, below or including 5000 RMB / month, and above or including 1000 RMB / month respectively.

According to the statement of teachers from this school, most students in this school are from a rural area of Qujing, which resulted in a family income generally lower than people living in Qujing city. This is because in a rural area, there are often insufficient opportunities for deaf students to find jobs that they are capable to perform. Thus families who have deaf children prefer to send these children to a school that has some basic vocational training. Some families expect the school to provide vocational training that relates to the newest technology. Therefore their children can have a higher income compared to people who work in traditional industries. However, some families believe nine years of school education (from Grade 1 to Grade 9) is enough for their children to gain the necessary skills to hold jobs. As a result some students choose to have higher education in some special education institutes, colleges or universities, and the number of students at a vocational high school level is lower.

The Deaf Students' Perceptions
Sweitzer and King (2009) indicates three significant dimensions in terms of development: personal development, professional development, and civic development. According to the findings of the study, the deaf students' perceptions towards vocational internships are positive, and additionally the deaf students' perceptions towards vocational internships in personal development, professional development, and civic development are all positive.

Due to expectations from families and students themselves, students have stronger perceptions towards professional development compared to personal development and civic development. Internships act a critical part in enhancing students' technical and practical skills (Warinda, 2013). Many students chose to enter an internship essentially for exploring a career and to develop professional skills. An internship is socialized into the standards and values of a profession (Royse, Dhooper & Rompf, 2011).

According to the result, students have a strong perception towards having the necessary experience to increase their chances to find a good job, and to have the right career path. For the item "Internships should provide for the needs of all students", the teacher who helped the researcher to survey the students explained the item as "needs of having internship opportunities", which fit for the aim of the item. Most students' families are not in the city, so the families and the students are willing to receive internship opportunities from the school. Yet there are some students who found internships by themselves. In the seven vocational skills, in

regards to if the skill matches students' personal vocational education goals, picture mounting has the highest mean score, which means students have a high perception of studying picture mounting as vocational education goal. In regards to which skill was easy to do, picture mounting has the highest mean score, which means students have high perceptions in considering picture mounting as an easy skill. However, print ad design has the lowest mean score, which means that students have low perceptions in considering print ad design as an easy skill. In regards to considering which skill is an important skill, interior design, print ad design, and frame making are listed as the top three choices, respectively. "All three skills were new vocational subjects which were just put into the vocational training program in recent years due to the boost in the markets of interior design, ad design and frame making", according to the teacher of a vocational training class.

Moreover, at this school, civic knowledge is not an individual subject, and all students have less of a chance for social experiences because of the boarding school nature. Civic duties also require a person to understand the relevance of his or her responsibility to the public (Sweitzer & King, 2009). Thus the internships are good opportunities for the deaf students to cultivate their civic knowledge. Sweitzer and King (2009) indicate that the aspect of civics in an internship may be overshadowed by the expected personal and professional dimensions. However, students have to consider civic development as well as personal and professional development in order to participate in a nation. Every type of profession has its connection to society; professions have progressed because of public value in the social context. Nevertheless, as all internships are limited in the time range of three days to three months, most students still do not have enough time to gain civic development experience from their internships. Hence, students have a lower perceptions towards civic development.

Deaf Students' Perceptions towards Vocational Internships
The results of the research showed there are no significant differences on the deaf students' perceptions towards vocational internships at the Special Education School of Qujing according to their gender. However, there are significant differences in deaf students' perceptions towards vocational internships at the Special Education School of Qujing according to their gender, grade level and family income.

Males and females develop a distinction in behavior, mentality, emotional features, and social roles according to the society. An Eyo and Edet (2011) study also showed that gender significantly influences students' occupational preferences. However the result of this research did not support these ideas.

Each grade level has a significant difference with other grade levels in regards of deaf students' perception towards the vocational internship. The deaf students' perceptions from low to high are Grade 7, Grade 8, Grade 9 and Vocational High School respectively. Pickens (2005) indicates that the third stage of a perception processing system entails the brain organizing information based on prior knowledge and experiences. Students from different grade levels have different prior knowledge and experiences, thus the perceptions of students in different grade levels are significantly different with other grade levels.

There are only five groups that deaf students from both of the family income levels have significant perception difference. There is a slight trend that students with lower family income have lower perceptions, especially students from families with a monthly income of below or including 1000 RMB. Family income is a significant component that affects a student's professional development. It determines a student's budget for his or her education, and if a parent had exerted enough pressure on the student to enter a particular career field. If the student has no current plans, then students would follow their parents' suggestion (Olamide & Olawayie, 2013).

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THE RELATIONSHIP BETWEEN SELF-COMPASSION AND ACADEMIC PROCRASTINATION BEING MEDIATED BY SHAME AND ANXIETY

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Abstract: This study was conducted to investigate the direct and indirect influences of self-compassion on procrastination among Assumption University students in Thailand. The sample consisted of 200 respondents (male: *n*=74, 37%; female: *n*=126, 63%) who voluntarily filled in the study's survey questionnaire consisting of the State-Trait Anxiety Inventory (STAI- Form Y) to measure anxiety; the Procrastination Assessment Scale for Students (PASS) to measure the level of academic procrastination; the Self-Compassion Scale (SCS) to measure the level of self-compassion, and the Test of Self-Conscious Affect-3 (TOSCA-3) to measure the level of shame. Results from the path analysis indicated that the participants' reported level of self-compassion was negatively associated with their level of academic procrastination; that is, the higher their level of self-compassion, the lower their reported level of academic procrastination. It was also found that self-compassion had a negative influence on the participants' reported level of anxiety. Their reported level of self-compassion was not found to have any significant influence on their reported level of shame. Finally, neither shame nor anxiety had a significant influence on academic procrastination. The theoretical and practical implications of these findings are discussed.

Introduction
For many university students, setting goals and accomplishing tasks that are directly relevant to the achievement of these goals are part-and-parcel of their academic life. However, despite having the best intentions, many students fail to complete their academic tasks in a timely manner. In other words, for many students, the desire to procrastinate represents a barrier to the successful completion of their degrees.

Procrastination is generally defined as the intention or the thought of completing a task but failing to finish the task within the expected time limit (Senecal, Koestner, & Vallerand, 1995). It is the act of delaying starting or completion of a task that needs to be done by a given time. Procrastination is considered a maladaptive behavioral habit which often results in a vicious cycle of putting tasks off until the last minute and experiencing the discomfort of knowing that time has just about to run out. The results are anxiety and stress in trying to get an important task done on time, and the feeling of despair in knowing that the result can never be as good as if one had not procrastinated. Beswick, Rothblum, and Mann (1988) found a negative relationship between procrastination and academic performance, with students who procrastinate by putting off studying for their exam experiencing greater anxiety during the exam. At this point it is necessary to make a distinction between procrastination and simple delay. According to Pychyl (2010), when people delay certain tasks due to unforeseen/uncontrollable life circumstances (e.g., a child's illness), they are actually setting priorities, and as this is not a voluntary delay, it is not procrastination. However, when one procrastinates, one

needlessly and *voluntarily* chooses to put off an intended action that needs to be attended to at present.

One potential explanation for the individual's tendency to put off tasks could be the negative emotions linked to an activity. In their review of the intra-personal processes underlying procrastination, Sirois and Pychyl (2013) suggested that procrastination may be described as prioritizing of short-term mood regulation at the cost of long-term goals. Procrastination generally takes place when individuals are faced with tasks that are perceived as aversive (Blunt & Pychyl, 2000). In the face of unpleasant feelings and negative mood brought about by aversive tasks, many individuals resort to engaging in avoidant behavior that temporarily relieves them of the distress associated with the task at hand (Tice & Bratslavsky, 2000). In other words, they focus on short-term mood repair as a strategy to regulate their emotions (Sirois & Pychyl, 2013). Thus, procrastination can be considered a strategy employed by the individual to deal with distressing emotions such as shame and anxiety experienced when faced with a perceived aversive task.

The Relationship between Procrastination and Anxiety
Past research has clearly shown a positive relationship between feeling of anxiety and the tendency to procrastinate on important tasks. For example, McCown and Johnson (1991), found that when faced with an anxiety-provoking activity, people with the tendency to procrastinate are more likely to engage in tasks that are less anxiety-provoking, and therefore putting off the main task to some other time. Rothblum et al. (1986) found that students high in test anxiety and anxiety-related symptoms tend to procrastinate frequently. Similarly, Beswick et al. (1988) and Senécal et al. (1995) found procrastination to be associated with trait and/or state anxiety. In support of these findings, Hobfoll (1989) proposed the Appraisal-Anxiety-Avoidance (AAA) model to explain the link between feelings of anxiety and the tendency to procrastinate. According to this model, if an individual perceives a situation as *intimidating* and they see themselves as *incompetent* to deal with the threat, they tend to escape from it. Thus, according to this model, people high in fear of failure or feelings of discomfort in performing certain types of tasks, experience high level of anxiety, and as a way to alleviate their anxiety, they put off these tasks. For highly anxious people, procrastination takes on the quality of a potent negative reinforcer.

The Relationship between Procrastination and Shame
The relationship between shame and procrastination appears to be obvious and logical. Shame, as a self-conscious emotion, entails looking at the *self* as flawed and inadequate, such as *I am a bad person*. What accompanies this global negative evaluation about the self is the desire to keep one's self out of sight and to disappear. In a similar vein, a major reason why procrastinators procrastinate is because of fear of receiving a negative evaluation. As suggested by Fee and Tangney (2000), one way for individuals to escape from loss of face and feeling of shame is to procrastinate, that is, to escape from the immediate task in order to save one's face.

The Relationship between Procrastination and Self-Compassion

One of the promising avenues to further research and intervention on procrastination is the construct of self-compassion. Self-compassion entails the need for as well as the act of being kind towards oneself in the experience of hardship (Salzberg, 1997). According to Neff (2003a), self-compassion is defined as involving three components: self-kindness, common humanity, and mindfulness. Studies have indicated that people high in self-compassion are less prone to self-criticism, anxiety, and depression (Neff, 2003a). Additionally, they enjoy more feelings of connectedness and satisfaction in life. Finally, they are less prone to rumination and thought suppression, and they tend to pay attention to their feelings and make sense of them (Neff, 2003a). A study by Breines and Chen (2012) on the effect of self-compassion on self-improvement motivation suggests that self-compassion's bolstering of positive emotion curbs the influence of negative feelings and attitude towards the self and helps individuals see that they are not defined by their shortcomings. In sum, self-compassion allows for recognition of one's suffering and moving beyond that suffering in order to have a more adaptive life by adopting a more balanced awareness and expression of self-kindness (Neff, Rude, & Kirkpatrick, 2007). On the other hand, less self-compassionate individuals are more prone to types of mental states that involve rumination, isolation, and self-criticism (Neff, 2003b).

The Relationship between Self-Compassion and Shame
From a conceptual perspective, it seems reasonable to expect self-compassion to help lessen the experience of shame. The underlying components of self-compassion - mindfulness, self-kindness, and common humanity - appear to be effective in dealing with different aspects of shame, such as withdrawal from social life, avoidance of painful experiences, and self-devaluation. In line with this conceptual perspective, a study by Barnard and Curry (2012) reported a strong negative relationship between self-compassion and shame. Studies with academic samples have shown self-compassion to be negatively associated with self-blaming and positively linked with fewer self-critical thoughts (e.g., Leary et al., 2007). In clinical settings, Compassion Mind Training (CMT) was developed as a means of intervention for high shame and self-critical people (Gilbert & Irons, 2005). Taken together, past research findings suggest strongly that being self-compassionate or developing self-compassion has soothing quality that can counteract the threat of self-attack and self-criticism that accompany shame.

The Relationship between Self-Compassion and Anxiety
With respect to the relationship between self-compassion and anxiety, self-compassion can be regarded as a valuable emotional regulation strategy, and as such it makes sense to expect that individuals high in self-compassion, as compared to those low in self-compassion, would show healthier mental functioning, such as lower levels of anxiety and depression (Neff, 2003a). In examining the idea that self-compassion may help individuals to deal more effectively with negative life experiences, Leary et al. (2007) found that self-compassionate individuals reported less personalizing, greater equanimity, and less catastrophizing. In another study conducted by Williams, Stark, and Foster (2008), they found that students who were high in self-compassion exhibited less academic anxiety than those low in self-

compassion. Overall, these findings suggest that self-compassion can be a protective resource against anxiety, particularly in situations perceived as stressful.

Academic procrastination has reached such alarming levels among university students that unless the trend can be halted or reversed, the practice will disrupt the academic lives of many students who have the best intention to achieve academic success, but fail in their endeavor. According to Ferrari (2010), 70% of doctoral students fail to complete their degree, with an increasing number of students reporting problems with procrastination (Kachgal, et al., 2001). Despite the fact that procrastination is such a widespread phenomenon affecting the lives of so many undergraduate and graduate students, very few studies have been conducted to investigate the association between self-compassion and procrastination (Sirois, 2014; Williams, Stark, & Foster, 2008; Iskender, 2011). While past empirical studies on procrastination have tended to focus on the factors that are associated with the motive to procrastinate, there is a dearth of literature and empirical findings on its antecedents as well as potential mediating variables. The current study examined the direct and indirect influences of self-compassion on procrastination among Assumption University students in Thailand. More specifically, the study has been designed to investigate the research question of how may self-compassion influence students' academic procrastination both directly and indirectly, being mediated by their levels of anxiety and shame? Figure 1 presents the fully identified path model to be tested.

(See Figure 1 on the next page)

Method

Participants
The participants consisted of graduate university students studying at Assumption University, Thailand. The participants were recruited via convenience sampling. The sample consisted of 200 respondents of whom 74 (37%) were male and 126 (63%) were female. Their ages ranged from 21 years to 52 years, with a mean age ranging from 23 to 38 years. The respondents were studying in various programs in Business, Law, Psychology, Management, Philosophy, IT, Tourism, and English Language Teaching. The durations of their study ranged from half a year to 6 years.
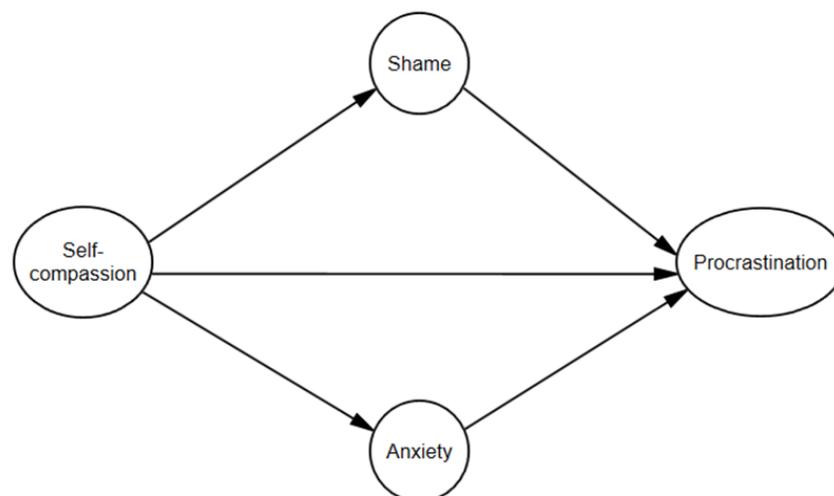
Figure 1: Path Model of The Predictive Relationship between Self-Compassion and Procrastination Both Directly and Indirectly, Being Mediated By The Affective Components of Anxiety and Shame

Research Instrumentation

The present study employed a self-administered survey questionnaire consisting of five sections. Prior to filling in the study's questionnaire, potential participants were informed of the general purpose of the study, that participation is completely voluntary, and that they can withdraw from the study anytime without penalty. Informed consent was obtained from every participant prior to filling in the questionnaire

Section 1 consisted of a researcher-constructed section written to tap the participants' age, gender, university program or major, and year in the program.

Section 2 consisted of The State-Trait Anxiety Inventory (STAI) (Spielberger et al., 1983). The measure consists of 40 items in two sub-scales measuring state and trait anxiety. The S-Anxiety section (Form Y-1) assesses individuals' anxiety levels "in the moment", involving feelings of nervousness, worry, and apprehension. The T-Anxiety section (Form Y-2) measures participants' "general" levels of anxiety as a personality trait. The total score for both sub-scales ranges from 20 to 80, with higher scores indicating higher levels of anxiety.

Section 3 consisted of the 18-item Procrastination Assessment Scale for Students (PASS) developed by Solomon and Rothblum (1984) to tap the prevalence of procrastination by college students. The 18 items were written to measure the prevalence of procrastination in six academic areas. A total procrastination score is calculated by summing the scores across the 6 academic areas with the total score ranging from 18 to 90, with higher scores indicating higher levels of academic procrastination.

Section 4 consisted of the 26-item Self-Compassion Scale (SCS) developed by Neff (2003a) to assess levels of self-compassion. The SCS yields the six sub-scales

of *Self- Kindness* (5 items), *Self-Judgment* (5 items), *Common Humanity* (4 items), *Isolation* (4 items), *Mindfulness* (4 items), and *Over-Identification* (4 items). A total score is obtained by summing across the sub-scales' scores, with scores of Self-judgment, Over-identification, and Isolation being reverse-coded. Higher scores on the SCS indicate higher levels of self-compassion.

Section 5 consisted of the Test of Self-Conscious Affect-3 (TOSCA-3) (Tangney, et al., 2000) measuring shame-proneness. The score for the Shame scale is the sum of the respondent's answer to items 1a, 2b, 3e, 4a, 5c, 6c, 7a, 8a, 9b, 10d, 11b, 12b, 13b, 14a, 15a, and 16c. The scores for the Shame scale range from 16 to 80, with higher score indicating higher level of shame.

Procedure

A pretest of the questionnaire was conducted on a sample of 20 students prior to the actual study to check for errors and for readability. Data collection took the following procedural steps. Participants were solicited from graduate programs. In order to ensure a diverse sample, participants were contacted from different departments. Questionnaires were distributed to the participants in their classes and the necessary instructions and information about confidentiality and anonymity were provided. The researcher conducted the study in person and was present with the participants in order to make any necessary clarification.

Results

Path Analysis

In order to test the hypothesized direct and indirect relationships indicated by the path model in Figure 1, path analysis via multiple regression analysis was conducted. The analyses involved (1) regressing the dependent variable of academic procrastination on the predictor variables of self-compassion, shame, and anxiety; and (2) regressing the mediator variables of shame and anxiety on the predictor variable of self-compassion. The results of this path analysis are provided in Figure 2.

(See Figure 2 on the next page)

The results showed that the participants' level of self-compassion has a direct negative relationship with their reported prevalence of academic procrastination. Therefore, the higher the respondents' reported level of self-compassion, the less frequent they reported procrastinating on academic tasks, (Beta = -.30). Self-compassion was not found to have any indirect influences on academic procrastination being mediated by the participants' reported levels of trait anxiety and shame. However, self-compassion was found to be negatively related to anxiety, such that the higher the respondents' level of self-compassion, the lower their reported level of anxiety, (Beta = -.52). The respondents' level of anxiety however was not found to be related to their reported prevalence of academic procrastination.
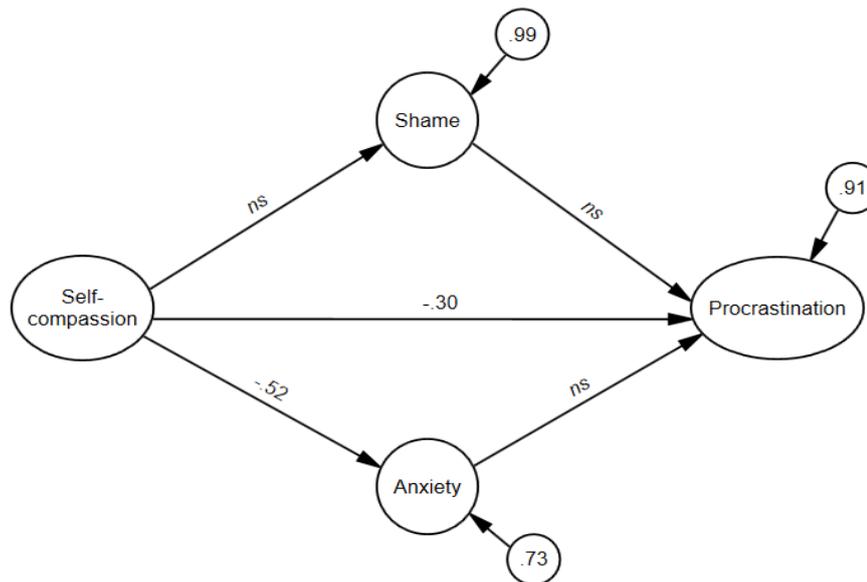
Figure 2: Path Model of The Predictive Relationship between Self-Compassion and Procrastination Both Directly and Indirectly, Being Mediated by The Affective Components of Anxiety and Shame (Ns = Not Significant, p<.05)

Figure 2 also reports the standardized residual for each dependent variable for the path model. These coefficients provide an estimate of the proportion of variance in each dependent variable not predicted by the model. Alternatively, subtracting these values from 1.00 indicates the proportion of variance predicted by the model. These coefficients indicated that the path model accounted for 1% of the variance in shame, 27% of the variance in trait anxiety and 9% of the variance in the reported prevalence of procrastination.

Discussion

Results from the path analysis indicated that the students' level of self-compassion had a direct influence on their reported level of academic procrastination. Thus, the higher the participants' reported level of self-compassion the lower was their reported level of academic procrastination. This finding is in line with those obtained from past studies which have shown an inverse relationship between self-compassion and procrastination. For example, in a meta-analysis on the link between self-compassion and procrastination, Sirois (2013) found that self-compassion is moderately and negatively correlated with trait-procrastination. In a study conducted with college undergraduates, Williams, Stark, and Foster (2008) found that students high in self-compassion reported less inclination to procrastinate on academic tasks.

Results from the path analysis indicated that the emotive variable of shame was not a significant mediator between the participants' reported level of self-

compassion and their tendency to procrastinate. This finding runs contrary to those obtained from previous studies which have shown a strong inverse relationship between shame and self-compassion. As articulated earlier, treating the self as inadequate and devaluating and criticizing oneself can give rise to feelings of shame which in turn, can adversely affect the individual in different areas of his/her functioning. As pointed out by Gilbert and Irons (2005), fostering a sense of self-compassion can help individuals relieve the destructive effects of shame. This contention can be conceptually justified since the three elements of self-compassion - *self-kindness*, *mindfulness*, *common humanity* – are assumed to counteract the adverse effects arising from feelings of shame, such as withdrawal from social life, avoidance of painful experiences, and negative self-devaluation. In terms of the hypothesized mediating role of shame, the current study also did not find shame to be significantly related to procrastination. This finding is unexpected and indeed runs contrary to those obtained from previous research. Concerns over negative evaluation (resulting in shame) and the need to escape and to self-protect are assumed to underlie the relationship between shame and the tendency to procrastinate.

One reason why this study failed to find significant relationships between shame and the factors of self-compassion and procrastination maybe partly due to how shame was operationalized in the present study. Feeling of shame is a highly sensitive affective state and it is unclear whether the participants in the study were totally honest in their responses to the shame scale's items or that their responses merely reflected their social desirability bias. According to Lewis (2008), there has been little attention given to self-conscious emotions like shame, which can explain why the instrument employed in the present study could have failed to adequately operationalize the levels of shame. He proposed two reasons for this, one related to observation and the other related to elicitors of these emotions. First, to describe emotions such shame or guilt, one cannot merely study facial expressions; rather, one needs to pay attention to bodily movement as well. Second, self-conscious emotions are not evoked by clear and identifiable elicitors.

With respect to the proposed mediating role of anxiety, the current study did not find a significant relationship between trait anxiety and academic procrastination among the study's student participants. From a theoretical perspective there is a wealth of information to suggest that the experience of heightened anxiety is related to task disengagement, as in the case of procrastination. However, in terms of empirical support, research on the relationship between anxiety and procrastination had produced equivocal results, with some studies showing a significant relationship while others showing no relationship at all. In explaining these inconsistencies from a methodological perspective, Milgram and Toubiana (1999) argued that how the concepts of procrastination and anxiety were operationalized did not always correspond with each other. This lack of correspondence is between the measurement components to which each variable refers to. For instance, Flet et al. (1995) investigated the relationship between test anxiety, which measures anxiety on specified tasks related to test-taking, and general procrastination on unspecified tasks, as well as the relationship between general anxiety, where there are no specified tasks, and academic procrastination,

where there are specified tasks on which students procrastinate. When there was correspondence between task-specific anxiety (e.g., test anxiety) and academic procrastination, it was more likely to find a relationship between anxiety and procrastination, i.e., when anxiety and procrastination were both measured with respect to the same tasks such as writing term papers or doing reading assignments. On the other hand, when there was little correspondence between task-specific anxiety and procrastination (e.g., general procrastination), no significant relationship was evident. These findings suggest that we cannot expect anxiety to be related to procrastination on a specific reading assignment if the type of anxiety that was measured referred to one's overall tendency to feel anxiety and not anxiety related to the specific task of reading assignment on which procrastination was being measured.

The results from the path analysis showed that the participants' reported level of anxiety was significantly and inversely related to their reported level of self-compassion. As such, the higher individuals' level of self-reported self-compassion, the lower their tendency to experience feelings of anxiety. This finding corroborates those obtained from previous studies which indicate that, particularly in the face of hardship, self-compassion can lead to healthier mental functioning such as lower anxiety and depression (Neff et al., 2003a; Leary et al., 2007). As Raes (2009) pointed out, although the literature is not clear about the mechanisms involved in the beneficial impact of self-compassion on anxiety, there are possible explanations for this positive effect.

Limitations of The Study

There are limitations to any empirical study and the present study is no exception. First, the specificity of the sample (consisting only of graduate students from Assumption University of Thailand) clearly limits the external validity of the study's findings. As such, given the restrictions in the characteristics of the sample, generalizing the findings of the study to the broader population of students must be done with caution.

Second, the failure to demonstrate shame as a significant mediator between self-compassion and procrastination could be due to the way this concept was operationalized in the present study. As mentioned earlier, shame can be considered a *self-conscious emotion* which may not be easily measured in a simple self-report scale such as the one employed in the present study. This is because self-conscious emotions are not evoked by clear and identifiable elicitors. Thus, when studying and measuring self-conscious emotions, there are intricate cognitive processes at work which center around the concept of the self and which may not be captured adequately by a simple self-report scale.

Third, the present study employed path analysis which is correlational and not experimental (i.e., the study did not manipulate the main variables). As such, the design of study failed to establish causality, and the obtained results can only be explained in terms of relationships.

Conclusion

Overall, the findings from the present study suggest that self-compassion has a

positive influence on procrastination by lowering the participants' tendency to procrastinate in their academic tasks. While this finding is reassuring, there is still much more to be investigated about the positive role that self-compassion plays in promoting positive living. For the present study what remains unclear are the mechanisms through which self-compassion exerts its positive influences on the way individuals live their lives. Furthermore, in line with positive psychology, the present study clearly demonstrates that self-compassion is a significant positive psychological attribute that conjures up inter-connectedness, feelings of kindness and equanimity, high levels of optimism, motivation, and positive affect in countering life's adversities.

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A PROPOSED METHOD TO DEVELOP GOOD GOVERNANCE ATTRIBUTES OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMES) FOR HIGHER EDUCATION STUDENTS

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Abstract: This research aims (1) to study current conditions relating to practices of good governance attributes of Thai SMEs and (2) to study perception, recognition and presentation of methods to develop good governance attributes of SMEs for higher education students. The data was collected by using interviews and surveys from the samples including higher education students who were studying in the fields of entrepreneurship, business owners, trading and management of SMEs since the third year up in a total of one hundred people and entrepreneurs in SMEs who won good governance award of the year during 2008-2014 in a total of five people. The data was analyzed by statistics, frequency, percentage, average, standard deviation and content analysis.

The research results can be found that the students had perception and recognition in good governance attributes of SMEs in a single dimension by focusing on practices in good governance of SMEs that relates to good governance in a good level. This reflects that these students had morality, ethics and good governance in their good natures. However, considering a crossroad between realization of profits and good governance in responsibility on stakeholders, it indicates that the students focused on realization of profits over the issue of good governance. Therefore, developing students on good governance attributes of SMEs should be focused on creating a balance between these two factors through three good practice guidelines including good practices on (1) Employee (2) Consumers or Customers and Partners (3) Society and Environment on the basis of six principles of good governance including (1) Accountability (2) Ethics (3) Participation (4) Rules of Law (5) Value for Money and (6) Transparency.

Keyword: Good Governance Attributes of Small and Medium-sized Enterprises for Students.

Background and Significance of the Problem

The context of entrepreneurship in SMEs is currently more relevant to Thai students due to the changed conditions of the contexts of economy and globalized society are beneficial to conducting business more easily. As a result, many students do not require to choose their path of life to be an employee or a salaryman. They would like to enhance their quality of life and change their social status to be an entrepreneur after graduating from university. This is consistent with the idea of changing the world at least 10 years or 'Megatrend' which indicated that the world economy within the next 10 years will be driven by emergence of a large number of new entrepreneurs in SMEs.

However, the current situations of entrepreneurship in Thai SMEs that ignores applying good governance to be a part of business management and takes into account only the best interest of business profitability is resulting in consumer complaints that are likely to increase steadily. This problem is caused by most of entrepreneurs in SMEs who consider good governance as an insignificant issue and the factor that increases business cost. As a result, they give low priority to this matter. This is a matter of concern for Thai SMEs due to the context of conducting

business, a part of globalization, culminates good governance and social responsibility in global trade rules. This contributes to competitive disadvantage in Thai SMEs (Office of Small and Medium Enterprises Promotion, 2011). Therefore, entrepreneurs in Thai SMEs need to bring the concept of good governance to be a part of business management in order to optimize and develop production capability of goods and services to receive international standards in order to cope with competition rules of global trading platform in the future.

Due to the fact of ignoring good governance by entrepreneurs in SMEs that has actually taken place in Thai society, it is the issue that should be focused by higher education institutes due to entrepreneurship is one of the goals of living for many students after graduation from universities. To build awareness to urge students to aware of the importance of such the matter, higher education institutes which are the main mechanism in acculturation, cultivation, and development of good governance to students should herewith focus on creating skilled people with morality simultaneously. This is quintessential to Thai education since ancient times and consistent with the education standards framework of Office of the Higher Education Commission that focuses on expectation to support students to have morality and ethics as priority (Office of the Higher Education Commission, 2013). Therefore, development of morality, ethics and good governance should be implemented in higher education institutions to get involved in cultivating in minds of students to ensure that they will be able to live as entrepreneurs in SMEs with the concept of good governance after graduation from their universities and be desirable Thai higher education students according to ideals of higher education in Thailand indeed.

Currently, higher education institutions will support cultivation, conveyance of concepts as well as practices of moral, ethics and good governance of good entrepreneurship in SMEs by intervening this issue in contents of academic courses, researches and activities under student affairs. There are three interlocking agencies involved in these responsibilities, including academic affairs, student affairs and researches (Vallapa Thephassadin, 1995). This is corresponding to the theoretical concepts of Chickering, Reisser, Kohlberg and Gilligan which elevate development of morality, ethics and good governance to students in advanced level by supporting students to access to values of overall society, to recognize the responsibility and to build social peace to all stakeholders in the society according to the universal ethics (Chickering & Reisser, 1993; Kohlberg, 1969; Gilligan, 1982). This is indifferent from the context of entrepreneurship in possessing good governance attributes of SMEs.

Research Objectives
There are two objectives
1. To study current conditions relating to practices of good governance attributes of SMEs.
2. To study perception, recognition and proposal of methods to develop good governance attributes of SMEs for higher education students.

Research Framework

1. To focus on good governance attributes of SMEs by bringing criteria for consideration from both public and private agencies that support SMEs in a total of eight agencies, including Office of Small and Medium Enterprises Promotion, Thai Institute of Directors, Institute for Small and Medium Enterprises Development, Puey Ungphakorn Institute, The Thai Bankers Association, Bank of Thailand, Institute of Management Education for Thailand, and Regulation of the Office of the Prime Minister.

2. To give precedence to SMEs as defined by Ministry of Industry which possesses the value of fixed assets (excluding land) not exceeding two hundred million baht and labor employment not over two hundred people. In addition, it is requires to be enterprises established in the form of juristic person in charge of Department of Business Development, Ministry of Commerce in the term of company registration.

3. To focus on development of undergraduate students who are studying in the third year over in the subjects relating entrepreneurship, SMEs or business owner. Because these subjects will support readiness of students to become an entrepreneur effectively.

Research Framework

(See Figure 1 on the next page)

The framework mentioned above indicates the methods to develop good governance attributes of SMEs for students who aim to become entrepreneurs in SMEs in a long term through good practices to stakeholders following six principles of good governance associated with methods to develop morality, ethics and good governance for high education students.

Research Methodology

This research is a descriptive research with five stages of research methodology as follows:

1. To study the concepts, ideas, theories, and researches related to the development of students in aspects of morality, ethics and good governance in higher education level.

Methods to Develop Morality, Ethics and Good Governance for Higher Education Students		
Student Development Theory of Chickering and Reisser	Moral Development Theory of Kohlberg	Moral Development Theory of Gilligan

⇩

Good Governance Attributes of SMEs for Desirable Students

⇧

Good Practices to Stakeholders in The Society

- Good practices to employee
- Good practices to consumers or customers and partners
- Good practices to society and environment

Rules of Law	Transparency	Participation	Accountability	Value for Money	Ethics

| Six principles of good governance |
|---|

Figure 1: A Framework of Methods to Develop Good Governance Attributes of SMEs for Students through Good Practices to Stakeholders in The Society Following The Principles of Good Governance

2. To study current conditions relating to practices of good governance attributes of Thai SMEs by collecting data and analyzing data on the concrete practices from interviewing entrepreneurs who won SMEs Good Governance Award of the Year from Institute for Small and Medium Enterprises Development, Puey Ungphakorn Institute, The Thai Bankers Association and Bank of Thailand during the year 2008 - 2014 and executives of public and private agencies with a role in promoting practices related to good governance attributes of SMEs, including Institute for Small and Medium Enterprises Development, Thaipat Institute by using a semi-structured interview to interview entrepreneurs in SMEs who won Good Governance Award of the Year ad executives of public and private agencies with a role in promoting good governance for SMEs in a total of ten people.

3. To study about recognition and awareness of practices related to good governance of SMEs by using a research tool, that is, a questionnaire related to recognition and awareness of practices related to good governance of SMEs by interviewing high education students who were studying in the field of subjects related to entrepreneurship, business owner, establishment and management of SMEs since the third year up in a total of one hundred people and entrepreneurs in SMEs that won Good Governance Award of the Year during 2008-2014 in a total of five people.

4. To analyze a gap between recognition and awareness of practices related to good governance of SMEs between students and entrepreneurs in SMEs that won Good Governance Award of the Year.

5. To propose methods to develop good governance attributes of SMEs to high education students.

Research Results

*1. Research results of principles, concepts, theories, and researches related to morality, ethics, and good governance development for higher education students f*ound that their development should be implemented in a proper hierarchy. This should be started from creating such values of individual, then gradually expanded to other people, and progressed to the highest level, which was social stakeholder (Chickering & Reisser, 1993; Kohlberg, 1969; Gilligan, 1982) as shown in Figure 2.

Individualized Value	Mankind Value	Social Value
−Accept values and beliefs with conscious mind (C) −Self-survival and self-understanding (G) −The appropriate behavior must be based on personal value (K)	−The balance between one own interests and mankind's interests (C) −Consider the authenticity justice, recognize the mankind value (K)	−Optimum development between individualized value and social responsible behavior (C) −Develop ethics into social responsibility (G) −Morals lead to peace (G)

Moral Principles (C) / (K)	Beneficence Principles (G)
• Universal standard of ethics emphasizes humanistic values for human right equality and for all mankind justice	• The Universality is compassion and assistance for each other in the society

References: "C" refers to the concept of Chickering & Reisser / "K" refers to the concept of Kohlberg / "G" refers to the concept of Gilligan

Figure 2 Relations in Morality and Ethics Development of Students from Individual to Social Value

From the Figure 2, morality, ethics, and good governance development for higher education students should begin from creating such value at individual level (Individualized Value). If practitioners do not see the benefits at individual level, it is difficult that they would practice good things for others or whole society. Therefore, the individual could create value in morality, ethics, and good governance, it is essential that they must believe in themselves and accept the value with their conscious mind, as well as they must be able to show behaviors reflecting their believes and acceptance of morals, ethics, and good governance (Chickering & Reisser, 1993; Kohlberg, 1969; Gilligan, 1982).

When practitioners begin seeing the value in morality, ethics, and good governance by their own practices, they will also begin seeing the value of other people (Mankind Value), by creating a balance between their interests and others' interests, not behaving in the way benefitting themselves but abusing others, as they adhere to the principle that all human beings should be treated on the basis of justice on values of human equality (Chickering & Reisser, 1993; Kohlberg, 1969; Gilligan, 1982).

Finally, practitioners will be able to leverage development of morality, ethics, and good governance through understanding of social value. They will recognize the responsibility and create peace for all stakeholders in society through moral principle and beneficence principle as universal ethical standard (Gilligan, 1982). This is associated with desirable attributes of Thai graduates, as the higher education expect that Thai graduates can develop their behaviors with morality, ethics, and accountability in both public and personal, have ability to adjust their lifestyle amidst the conflict of values, develop their habit and practice as morals in both social and private matter (Office of the Higher Education Commission, 2013).

2. Research results of current conditions relating to the practice of good governance attributes of Thai SMEs found that a good practice is to focus on business owner due to SMEs are driven by the business owner, if the business owner focuses and brings this matter up as a part of business management, practices in good governance attributes will be more evident. Especially there should be guidelines in the form of activities that can motivate the employees of the organization, emphasizing step-by-step practices starting from something close to the organization's attention. Moreover, government agencies related to the development of good governance attributes for SMEs should select business enterprises being awarded for outstanding good governance to be models to convey their practices to other enterprises. And this should be done continuously to be recognized broadly in society. The practice of good governance attributes of SMEs should focus on three groups of stakeholders as follows.

A. Good governance attributes of SMEs through good practices to employees

Human development is very important, especially for SMEs that need to be driven by people. Business owners should create good morale and encouragement so employees want to work for the organization. Returns in the form of salary or welfare must be consistent with the existing market conditions. It should be emphasized on evaluation based on criteria to reflect the actual performance of employees (Narakorn Rachpolasit, Interview, on

April 29, 2014). However, in the context of good practice to employees, business owners may consider that they pay salaries so they should obtain value from employees, even though in fact salary is not the answer to everything. Thus, good practice to employees that the business owners should emphasize include (1) Issues related to law and regulations such as labor law, welfare conforming to minimum standard required by law, payroll to meet the agreed date and time, and more (2) Issues related to psychological sense, business owners need to be thoughtful, support employees for their happiness, create brotherhood work atmosphere, insert Buddhist thought, take care employees like family members (Yaowalak Kunakornporamat, Interview, on April 3, 2014), consider how they can support or fulfil their need and how to lead them to successfulness (Phansak Leelasuwankulsiri, Interview, on April 4, 2014).

Most large enterprises will have workers union to protect the interests of employees, but it is unnecessary for SMEs if the owners themselves can be the worker union. So the owner of SMEs can easily be trusted by employees. Employee management is both science and art that take time. Employees need to participate more, once they understand they will take part in making the organization successful in the long term. This will positively result at a time when the enterprise are facing obstacles. These employees will be willing to reduce their own benefits to help sustain and survive the organization (Yaowalak Kunakornporamat, Interview, on April 3, 2014).

B. Good governance attributes of SMEs through good practices to consumers or customers and partners

Good practices to consumers or customers and partners is to focus on the value of goods or services by caring of owners. It starts from selecting good materials, producing products with quality as advertised, until providing after-sales services, compensation and responsibility, and solving problems for consumers (Pipat Yodprudtikan, Interview, on April 8, 2014). Additionally, the goods or services should have a value in the perspective of the consumer. Moreover on confidentiality of customer information, it is important that business owners must respect the right to privacy of others. Especially, in the present, it is the consumer era. Consumers have bargaining power. Even if the business owners do not want to focus on good governance, customer demand is a major factor causing them to change their way of doing business. For example, consumption of non-toxic food, if the operator does not adapt to changing conditions, the consumer is entitled to purchase products or services with other safer operators (Suwanchai Lohawattanakul, Interview, on June 9, 2014). So strategies to obtain repeat purchase of goods or services all need practice the good governance attributes as part in business management.

C. Good governance attributes of SMEs through good practices to society and environment

People commonly alert to social and environmental issue because it has something to do with them and affect the lives of many stakeholders. Business owners need to focus on following laws and regulations on the correct principles in adherence to the concept that the organization will not make

trouble and not exploit social community. For instant, Production at the factory must not release pollutants or waste into the environment, elevating the enterprises as free from drugs under the concept of white factory, segregation of waste, structural design of the plant with higher open on the wind direction to achieve continuous air circulation, and more (Natrapee Hangwongsakul, Interview, on May 6, 2014). Moreover, SMEs in rural areas can also help society and environment because Thailand's rural still needs more help and participation of people in society. For example, plants in communities with temples, schools, hospitals, owner can be a pioneer in the campaign to help the community through a variety of activities (Yaowalak Kunakornporamat, Interview, on April 3, 2014).

However, the relationship between profit making and good governance of social responsibility is a challenge for SMEs at present because it involves the survival of the business. Despite the fact that the maximum profit from the business is indeed the ultimate goal to obtain stability in business administration, what will happen if the context surrounding the business is not booming as vast profits of SMEs? For example, environmental pollution from the wastewater of industrial plants, contaminated food affecting the safety of consumers. These finally will lead to the collapse of the business (Jintana Boonbongkan, 2014). Thus creating a balance between profit and social responsibility in relation to the attributes of good governance is therefore important that SMEs enterprises should pay more attention.

In summary, the practice of good governance attributes of SMEs should focus on three groups of stakeholders including employees, consumers or customers and partners, and society and environment. This is in line with six principles of good governance focusing on sustainable growth, no risk of damage, responsibility to stakeholders, which are employees, consumers or customers and partners, and society and environment (Small and Medium Enterprises Development Institute, 2011) as follows:

1. Good practices to employees who have confidence in the organization that they can work in the organization in the long run through the principles of the rule of law and the principle of accountability in legal compliance for employees. Wages and salaries must be paid at the minimum rate required by law. The enterprise should have transparency in the increase in salaries, wages, and remuneration to employees with clear and acceptable way to the majority. The enterprise should provide participation by allowing employees to express their opinions, to engage in organizational development. The enterprise should employ its human resource as worthy as the wages, benefits, and costs of developing skills and knowledge to the organization's personnel. The enterprise should have virtue committing on providing great things for employees, such as hygienic workplace and accommodation and medical assistance.

2. Good practices to consumers or customers and partners who have confidence in quality products and services and repeat their purchases. The enterprise should have principles, the rule of law in the production of goods and services, including production control systems and defining standards that follow the law strictly. The enterprise should have the moral responsibility to consumers, not fraud or make disproportionate pricing. The enterprise should have

responsibility and transparency, using clear and traceable measurement to identify product's information and price. The enterprise should have principle of participation and value in view of its customers and partners to have interest as their expectation from purchase of goods or services.

3. Good practices to society and environment where the rule of law and the principle of accountability are sincerely practiced for society and environment around to create creditability and acceptance. The enterprise should have morality and cost-effectiveness principles, adhering to good treatment, respecting the right and keeping surrounding society and communities' livable and good environment to maximize public's benefits. The enterprise should have participation principle, enabling society and surrounding communities to engage in awareness and sharing ideas or opinions beneficial to coexist society and environment. The enterprise should have the transparency in the accounting system and clear and straightforward indication of financial status.

3. Review studies on perception and recognition of good governance attributes of SMEs found that the rating on perception and recognition among students about practices related to good governance of SMEs focusing on a single dimension of the six principles of good governance showed that on average 94% of the responses to questions, scores ranged from 3.62 to 3.92 (full score 5.0) which was on the threshold of the opinion expressing "Agree". However, when compared such view with SMEs won good governance of the year, it was found that the overall average opinion level of SMEs won good governance of the year was higher than the level of students. The average of the question could be separated into two groups including the first group not less than 67% between 4.6 – 5.0 which was on the threshold of the opinion expressing "Strongly Agree" and the second group not less than 33% between 3.60 - 4.40 which was on the threshold of the opinion expressing "Agree" with the good governance practice of SMEs. In addition, the standard deviation of each question of students and small and medium-sized enterprises won good governance of the Year was between 0.86 - 1.18 and 0.00 - 0.89 respectively, which was less than 1.25, and it thus meant that the respondents in both groups had opinion on the matter in the same direction.

However, considering the crossroad between the for-profit business and the good governance attributes representing responsibility to stakeholder in the society, it was found that the average of all the questions in view of the students was between 3.52 - 3.81, which was in the range of opinion "Agree" with an emphasis on business profitability rather than good governance. In addition, the standard deviation of each question was between 0.76 – 1.08, which was less than 1.25, and it thus meant that the students had opinion on the matter in the same direction. In contrast to the average of overall SMEs won the good governance of the year, which did not agree with such opinion. Its average of each question 86% was between 1.00 – 2.00 within the range of opinion "Strongly Agree" and "Disagree" with an emphasis on business profitability rather than good governance. In addition, the standard deviation of each question was between 0.00 – 1.00, which was less than 1.25, and it thus meant that small and medium enterprises won the good governance of the year had opinion on the matter in the same direction.

4. Gap analysis on perception and recognition of good governance attributes of SMEs between the students and SMEs won the good governance of the year found that the SMEs enterprises won the good governance of the year significantly had more score on perception and recognition of good governance attributes of SMEs in a single dimension focusing on good practices and responsibility to the stakeholders, than the students. The SMEs won the good governance of the year had t-test score of 9.024, which was higher than 1.67 on the confidence level at 0.00 which was less than the significant level of 0.05.

In addition, considering perception and recognition of good governance attributes of SMEs focusing on business profit rather than responsibility to social stakeholders, it was found that the students agreed with the practices in business profit pursuance without taking into account the good practice in responsibility to social stakeholders. This was reflected from the compared results of average scores. The score of student was significantly higher than the score of the small and medium enterprises won the good governance of the year. Its t-test was 8.409, which was higher than 1.67 on the confidence level at 0.00 which was less than the significant level of 0.05.

5. Proposal of good governance attributes development of SMEs for higher education students
Higher education students had a good level of perception and recognition about SMEs' good governance attributes in a single dimension which was an emphasis on good practice, responsibility to social stakeholders associated with the six principles of good governance. By agreeing with such practices, it reflected the fact that these students had morality, ethics, and good governance concept in their good spirits. However, considering the crossroad between the for-profit business and the good governance attributes representing responsibility to stakeholder in the society, the students agreed with business operations focused on business profitability without good governance principles as part of business management. This crossroad was a challenge for students to leverage their thoughts of creating a balance between the two.

Figure 3, developing students to balance between business profitability and good governance attributes with responsibility to social stakeholders is a priority issue that higher education educators should pay attention because being an entrepreneur is one of the goals of living for many students after graduation in higher educational level. It corresponds to the academic qualification standard framework of Office of the Higher Education Commission who firstly emphasize on the expectation of morality and ethics graduates (Office of the Higher Education Commission, 2013)

(See Figure 3 on the next page)

Therefore, higher education institutions should participate in developing morality, ethics and good governance for students to ensure that they can make their living as entrepreneurs in SMEs with practice of good governance attributes after

graduation from university and grow up as desirable students as the ideal of higher education of Thailand.

Good Governance Attributes of Small and Medium Enterprises

- Good practice to employees
  - cost-effectiveness , transparency, participation, accountability, the rule of law, and morality
- Good practice to consumers or customers or partners
  - the rule of law, morality, transparency, accountability, cost-effectiveness, and participation
- good practice to society and environment
  - accountability, morality, participation, transparency, the rule of law, and cost-effectiveness

Pursuit of Profitability

- Seeking balance point between highest satisfaction profit and social cost
- Social cost and company revenue should be considered for right proportion to each other
- Seeking a balance between humans, the world, profits, and desires

Figure 3: Creating A Sustainable Balance between Business Profitability and Good Governance Attributes of SMEs

Suggestion

Although today institutions of higher education have cultivated and conveyed the concept and practice of morality, ethics and good governance of SMEs in subject contents through teaching, researches and activities of the student affairs, through responsibilities of the three cooperating agencies, including academic work, student affairs, and researches, which correspond with the theory of morality and ethics development for students of Chickering, Reisser, Kohlberg, and Gilligan, promoting student development of morality, ethics and good governance so they can access the whole society value, be responsible and build a peaceful society for social stakeholders as international ethical standards, without different from the context of being SMEs entrepreneurship with good governance attributes.

However, a restriction on practice of morality, ethics, and good governance in academy today is that their cognitive domain, affective domain and psychomotor domain are separated from the actual situation. Students will obtain training related to problem solving, reading and writing, which could not make those teaching and learning can show thinking processes clearly (Collins, 2006). As a result, learners do not understand the essence of the practice of morality, ethics, and good governance. In addition, good governance attributes of SMEs should be conveyed direct experience from SMEs who are good role models, especially from SMEs good governance award of the year by Puey Ungphakorn Institute, Small and Medium Enterprises Development Institute, Thai Bankers' Association, and Bank of Thailand, which is a prestigious award to honor Thai SMEs with good governance business concept.

Therefore, the direct experience of SMEs who won the good governance award of the year, as a reliable mentor, could help convince the students to practice good governance attributes when they become the future entrepreneurs in SMEs, focusing on creating balance between business profitability and accountability to overall stakeholders, emphasizing good practice to employees through the rule of law, transparency, participation, cost-effectiveness, morality, and accountability, good practice to consumers or customers or partners through the rule of law, morality, transparency, accountability, cost-effectiveness, and participation, and good practice to society and environment through accountability, morality, participation, transparency, the rule of law, and cost-effectiveness.

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THE RELATIONSHIP BETWEEN DIVISON HEADS' LEADERSHIP STYLES AND TEACHER SATISFACTION AT SIAM COMMERCIAL COLLEGE OF TECHNOLOGY

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Abstract: This study aimed to bridge the gap between the minimal literatures in regards leadership styles and job satisfaction. To guide this study, the following two research questions were formulated: (1) what is the relationship between division heads' leadership style and teacher satisfaction at Siam Commercial College of Technology? (2) what are the influence of each component of division heads' leadership on teacher job satisfaction? This study included 166 subordinates at Siam Commercial College of Technology. Using a quantitative approach, the participants were asked to answer questions about their division heads' using the Multifactor Leadership Questionnaire and their job satisfaction using the Job Satisfaction Survey. The results from both of these surveys were computed into the Statistical Package for the Social Sciences (SPSS) software for analysis. Using descriptive analysis to find the means and Pearson correlation coefficient to find the correlation a relationship was found small relationship was found between perception of division heads' leadership style and teacher job satisfaction; r=.375 for transformational and r=.249 for transactional. These two correlations with job satisfaction both fall under the category of "weak" therefore the researcher determined that there was a slight relationship with perception of division heads' leadership styles and job satisfaction at Siam Commercial College of Technology. In addition a breakdown of all facets of leadership and job satisfaction were analyzed. The finding showed that subordinates perceived their division heads' to have a mixture of both transformational and transactional leadership with the subordinates showing a mid-range of job satisfaction. All facets of transformational leadership showed a greater correlation to job satisfaction than to half of the facets within transactional leadership (management by exception (passive) and Laissez-faire).

Keywords: Transformational, Transactional, Job Satisfaction, Leadership.

Introduction
The success or failure of any educational organization heavily depends on the teamwork and communication between administrators and their subordinates. A leader is an important person to lead the country through any crisis and develop the country in the midst of changes for the benefits of all citizens which helps the country to complete with others. The job description of an educational administrator as described by Fiore is, "an educational leader who promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community" (Fiore, 2009), simply stated to be an effective administrator one must properly facilitate work and knowledge to all levels.

To effectively facilitate, an administrator must have a number of skills such as, setting & shaping expectations, creating equilibrium, engaging staff in knowledge transfer, observing & coaching the learning process, and expanding knowledge & skills. By assisting the administrator with data illustrating their strength and

weaknesses it can increase the probability of an improvement in the administrator's effectiveness leading to the betterment of all around leadership in the organization. Furthermore by receiving information from their subordinates the facilitator is allowed to see a clear picture of their subordinate's satisfaction, which is in direct correlation of their work efforts.

Within the organization there are many teachers that lack motivation and feel distress because of the high workload, low income, and the low levels of support. By understanding the teachers themselves the organization can deploy the proper methods of leadership in order to have a more fulfilled staff in turn developing the college as a whole. If the results turn out in favor to one style or the other and even a combination of both, if used properly, could have long lasting and positive results.

Theoretical Framework

The design of this study is focused on the leadership and management styles of the division head of each of the major faculties at Siam Commercial College of Technology. The design is modeled after the following theories as a theoretical framework.

1. *Transformational Leadership Theory* in its essence is an approach that motivates subordinates though inspiration. The nature of transformational leadership is to transform subordinates from followers to leaders. "More importantly, the leader using transforming leadership style leads his or her followers by uplifting their motivation and full potential in order to achieve the common goal in a moralistic way" (Than, 2014). James McGregor Burns was first to introduce the concept but Bernard M. Bass later solidified his ideas by addressing the psychological mechanisms that define transformational leadership. Bass (1985) suggests that there are five different components of transformational leadership.

    a) Individualized Consideration: The leader fulfills the subordinate's needs, acts as a mentor, and listens to their concerns. The leader is to act as a coach; giving time, care, and support while keeping an "open door" approach.

    b) Intellectual Stimulation: With this approach leaders strive to question and challenge the norm and encourage their subordinates to do so as well. This leader uses their subordinates' creative thinking as a learning experience and in turn finds new approaches.

    c) Inspirational Motivation: The leader acts as an idealist who brings about visions that will motivate subordinates' through inspiration. Aside from creating a vision an inspirational leader must be able to articulate the vision to their followers through proper communication in order to give a clear picture and to give purpose to the followers by allowing them to connect to the leader's vision.

    d) Idealized Influence (behavior & attributed): The leader acts as a model with high work ethics and achievements, which sets the stage for their subordinates to emulate.

2. *Transactional Leadership Theory:* in general terms, is a leadership style in which the leader rewards good behavior and uses punishment for unsatisfactory work. There are four components of transactional leadership which include

contingent reward, management by exception active, management by exception passive, and laissez-faire.

Transformational leadership has played an increasing role within leadership over the years. One of the most differentiating factors of transformational from other forms of leadership is placing a higher level of needs upon subordinates as opposed to the leader. With this leadership style both parties grow in unison with one another more or less equally. By focusing on the goals of the organization, the transformational leader is able to motivate followers above what they believe they can do (Avolio, 2007).

There are major differences between transactional and transformational leadership one being that transactional leaders follow the existing structure of the organization whether that is from previous leaders within the organization or from those outside of the organization. The transactional leader gives the job expectation and rewards based on the completion of each tasks, in contrast by the transformational leader giving motivation to the subordinates to exceed the given task.

Method/Procedure
This study encompasses a quantitative approach, which will be divided into 2 phases as follows: collection of data and analyzing of data. The use of a quantitative approach consist of a Likert scale questionnaire that will be used to determine their subordinates perception of them and another Likert scale questionnaire to determine the subordinates job satisfaction.

The participants in this study were all from Siam Commercial College of Technology (Bor Wor Saw and Bor Wor Cha). All 166 teachers at the school will participate in the study. Within the vocational school there are 5 faculties with a varied amount of teachers ranging from 30 to 60 individuals per faculty. The ages and sex of the teachers vary largely and will be included in the questionnaire. In this study the population is the same as the sample because they both consist of all teachers within SCTECH.
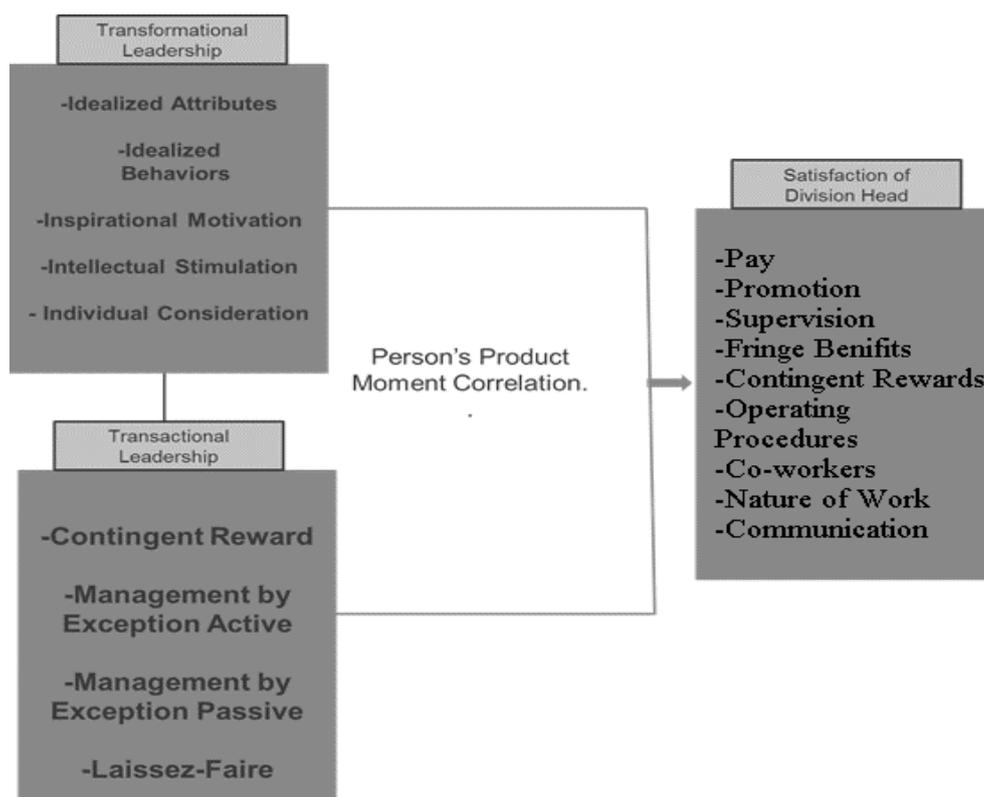
Figure 1: Conceptual Framework of A Model for Analysis of The "Relationship between Division Heads' Leadership Styles and Teacher Satisfaction at Siam Commercial College of Technology."

To carry out the research objectives, a quantitative approach is used. The quantitative approach was needed to collect data to show the difference or similarities in perception. The data was drawn from a questionnaire that was adapted from the "Multifactor Leadership Questionnaire Form". The MLQ was designed to "identify and measure key leadership and effectiveness behaviors shown in prior research to be strongly linked with both individual and organizational success" (Bass & Avolio, 1995). Known as "the best validated measure of transformational and transactional leadership" the MLQ is the #1 most used test in regards to the assessment of transformational leadership. The questionnaire utilized a 5-point Likert scale consisting of 45 questions. These items contain nine components of leadership including 5 transformational leadership factors, and 4 transactional. The components of division heads' leadership are as follows: transformational leadership, measured by intellectual stimulation (questions # 2, 8, 30, 32 on the MLQ), idealized attributes (questions # 10, 18, 21, 25 on the MLQ), idealized behavior (questions # 6, 14, 23, 34 on the MLQ), inspirational motivation (questions # 9, 13, 26, 36), and individual consideration (questions # 15, 29, 29, 31 on the MLQ) and transactional leadership, measured by contingent reward (questions # 1, 11, 16, 35 on the MLQ), management by

expectation (active) (questions # 4, 22, 24, 27 on the MLQ), management by expectation (passive) (questions #3, 12, 17, 20 on the MLQ), and Laissez-Faire (questions # 5, 7, 28, 33 on the MLQ).

The MLQ has been used numerously over the years and is a well-established being used in over 300 research programs (Bass& Avolio). The validity of the MLQ from date taken from 87 studies showed the overall validity coefficient of 0.44. The reliability of the MLQ has shown repeated results with reliability scores for each of the scales ranging from 0.74 to 0.91 which shows positive consistency (Bass & Avolio, 200). From the extensive use and positive statistical data the researcher is confident in its measurements of leadership.

The Job Satisfaction Survey is a tool designed by Professor Paul Spector from the division of psychology out of the University of South Florida. The survey is used to determine how subordinates feel about the organization and their attitudes of various attributes that lead to job satisfaction. The survey contains nine separate facets; pay (questions #1, 10, 19 , 28 on the JSS), promotion (#2, 11, 20, 33), supervision (#3, 12, 21, 30), fridge benefits (4, 13, 22, 29), contingent rewards (5,14, 23, 32), operating procedures (6, 15, 24, 31), coworkers (7, 16, 25,34), nature of work (8, 17, 27, 35), and communication (9, 18, 26, 36), which are all combined to get an overall satisfaction score. (Spector, 2011) Each facet consists of four items and a Likert scale that ranges from *strongly disagree* to *strongly agree*. The validity and reliability for the Job Satisfaction Survey was explained by Spector (1985) but since then the test has been updated and is numerously re-evaluated through its extensive research.

Initially the data used to determine reliability and validity for the JSS consisted of 3,148 respondents in 19 samples (Sector, 1985). The samples were all employees of the human resource sector. Three of the samples were used in the test—retest measure of reliability. Spector used the coefficient alpha to see the consistency of the survey. The results for the survey ranged from .60 for coworkers to .91 for overall satisfaction. From the data the measures for reliability in the JSS were above the needed requirements. A test-retest was conducted on three small samples (Spector, 1985). In these cases the correlation coefficients ranged from .37 to .74.

Spector used both a discriminate and convergent validity test using the JSS to compare with the Job Descriptive Index, which has already been tested for validity and reliability. The correlations between the two facets were significant enough to confirm the validity of the JSS.

Table 1: Summary of Research Process

Research Objective	Source of Data or Sample	Data Collection Method or Research Instrument	Data Analysis
1. To investigate the relationship between teacher perceptions of their division head's leadership styles and teacher job satisfaction.	Teachers at SCTECH	Questionnaire	Person's Coefficient Correlation
2. To investigate the significant	Teachers at	Questionnaire	Linear

factors of leadership that creates teacher job satisfaction at Siam Commercial School of Technology.	SCTECH	Regression

Findings/Results

Table 2 infers that there is a difference small difference between transformational and transactional leadership yet not enough to be statistically different; the results show that subordinates slightly more transformational than transactional.

Table 2: Means for Transformational and Transactional Leadership

	N	Mean	Std. Deviation
Transformational	166	3.90	.55
Transactional	166	3.17	.50
Valid N (listwise)	166		

A descriptive analysis was conducted to find the overall means and standard deviation for job satisfaction as shown in Table 3. The means score of 3.06 shows that the relative job satisfaction at Siam Commercial College of Technology is more or less neutral, although more data must be conducted to see a broader aspect.

Table 3: Job Satisfaction Means

	N	Mean	Std. Deviation
Job_Satisfaction	166	3.06	.36
Valid N (listwise)	166		

Presented in table 4&5, a Persons correlation coefficient was used to determine the relationship between the two leadership styles and job satisfaction. "Correlation is an effective size and so we can verbally describe the strength of the correlation using the guide that Evans (1996) suggest for the absolute value of r: .00-.19 "very weak", .20-.39 "weak", .40-59 "moderate", .60-.79 "strong", and .80-1.0 "very strong". Although the correlation between transformation and job satisfaction is higher (r=.375) than that of transformational (r=.249) they both fall under "weak" in the above mentioned scale. Although the significance is small it still proves hypothesis 1,"There is a significant difference between teacher perception of their division heads leadership style and teacher job satisfaction"

Table 4: Persons Correlation Coefficient for Transformational Leadership and Job Satisfaction

		Transformational	Job Satisfaction
	Pearson Correlation	1	.38**
Transformational	Sig. (2-tailed)		.000
	N	166	166

** Correlation is significant at the 0.01 level (2-tailed).

Table 5: Persons Correlation Coefficient for Transactional Leadership and Job Satisfaction

		Transactional	Job Satisfaction
Transactional	Pearson Correlation	1	.25[**]
	Sig. (2-tailed)		.001
	N	166	166

** Correlation is significant at the 0.01 level (2-tailed).

To answer research question 2, a breakdown of each of the leadership and job satisfaction facets were divided down to determine the weight of each of the characteristics, as shown from tables 7-15.

Participants perceived their division heads' as being mostly transformational in their leadership forms of idealized behavior (M=4.00, S.D. =.62), inspirational motivation (M=3.94, S.D. =.58), and individualized consideration (M=3.91, S.D. =.70). These findings support the literature, in which it says that good leaders are said to be visionaries who can specifically use transformational styles to improve the organization (Yukl, 2009).

The lowest scores came from two of the facets of transactional leadership; lasses-faire (M=2.57, S.D. =.853) and management by exception passive (M=2.40, S.D. =.853). These facets are considered negative and it is good that the perception of division heads' in this sense is low.

The hypothesis "there is a significant influence of each component of division heads' leadership on teacher job satisfaction." was proven to be valid by the data. The highest correlation of job satisfaction is inspirational motivation (r=.419) with its job variance at 18% (R^2=.176) followed by idealized behavior (r=.348) with its variance in job satisfaction at 12% (R^2=.121) and then intellectual stimulation (r=.346).with its variance in job satisfaction at 12% (R^2=.120). These three facets are under a transformational style of leadership and all include an active leader. The positive correlation shows division heads' that are perceived to care about their subordinates, in terms of actively pursuing ways to make them better, bring about a better all-around environment.

Furthermore hypothesis #2 shows that the exact opposite of the highest correlations in both r and in leadership style are management by exception (passive) (r=.067) with the variance in job satisfaction at 0% (R^2=.004) and Laissez-Faire (r=-.026) with the variance in job satisfaction at 0% (R^2=.001). This correlation is in fact good for the organization because the mean scores for the division heads' perceived leadership style for both of these facets are the lowest. This supports that some facets of leadership are detrimental to job satisfaction.

Table 6: Variance in Job Satisfaction by Facets

Leadership Facets	Variance in Job Satisfaction
Idealized attributes	6%
Idealized behavior	12%
Intellectual stimulation	12%
Inspirational motivation	18%

Table 6: Variance in Job Satisfaction by Facets

Leadership Facets	Variance in Job Satisfaction
Individualized consideration	8%
Contingent reward	12%
Management by expectation active	12%
Management by expectation passive	0%
Laissez-faire	0%

Table 7: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

Equation	Model Summary				Unstandardized Coefficient		Standardized Coefficient
	R Square	F	df	Sig.	Constant	b1	Beta
Linear	.058	10.10	1	0.001776	2.56	.13	.24

The independent variable is idealized attributes

Table 8: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

Equation	Model Summary				Unstandardized Coefficient		Standardized Coefficient
	R Square	F	df	Sig.	Constant	b1	Beta
Linear	.12	22.63	1	0.000004	2.25	.20	.35

The independent variable is idealized behavior

Table 9: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

Equation	Model Summary				Unstandardized Coefficient		Standardized Coefficient
	R Square	F	df	Sig.	Constant	b1	Beta
Linear	.12	22.32	1	0.000005	2.28	.21	.35

The independent variable is intellectual stimulation

Table 10: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

Equation	Model Summary				Unstandardized Coefficient		Standardized Coefficient
	R Square	F	df	Sig.	Constant	b1	Beta
Linear	.18	35.00	1	0.000000	2.03	.26	.42

The independent variable is inspirational motivation

Table 11: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

Equation	Model Summary				Unstandardized Coefficient		Standardized Coefficient
	R Square	F	df	Sig.	Constant	b1	Beta

| Linear | .08 | 14.97 | 1 | 0.000158 | 2.47 | .15 | .29 |

The independent variable is individualized consideration

Table 12: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

| Equation | Model Summary | | | | Unstandardized Coefficient | | Standardized Coefficient |
	R Square	F	df	Sig.	Constant	b1	Beta
Linear	.12	21.87	1	0.00006	2.34	.18	.34

The independent variable is contingent reward

Table 13: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

| Equation | Model Summary | | | | Unstandardized Coefficient | | Standardized Coefficient |
	R Square	F	df	Sig.	Constant	b1	Beta
Linear	.12	21.57	1	0.000007	2.37	.18	.34

The independent variable is management by expectation (active)

Table 14: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

| Equation | Model Summary | | | | Unstandardized Coefficient | | Standardized Coefficient |
	R Square	F	df	Sig.	Constant	b1	Beta
Linear	.00	.74	1	0.391374	2.99	.03	.07

The independent variable is management by expectation (passive)

Table 15: Model Summary and Parameter Estimates

Dependent Variable: job satisfaction

| Equation | Model Summary | | | | Unstandardized Coefficient | | Standardized Coefficient |
	R Square	F	df	Sig.	Constant	b1	Beta
Linear	.01	.11	1	0.7376995	3.09	-.01	-.03

The independent variable is Laissez-Faire

Discussion

The outcome of this study has a number of theoretical applications. These applications will be analyzed and discussed in relations to adding upon the theories of leadership and development in an educational setting.

This study has been the first of its kind in a Thai vocational setting. To utilize the Multifactor Leadership Questionnaire (MLQ) and the Job Satisfaction Survey (JSS) to assess leadership perception has yet to be done. By doing this a new angle is given into the leadership theories. It is typical for a study to have the division heads' assess their own leadership styles but that can have its drawbacks in the form

of bias. By testing these theories across a new platform, the concept of transformational and transactional leadership can be further developed.

This work also contributes to the every changing landscape of the education system and of the times we live in. Numerous studies have shown that a passive approach is detrimental and this body of work helps add to that. Passive leadership styles such as management by exception (passive) and laissez-faire are becoming noticeably clear that they have a minimal or nonexistent role in the work place. As more and more research is done, the faster these outdated systems of leadership will be abolished.

Furthermore, the data will give administrators and division heads at Siam Commercial College an empirical look at what needs to be done to create a more satisfying work place. By looking at the statistics, SCTECH needs to make numerous changes to its overall leadership style if any progression in terms of satisfaction is to be achieved.

It is shown from past literature that and from general knowledge that good educational leaders lead to good educational outcomes. It is suggested that about one quarter of total school effects on student outcomes can attributed to organizational leadership (Leithwood, 1996). It is also found that the most significant impacts to leadership come from teachers' influences through development and appraisal. This study has a number of implications to better the overall organizational development.

Found in this study, the highest correlation came across was a transformational style of leadership. This would suggest that leaders should continue and build on a supportive aspect of their behavior. With the information from this study, school leaders can improve on their current styles, polices, and practices. This can help build on future leadership frameworks for the organization and hopefully build towards a more satisfactory work place. Moreover, creations of new or improved systems of assessment and evaluation can further build towards improvement.

Suggested by the literature, Thailand is still in a developing and chaotic state in terms of economics, politics, and education. This can possibly be attributed to a misunderstanding or lack of knowledge in terms of proper leadership and the understanding of subordinates. By gathering more empirical data and having a clear picture of what works and does not, the data from this study, if used correctly, can improve the overall atmosphere of numerous organizations even outside of the educational structure.

Lastly, to achieve maximum output from the research it is recommended that division heads should:

- foster standards for themselves that others would like to follow. A key characteristic to have as a motivator is high standards and accountability with ones actions,
- focus less on a direct means of telling their subordinates what to do and focus more on an indirect means; this can be done by creating a persona that is admirable to others and in turn they will guide themselves to be more like the said leader,
- use more mentoring and coaching techniques as a developmental tool,

- create clear goals for both individuals and teams; when the goals are met allow for those individuals to present themselves in a social gathering where other peers are invited to the occasion,
- have more occasions that highlight the major contributes that each member of the faculty has done,
- create time for teachers to create. Allow them enough freedom for them to be able to stimulate their minds and put their thoughts into action,
- allow teachers to participate more in important decision-making processes,
- have a proper area where staff can feel free to open up and discuss the future betterment of the organization,
- be ample and generous with proper recognition of birthdays and other special events. Make the teachers feel they are not only a part of the organization but part of a family,
- praise any great ideas or innovations on stage as a special event to push others towards that direction,
- perform one on one performance feedback sessions that have a clear goal setting objective with a proper timeline,
- have anything done that benefits the organization be praised immediately and sincerely,
- push a culture shift where teachers can share knowledge and give constructive criticism without feeling ridiculed,
- make themselves seen during the processes of important work done by employees,
- support resources and facilities to develop leadership (Naknan, 2012),
- and help subordinates through the previously mentioned work process by giving approval and direction if necessary.

The results of this study give a number of opportunities for future research. It would be suggested that other schools within the Thai educational structure conduct a similar research to give them a more defined understanding in what proper leadership should be like. Because of the nature of the research, future studies can be done within any level of the educational system.

In addition it would be suggested that a qualitative approach be taken to see if the feelings of the subordinates and the leaders are in line with the data. Future studies could impose focus groups, interviews, or case studies with all staff. These methods would give added value to the study and more than likely, produce extra information.

In terms of the leadership theories, this research can give more of an outlook on the importance of each facet. In general terms, the literature suggests the focus being on one or the other, transformational or transactional leadership, but perhaps the focus can be more on the facets of both. Furthermore, "leaders can adjust their leadership style depending on a range of situational factors because there is not limited leadership style for a leader to use in a given situation" (Aung, 2014). If it is more detailed future researchers may be able to add or take away some facets to make the styles more valid and defined. The research shows that teachers at Siam Commercial College of Technology gain much more satisfaction through

approaches of leadership that focuses on, at the very least, partial acknowledgment whether that is through verbal praise or a physical gift. On the other hand, techniques of passive leadership should be avoided if possible within the organization because, as shown by the research, it has no effect on satisfaction and may even be detrimental.

Finally, job satisfaction is an issue that can and should be constantly developing. This study clearly shows that job satisfaction levels are only par throughout the board and needs to be addressed. The study shows that some of the factors of leadership can increase job satisfaction therefore a deeper awareness of the link between job satisfaction and leadership theories can help gain a better understanding for intrinsic and extrinsic satisfaction.

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A COMPARATIVE STUDY OF STUDENT ACADEMIC ACHIEVEMENT AND SATISFACTION IN GRADE 4 SCIENCE UNDER TRADITIONAL INSTRUCTION AND COOPERATIVE LEARNING INSTRUCTION METHODS AT SARASAS WITAED BANGBON SCHOOL, THAILAND

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Richard Lynch[2]

Abstract: The National Education Act of B.E. 2542 (1999) as well as the Basic Education Core Curriculum of 2008 emphasize the importance of both the acquisition of the English language in present Thai society, as well as the development of 21st century skills for all Thai children. Furthermore, the Thai Ministry of Education supports and encourages cooperative learning as a way to create appealing, motivating, and meaningful learning. Unfortunately, this vision is often not shared by schools in Thailand, which prefer a more traditional instructional method. This comparative study aimed at measuring academic achievement as well as student satisfaction under two instructional methods - traditional instruction and cooperative learning instruction. The research was conducted in science grade four at Sarasas Witaed Bangbon School, Bangkok, Thailand. Science as a school subject is ideal for the implementation of cooperative learning. Indeed, science literacy develops critical thinking, analysis, and cooperative skills. A total of 122 students took part in this study over a period of six weeks during the second semester of the school year 2015. The research included six objectives. Objectives one and two were to determine student academic achievement under traditional instruction and cooperative learning instruction methods. Objectives three and four were to determine student satisfaction under traditional instruction and cooperative learning instruction methods. Finally, objectives five and six were to compare the results between the instructional methods in order to determine if an instructional method was more efficient and/or appealing. The findings of this study suggested that academic achievement of the cooperative learning group did not improve significantly. Student satisfaction was higher for the cooperative learning group than the traditional instruction group. Recommendations for school administrators and future researchers are provided.

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Introduction

In recent years, globalization has undeniably expanded rapidly throughout the world and each nation is now trying to modify its education system accordingly (Robinson, 2008). Furthermore, with the Association of Southeast Asian Nations (ASEAN) integrated community being officially initiated as of the end of December 2015, English has become the official working language of the community (Deerajviset, 2014). The National Education Act of B.E. 2542 (1999) as well as the Basic Education Core Curriculum of 2008 stresse the importance of the acquisition of a foreign language in the present Thai society, as it allow learners to grasp an understanding of diversity of cultures in the world community (Office of the National Education Commission [ONEC], 1999; Thai Ministry of Education, 2008).

Unfortunately, Thailand has suffered from poor results in international English examinations during these past years. Indeed, the English Proficiency Index of 2014 ranked Thailand at the 48th place out of 63 internationally, and 11th place out of 14 Asian countries (Education First [EF], 2014).

In order to help Thai children learn a subject in a foreign language, it is important to create appealing, motivating, and student-centered teaching models such as cooperative learning. Undeniably, studies over the years have consistently demonstrated the efficiency of cooperative learning (Gillies & Boyle, 2009; Ransdell, 2003; Walters, 2000). This educational paradigm is supported and encouraged by the Thai Ministry of Education as an effective teaching method (Phungphol, 2005).

Research Objectives

Six research objectives were designated for this research.
1. To determine student academic achievement under traditional instruction method in grade 4 science.
2. To determine student academic achievement under cooperative learning instruction method in grade 4 science.
3. To determine the level of student satisfaction under traditional instruction method in grade 4 science.
4. To determine the level of student satisfaction under cooperative learning instruction method in grade 4 science.
5. To compare students' achievement between traditional instruction and cooperative learning instruction methods in grade 4 science.
6. To compare students' satisfaction between traditional instruction and cooperative learning instruction methods in grade 4 science.

Conceptual Framework

The conceptual framework displays the instructional methods used with the grade 4 students throughout this study. The two independent variables were traditional instruction method and cooperative learning instruction method. Student achievement and student satisfaction, which are the dependent variables, were measured independently for the two instructional methods at the end of the teaching period.

Review of Literature

The Situation in Thailand

Independent Variables   Dependent Variables
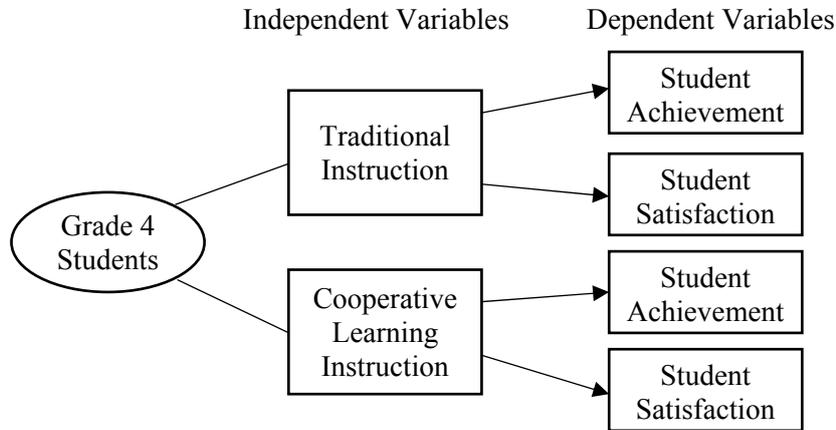
Figure 1: Conceptual Framework of The Study

As far as education is concerned, Thailand has undergone a quite peculiar situation. Although the Kingdom's budget allotment towards education is one of the highest in the region (Digital Content, 2014), Thailand has failed to demonstrate a sufficient level of achievement (Assavanonda, 2013; Maxwell, 2014; Parpart, 2013; Pusawiro, 2014). Indeed, for 2015, the government budget allocation for education represented 20.6% of the total budget, which corresponded to an amount of roughly five hundred and thirty-one billion baht (Bureau of the Budget, 2015). Unfortunately, even though Thailand spends largely on education, the results obtained by Thai students have not matched expectations for quite some time. The EF English Proficiency Index of 2014 ranked Thailand at the 48th place out of 63 internationally, and 11th place out of 14 Asian countries (EF, 2014). The low English proficiency issue is well known to education professionals as well as the government (Partridge & Eamoraphan, 2015). Yet, it seems that even though everybody demonstrates good intentions, effective implementation of the existing regulations fails to happen (Maxwell, 2014; Pusawiro, 2014).

The National Education Act of B.E. 2542 (1999)
The National Education Act of B.E. 2542 (NEA, 1999) is the primary legal document policing the Thai education system. The NEA stipulates in chapter 4, section 22, that education shall be based on the principle that all students are capable of learning and self-development, and the teaching-learning process shall aim to enable learners to develop at their own pace. Section 24 adds that educational institutions should provide student-centered methods of instruction by offering material and arranging activities in accordance with the learners' aptitudes and

interests, bearing in mind individual differences. Sections 26 and 30 emphasize the need for institutions to provide a variety of instructional methods and to develop an effective learning process (Office of the National Education Commission [ONEC], 1999).

The Basic Education Core Curriculum
The Basic Education Core Curriculum B.E. 2551 (2008) emphasizes the importance for Thai students to develop 21st century skills, such as creative and analytical skills, teamwork capability, in addition to technological knowledge. Furthermore, it stresses the necessity for Thai students to become proficient in English as it opens new understanding of the diversity of cultures in the global community. The goals of the Basic Education Core Curriculum B.E. 2551 (2008) are to develop knowledge and skills for communication, technological know-how, problem-solving, critical thinking, and life skills. The learning process is also defined in the curriculum. The learner-centered approach is strongly advocated (Thai Ministry of Education, 2008).

The No Fail Policy
Even though there is no clear description of a *no fail policy* in official documents, the practice is wide spread among Thai educational institutions (Cadias, 2013). The Basic Education Core Curriculum B.E. 2551 (2008) states that learners must be assessed on, and pass, all criteria of the corresponding learning outcomes, based on the standards prescribed in the Basic Education Core Curriculum. It is nonetheless at the discretion of the different schools to adjust test results in order to move students to a higher grade. Indeed, the official document states that educational institutions have the right to correct minor insufficiencies by offering remedial measures such as extra schooling or retest for the failed course (Thai Ministry of Education, 2008).

Science and the Basic Education Core Curriculum
The Basic Education Core Curriculum B.E. 2551 (2008) describes the science subject as crucial in daily life. The benefits include the development of critical, logical, analytical, and creative thinking. Furthermore, investigative skills, problem-solving skills, and decision making skills are all enhanced by the study of science at school. Therefore, the body of knowledge brought by science is undeniably indispensable to modern society (Thai Ministry of Education, 2008).

Sarasas Witaed Bangbon
Sarasas Witaed Bangbon School is a bilingual institution that aims at teaching the Thai curriculum in both Thai and English languages. The school is part of the Sarasas School Chain. The Sarasas group started back in Bangkok in 1964. Since then, the chain has opened 37 institutions nationwide, including 24 bilingual schools. Sarasas Witaed Bangbon opened in 2000, and was the fourteenth school of the Sarasas group as well as its fourth bilingual school. The bilingual program that Sarasas Witaed Bangbon School offers is known as the English Program (EP) at Sarasas School (Sarasas Ektra School, 2014). The English Program follows the

design of the immersion model, meaning that students are placed in an English-speaking class with an English-speaking teacher for the duration of the given lesson. Students are expected to acquire the content of the material taught in English even though they are learning the same topic in their native language at a different time of the week (Pacific Policy Research Center, 2010).

Science in the World
The world is deeply shaped by science and technology. Contemporary challenges like protecting the environment, decreasing poverty, and improving human well-being all necessitate an increasing demand for accomplished scientists and mindful citizens alike (UNESCO, 2010). Science involves an array of instruments, technological devices and products which facilitate our lives and works. The benefits from scientific knowledge combined with other disciplines enable us to develop thinking skills in various respects (Thai Ministry of Education, 2008). Indeed, science literacy develops analysis, discussion, and critical thinking skills among others (UNESCO, 2010).

Science in the Classroom
Science education emphasizes actively involving students in order for them to assimilate, practice, and master the use of present scientific knowledge and skills (Stahl, 1996). Another aim of science education is to improve students' skills to sort sense from nonsense, and develop their critical thinking abilities (Johnson, Johnson, & Smith, 1997). School science generally involves applied work of some sort. Consequently, for both pedagogical and class management reasons, science is an ideal subject for the cooperative learning support (UNESCO, 2010). Indeed, science is moved forward by cooperation. Cooperative learning challenges pupils and increases their motivation by providing positive reinforcement (Lyman & Foyle, 1988).

Traditional Instruction
The traditional instruction model, also known as the direct instruction model, is highly teacher oriented. Indeed, the method focuses on lectures, simple oral recitations, rote learning, and memorization; thus leaving no or little place for what the students think, like, or feel (Beck, 2009). Traditional instruction stresses knowledge as the content to be transmitted, the instruction as the demonstration of it, and the learning as the assimilation (Thamraksa, 2011). Under traditional teaching methods, students are seen as identical units of raw material ready to be shaped and standardized (Phungphol, 2005). The obvious downfall of the process is that the teacher alone dominates the instruction (Phungphol, 2005; Thamraksa, 2011). In the traditional teaching method models students become passive recipients of the learning (Thamraksa, 2011). Furthermore, the constantly increasing amount of material to memorize becomes quickly overwhelming. Students lose interest as the subject appears stressful, crushing, boring, and no longer enjoyable (Phungphol, 2005).

However, the ability for the method to survive is evidence of its strength (Kasambira, 1993). Unfortunately, for this method to be really efficient, students

must demonstrate a high level of individual interest and motivation towards academic activities (Andersen, 2011).

Student-Centered Approach

Student-centered activities stimulate the development of problem solving and critical thinking in students by placing students at the core of the learning process (Brush & Saye, 2002). In so doing, pupils' opinions, experiences, needs, and objectives are included in the learning environment (Thamraksa, 2010). During the learning process, the students construct their own meaningful and coherent knowledge, based on available data. Later, this new knowledge is linked to previously known information in a meaningful way, which facilitates critical and creative learning (Parsons & Beauchamp, 2012). In a student-centered class, the knowledge is constructed through authentic experiences set in a tangible context (Thamraksa, 2010).

The role of the teacher becomes that of a facilitator. The teacher is there to assist the pupils through the learning process (Parsons & Beauchamp, 2012). Since personal motivation plays an important role in learning, the instructor should foster motivation by encouraging positive feelings and emotional security, and eliminate negative emotions like anxiety and feelings of incompetence (Phungphol, 2005).

Differentiated Instruction

Differentiated instruction theories assert that teachers must adjust their teaching to the students' various needs and levels of understanding to maximize their learning (The Iris Center, 2015; Tomlinson, 1999). In a differentiated classroom, teachers understand that all learners differ in important ways and use it as an educational strategy. Therefore, they must develop and provide instruction through diverse learning approaches in order to appeal to the numerous interests displayed by the pupils (Tomlinson, 1999). The degree of complexity brought by the diverse learning activities must be adapted to the students' various levels of understanding. In differentiated instruction, teachers must ensure that a student competes against her or himself rather than against fellow students. The aim is for each student to achieve more than they thought they could do (Tomlinson, 1999).

Constructivism

Constructivist theories assert that learners must uncover and personally transform complex information, confront them against old assumptions, and revise obsolete knowledge when necessary (Hein, 1991; Swan, 2005). As each learner constructs their personal knowledge, the teaching methods should focus on the reality that knowledge acquisition depends to a great extent on the experiences undergone by the learner (Hein, 1991). Constructivism also insists on the importance of the culture. Indeed, students' views on diverse concepts are also built dependently to the cultural environment (Cobern, 1993). Students' ideas are founded according to their cultural surroundings, and their analysis is an interpretive deduction (Geertz, 1973).

Vygotsky (1978) developed the concept of the zone of proximal development, where students add to past experiences so as to progress along their own learning

path. The definition of the *Zone of Proximal Development* offered by Vygotsky (1978) is the difference between the actual level of development acquired by independent problem solving and the potential development level determined by the ability to solve problems under adult or more capable peers' guidance. Therefore, the interaction with peers is an effective way to develop skills and strategies. The use of cooperative learning is then advocated to support less competent students through the zone of proximal development (McLeod, 2010).

Cooperative learning
Cooperative learning is an instructional method using small groups of students working together to achieve a shared goal (Hatipoglu, 2013; Johnson, Johnson, & Smith, 1997). In a cooperative class, students are given responsibility to learn the assigned material, and make sure other team members learn the subject also (Johnson & Johnson, 1997). Cooperative learning tries to capture the essence of peer group in order to support the team in moving forward (Slavin, 2012). Structured activities improve children's cooperation by learning to share, take turns, and care for peers. Cooperative learning activities improve children's relationship with others both in the classroom as well as in the playground (Hatipoglu, 2013; Lyman & Foyle, 1988). Furthermore, the transfer of responsibility from the teacher to the student encourages an exchange of ideas and the construction of new knowledge based on previous experiences (Perkins, 1999).

In order to achieve tangible results in cooperative learning, it is important to include the essential component of cooperation in the lesson structure (Johnson & Johnson, 1994). The five indispensable components for a successful cooperative learning class are positive interdependence, individual accountability, face to face interaction, interpersonal and small group skills, and group processing (Johnson & Johnson 1994; Johnson, Johnson, & Smith 1991; Kagan, 2000; Putnam, 1997; Slavin, 2012; Stahl, 1996).

The Cooperative Team
Grouping students is an important part of cooperative learning. Individual teams should be assigned by the instructor so as to ensure heterogeneous groups (Johnson, Johnson, & Smith, 1991; Putnam, 1997; Slavin, 2012; Stahl, 1996). However, the teacher should not allow students to create their own teams since this too often leads to segregation and is counterproductive. The size of a group can vary according to a number of factors such as the task requirement, the complexity of the activity, the time available, and the cooperative skills displayed by the students (Putnam, 1997). However, studies suggest that students learn better in small groups of three to four members. Furthermore, pupils generally perform better in mixed-ability groups and pairs (Gillies & Boyle, 2009).

Cooperative Learning Versus Collaborative learning
Cooperative learning is a particular sort of collaborative learning. The aims and objectives of cooperative learning stress proficiency of facts, cognitive development, as well as personal and social skills, while collaborative learning focuses more on knowledge construction and development of autonomy (Ragupathi,

2002). Cooperative learning activities are generally more structured and individual accountability plays a greater role (Ragupathi, 2002). The tasks given are usually straightforward, precise, and the answers expected restricted. In contrast, collaborative learning empowers students to a greater degree. The complexity of activities provided is increased and the outcomes more open-ended. Thus collaborative learning is only adapted to a higher level of learning (National Institute for Science Education [NISE], 1997).

Research Methodology

This comparative study used a quantitative approach as it used a pre-test and post-test designed to compare student academic achievement under the two different methods of instruction. Furthermore, the research tried to underline if students displayed a difference in level of satisfaction between the two instruction methods. This research was a quasi-experimental study as it used two groups of students.

The research took place in grade four science at Sarasas Witaed Bangbon School, Bangkok, Thailand during a period of six weeks stretching from the 4th of January to the 12th of February 2016. A total of 12 periods of instructions each lasting 50 minutes were needed to complete the research. The subject taught covered Unit 6 of the science book named *Universe and Solar System* (Academic Foreign Staff, 2007).

In order to know if a difference of ability existed between the classes prior to the research, previous examination scores were analyzed using an ANOVA test. The scores did not display a significant difference between the five classes. In order to compare similar group sizes, the last class, named 4/5 was left out of the research and used for the try out, leaving 122 students in total involved in this research.

Two groups were designated for the purpose of this study. The control group involved 60 students taken from the classes named 4/1 and 4/3, and followed the traditional instruction method which was based on teacher centered techniques, memorization, and rote learning. The experimental group involved 62 students taken from the classes named 4/2 and 4/4, and followed the cooperative learning instruction method which was based on student-centered techniques, differentiated instruction, and group work.

To measure academic achievement a pre-test and post-test were given to both groups. The pre-test was given all the students prior to the instruction in order to determine their existing knowledge of the subject. The post-test was given after the instruction took place in order to determine students' knowledge gained after instruction. Student satisfaction was measured using a five-point Likert scale satisfaction survey composed of 18 items. The survey was given to students at the end of the research in order to determine their level of satisfaction toward the instructional methods. Results of both groups were then compared to come to a conclusion.

Findings

From the analysis of data, the findings were as follows:
1. Both traditional instruction method and cooperative learning instruction method increased student academic achievement. The control group showed

an increase of 54% between the pre-test and post-test. The experimental group displayed an increase of 68% between the pre-test and post-test.

2. Although the score increase between the pre-test and post-test was higher for the experimental group, there was no significant difference in student academic achievement between the control and experimental groups.

3. Both groups scored a high level of satisfaction towards the instructional method.

4. There was a significant difference in the level of satisfaction with the experimental group scoring a higher level of satisfaction than the control group.

Discussion and Conclusion

Academic Achievement
The context in which this study took place failed to integrate several of the five indispensable components for successful cooperative learning to take place. Indeed, the researcher, who was also the teacher, noted that positive interdependence and individual accountability were the most challenging concepts for students to grasp and implement. This situation has been described before in Thailand, where a strong hierarchical structure exists and collides directly with student centered teaching methods, which in return leads to difficulties in implementing student centered and cooperative learning methods (Phungphol, 2005; Nicholls & Apiwattanakorn, 2015).

To begin with, the researcher struggled in implementing positive interdependence within the students' teams of the experimental group. Over the years, students at Srarsas Witaed Bangbon have developed individualistic patterns, making it difficult for them to comprehend the benefit of sharing their knowledge and resources with others. This observation was made on many occasions, where the researcher could witness students with advanced academic skills being reluctant to share their findings with their most challenged teammates, and/or help them in their learning. An explanation as to the origin of this frustrating situation could be found in the culture of the school itself, which promotes teacher-centered and traditional instruction methods, typically discouraging students from interacting with each other during lessons. The school culture merely reflects the Thai culture in general. Indeed, Thailand is imbedded in a highly hierarchical culture were students are seen as lower than their teachers. In this context, students are not supposed to question or challenge their teachers or anyone seen as higher (Phungphol, 2005). This cultural element was previously known to the researcher who had attempted to promote positive interdependence through explanations, analogies and play. Unfortunately, due to the short span in which the study took place and despite all his efforts, the researcher failed to reverse the rooted tendency of individual exclusion.

The failure in properly implement individual accountability can be rationalized by the no fail policy followed by the school. Undeniably, by the time students have reached grade four, they already have assimilated the fact that whatever their input was, the school would not fail them, thus, making it very difficult to increase

extrinsic motivation. Another consequence of the no fail policy implemented by the school was the lack of students' knowledge of the language of instruction. For some students, the deficiency of English proficiency acted as a deterrent resulting in a reluctance to engage in classroom activities. As a consequence, intrinsic motivation was hardly increased in the same category of students.

It is the researcher's belief that all the elements discussed above are interconnected. Indeed, the lack of individual accountability leads to passivity. Passivity allows the knowledge gap to widen among students, which in turn raises distrust and disregard from students willing to put in the effort. All of which ensure a lack of positive interdependence. Yet again, it is the researcher's belief that these elements are directly linked to Thai culture in general.

Students' passivity as well as distrust were often discussed during group processing, where eager students would often complain about the passivity of their peers. In most cases, the approximate top 10% of students were complaining about the bottom 10%, often saying that their friends did not want to partake in any sort of activity, regardless of the support given to them by their peers.

The time frame in which the study took place as well as the amount of material to be learned played a significant role as well. The time span of six weeks in which the study was conducted was relatively short, making it difficult to properly prepare students for the challenges of working cooperatively.

Student Satisfaction
Although students in both groups scored a high level of satisfaction, the student satisfaction analysis pointed out that the satisfaction level of students who underwent cooperative learning instruction method was significantly higher than the control group.

Most of the students in the experimental group felt that the lessons were more enjoyable and welcoming, and that their peers were helping them to a greater extant. This impression was less obvious in the control group. Seventy-seven percent of students in the experimental group felt welcome in their science class compared to 65% in the control group. Furthermore, 72% of students in the experimental group stated that they enjoyed learning science compared to 60% in the control group. This observation is important as students tend to perform better if they enjoy their class more (Bandura, 1991; Phungphol, 2005). Sixty-nine percent of the students in the experimental group felt that their friends were helping them learn, compared to only 47% in the control group. The fact that pupils in the experimental group felt that their friends were helping them is a sign that cooperative learning could be implemented, and would indubitably work after a period of transition.

In conclusion, even though academic achievement did not show a significant difference between the control group and the experimental group, the fact that students in the experimental group displayed a higher level of satisfaction than their peers is a sufficient reason to implement cooperative learning in the science class at Sarasas Witaed Bangbon School. Given more time and an improved groundwork, it is the researcher's belief that academic achievement would increase significantly through cooperative learning instruction method.

Recommendations

The recommendations of the study are intended for the school administrators and the teachers at Sarasas Witaed Bangbon, as well as to future researchers interested in conducting similar studies.

Recommendation for School Administrators

The findings of this study can be used for grade four science at Sarasas Witaed Bangbon. Students tend to prefer cooperative learning instruction over traditional instruction. Furthermore, as no deficit in academic achievement could be found for the experimental group, the implementation of the method is highly recommended for the study of science. Indeed, students' feelings and perceptions towards their learning is an important factor in their personal development and willingness to participate in academic activities.

Recommendation for the Teachers

Teachers wishing to implement cooperative learning instruction method should be aware that the approach demands significant preparation before the instruction period begins in order to achieve positive interdependence. Traditionally, Thai students are not asked to share their work or help others. Furthermore, the no fail policy implemented by the Ministry of Education allows students' passivity and English knowledge deficiency. Countering these factors demands upmost preparation, understanding of Thai culture, near-infinite patience, and perseverance.

Recommendation for Future Researchers

The important factors affecting this research where length of the study, students' passivity, English knowledge deficiency, lack of positive interdependence and lack of individual accountability. Future research should take these elements into consideration as measured study variables and emphasize the groundwork necessary to counter these difficulties.

These variables could be addressed in future research so as to correct the academic achievement results displayed in this study. Exploration in other fields than science could be implemented with the purpose of comparing results of a similar population in more than one subject.

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A COMPARATIVE STUDY OF PRIMARY THREE STUDENTS' ORAL INTERACTION ACHIEVEMENT LEARNING THROUGH COMMUNICATION GAMES AND ROLE PLAY AT BURAPA ENGLISH PROGRAMME SCHOOL OF THAILAND

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Abstract: This study focuses on primary 3 students' oral interaction achievement at Burapa English Programme School of Thailand (BEST). Forty students participated in this study. The study used a two experimental group design where the sample was divided in two groups. Group A students learning through communication games and role play as a teaching approach, while group B students learning through role play and communication game as another teaching approach. The purpose of this study is to investigate if there is a significant difference of learning English through two different approaches. First approach is learning English through communication games and role play and the second approach is learning English through role play and communication games. The quantitative data acquired from the experimental groups gave the conclusion that, there was a significant difference in the students' oral interaction achievement. The study concludes with recommendation for practice for teachers; they can implement different ways in teaching English as a foreign language for students to build up confidence in their English verbal skills. The study also gives recommendation for further research.

Keywords: Communication Games, Role Play, Students' Oral Interaction Achievement, Communicative Teaching Approach.

Introduction

Learning as a process involves training as well as education (Jensen, 2001). In this learning process, training and education goes hand-in-hand throughout the natural development (Garavan, Heraty, & Barnicle, 1999; Sloman, 2005). According to Garavan (1997), training can be allied with 'learning by doing' whereas education is 'learning by thinking'; development involves learning, thinking, doing and feeling. Plato and Aristotle may agree that facts and skills are integral part of the education process whereby habits and reason are equally significant in cultivating development. According to Aristotle, he stated that "For the things we have to learn before we can do them, we learn by doing them, we become just by doing just acts, temperate by doing temperate ones, brave by doing brave ones." (Aristotle, 1999, p.21). Though, on the other hand, Socrates believed in the pursuit of answers through questions. He emphasized on his listeners to generate their own ideas through asking questions.

One of the first learning steps that a child will undertake is learning language. Language allows the child to communicate, build relations and enable the child to understand the world around them. Linguistics skills are picked up from interaction and the more interaction, the more words and communication techniques are available for the child to learn and understand. Huttenlocher (1998) noted that not only through communications that children are able to pick up linguistics skills but interaction with adults shall also add more advanced vocabulary and skills. At this stage, language learning is more about communicating rather than how to correctly pronounce or utter words.

The Educator must also give emphasis on learning style and strategy in order to help with the children's development in language learning. Learning styles such as auditory or visual, global or analytic varies from child to child and the educator may implement varying teaching style to bring about greater development in the child's language development. English is one of the main language skill required for communication in today's world; therefore, it is important for students to learn the language and enjoy it. Students today are growing up in a society where English is used often. This study concentrates on social and communicative learning strategy and its effectiveness for children in primary three in studying English as a foreign language. Social and communicative strategies help the learner work with others and understand the target culture as well as the language. Moving away from direct instruction and memorization, other teaching methodologies such as communication games and role play have been introduced and are now being used in the classroom. Therefore, this researcher feels that with the help of using communicative games and role play, the social learning strategy can enable the students to develop English as a foreign language and allow them to communicate in real-life situations without fear. This would allow them to freely express their experiences and ideas.

Objectives
This study sought to address five research objectives as follows.
1. To identify students' oral interaction achievement of group A students.
   a. To identify students' oral interaction achievement learning through communication games of group A students.
   b. To identify students' oral interaction achievement learning through role play of group A students.
2. To identify students' oral interaction achievement of group B students.
   a. To identify students' oral interaction achievement learning through role play of group B students.
   b. To identify students' oral interaction achievement learning through communication games of group B students.
3. To compare students' oral interaction achievement learning through communication games between group A and group B.
4. To compare students' oral interaction achievement learning through Role play between group A and group B.
5. To compare students' oral interaction achievement between group A and group B.

Literature Review
Five main theories with previous studies conducted were of support to this research: Experiential Learning Theory, Constructivist Theory, Theory of Language Learning, Play Theories and Importance of Play and Communicative Teaching Approach.

Experiential Learning Theory

Experiential Learning Theory by Rogers referred to an approach of learning, where a person interacts with its surroundings, including the people, animal and situation involved. It is learning by doing and may take place during a short period of time, such as during a regular scheduled class. It promoted personal study of feelings and behaviors in an educational format. It addresses the needs and wants of the learner. The highest levels of significant learning included personal involvement at both the affective and cognitive levels, learning is self-initiated and pervasive that they could change attitudes, behavior, and in some cases, even the personality of the learner. Roger's principles of experiential learning are:

1. Significant learning takes place when the subject matter is relevant to the personal interest of the student.
2. Learning which is threatening to the self is more easily assimilated when external threats are at a minimum.
3. Learning proceeds faster when the threat to the self is low.

Self-initiated learning is long-lasting and insidious (McNeil, 1990).

Constructivist Theory

Constructivist Theory by Bruner, influenced by Piaget's research on child development, Bruner proposed a cognitive development theory that emphasizes the students' active role in the learning process (Bruner, 1978). In other words, Bruner initiated curriculum change based on the notion that learning is an active, social process in which students' construct new ideas or concepts based on their current knowledge. Bruner identifies four significant aspects of effective teaching and learning: (1) attitude towards learning, (2) Knowledge presented in a way that accommodates the students' learning ability, (3) Material presented in effective sequences and (4) Carefully considered and paced rewards and punishments. Bruner held that knowledge instruction should progress from simple concepts to formulating new propositions and the manipulation of information (Bruner, 1960).

Theory of Language Learning

Theory of Language Learning by Richards and Rodgers provided the different methods and approaches on how to teach language, there was a move away from methods that focus on writing and reading to methods that stronger concentrated on the skills like communication. One of the methods that Richards and Rodgers introduced was the Competency-Based Language Teaching (CBLT). In CBLT the focus is on the "outcomes or outputs of learning". The major basis of CBLT is the 'functional and interactional perspective on the nature of language which means that language learning always needs to be connected to the social context it is used in'(Richards & Rodgers, 2001, p. 143). Therefore, language is seen as a medium of interaction and communication between people who want to achieve specific goals and purposes. This especially applies to situations in which the learner has to fulfill a particular role with language skills which can be predicted or determined for the relevant context. In connection to this Competency-Based Language Teaching shares the behaviorist view of learning that "certain life encounters call for certain kinds of language" (Richards & Rodgers, 2001, p.143). Another key aspect of both language and learning theory is the so called "mosaic approach to language

learning" (Richards & Rodgers, 2001, p.143), which assumes that language can be divided into appropriate parts and subparts. Communicative competence is then constructed from these subparts put together in the correct order. All these aspects together showed that CBLT is similar to Communicative Language Teaching (Richards & Rodgers, 2001, p.143).

Communicative Teaching Approach
According to Shine and Phil (2011), Wilkins proposed the communicative teaching approach which stated that for children to acquire a foreign language, they need to get opportunities to use the language in a meaningful and appropriate way by engaging in communication task, role-plays, debates, small group discussion, and guided dialogues. The communicative approach emphasizes the ability to communicate the message in terms of its meaning, instead of concentrating exclusively on grammatical perfection or phonetics. Therefore, the understanding of the foreign language is evaluated in terms of how much the learners have developed their communicative abilities and competencies. In essence, it considers using the language to be just as important as actually learning the language. The Communicative Teaching method has various characteristics that distinguish it from previous methods:

- Understanding occurs through active student interaction in the foreign language.
- Teaching occurs by using authentic English texts.
- Students not only learn the foreign language but they also learn strategies for understanding.
- Importance is given to learners' personal experiences and situations, which are considered as an invaluable contribution to the content of the lessons.
- Using the new language in unrehearsed contexts creates learning opportunities outside the classroom (Shine & Phil, 2011).

Teaching elementary subjects, reminds that the purpose of language is to enable students to accomplish task and communicate ideas in a social context. Inspired by Wilkins, Hymes, argued that in The Communicative Teaching Approach, language should also consist of communicative competence where there is proper usage of grammar and it should be used appropriately whenever possible (Kearsley, 2015). While Halliday briefed that language functions include an interactional function wherein it was suggested that language should be used to create interactions with others and that language means expressing personal feelings and meanings. Halliday went further by explaining that the imaginative function of language is to use language to create a world of imagination where learners learn to conceptualize things and events around them (Halliday, 1993).

Swan states that in the Communicative Teaching Approach, there is a need to move away from learning through grammar rules and structures in a set of formal systems which involve more teacher-talk but to have a practice which comes in various teaching and learning strategies such as role-playing, information-gap activities, simulations, games and others (Swan, 1985). The researcher believed Swan has made a good point here because children get bored with rules and

structures. They tend to do something that they could use more of their motor skills were they learn new things through discovery, using their imagination and creativity.

These theories played a very important part in this study as it helped deepen the understanding of teaching methods which in turn helped in answering some of the research questions of this study. Previous studies conducted related to communicative teaching and collaborative learning was also analyzed to further apprehend these theories.

Conceptual Framework

The purpose of this research was to investigate whether using communication games and role play on a group of students had better outcomes than using role play and communication games on another group of students. This study was conducted on two Primary 3 classes of the English subject over the academic year of 2015 – 2016. The design of this study was two experimental groups of students who learn English through two different approaches, which were as follows:

Group A: A group of students who study by learning through communication games for one month and followed with role play for another month during the experimental period.

Group B: A group of students who study by learning through role play for one month and followed with communication game for another month during the experimental period.

The researcher was eager to understand how the two approaches; communication games and role play would affect students' oral interaction skills. The sequence of the approach was a random decision of which approach would be done first. Both of the groups studied the exact same content during the eight weeks of instruction, and the achievement of students oral interaction were compared by running a t-test for significant differences. The conceptual framework for this study is shown below in Figure 1.

(See Figure 1 on the next page)

Procedures

Participants

```
                        Teaching Approach
┌──────────────┐   ┌──────────────┐   ┌──────────┐   ┌──────────────┐
│ Experimental │   │ Communication│   │ Role Play│   │  Students'   │
│   Group A    │   │    Game      │   │          │   │    oral      │
└──────────────┘   └──────────────┘   └──────────┘   │ interaction  │
                                                      └──────────────┘
┌──────────────┐   ┌──────────┐   ┌──────────────┐   ┌──────────────┐
│ Experimental │   │ Role Play│   │ Communication│   │  Students'   │
│   Group B    │   │          │   │    Game      │   │    oral      │
└──────────────┘   └──────────┘   └──────────────┘   │ interaction  │
                                                      └──────────────┘
```
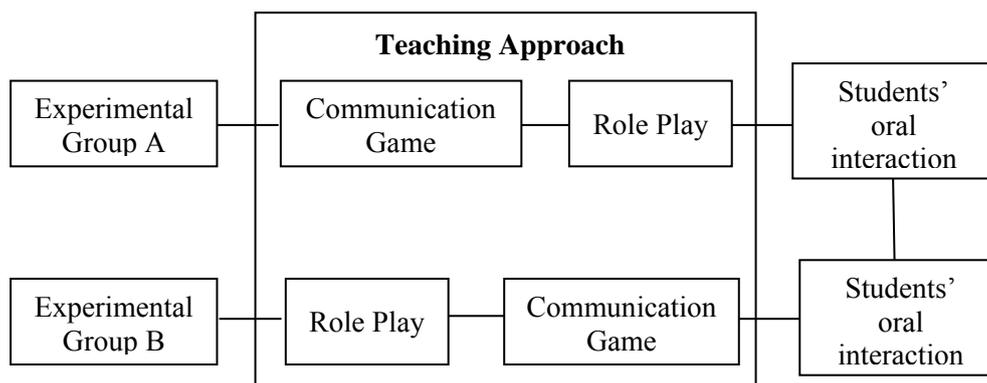
Figure 1: Conceptual Framework of The Study

The population of this study was the primary 3 students who are in BEST in Pattaya city, Chonburi province, Thailand. The sample of this research was two of the three primary 3 classes of BEST; which consists of 20 students in each class. The selection of the two classes was done by analyzing the final scores of the primary 3 students for their previous school year.

Instrumentation
This was a quantitative research study, which utilized both Descriptive Statistics and
Independent Samples t-test. The instrument used for this research was modified by the instructor to fit the needs of the research. The instrument was an assessment report which is used by BEST teachers in every subject. This instrument is also used as a progress card which is sent back home to the parents as a record of the child's improvement over the year. For validity of the scoring, the researcher assessed the students individually, however during the assessment there was another language teacher present to examine the scoring procedure. It consisted of four sections: students' understanding and respond to routine activities, level of participation, students' understanding of the topics taught and students' core communication skills in learning English through communication games and role play. The questions under the four sections of the research instrument were used to record progress of the students. These questions are formulated according to what the students know according to the language targets based on the syllabus. In measuring the students' oral interaction, the holistic scale was used. For more accurate findings, students' oral participation was measured using a scale, where 3 is for those who participated and understands and responds most of the time, 2 for those who participated but did not respond, 1 for those who participated but didn't understand and 0 for those who did not participate and don't understand at all. It was explained to students that the purpose of these activities conducted in class was to help develop more effective ways to teach a foreign language to EFL students.

The length of the experiment was eight weeks, during which the instructor taught both groups A and B simultaneously. Each week, both groups of students have four English lessons of 50 minutes each. The material taught during the instruction was the same for both groups A and group B. Both groups were evaluated similarly, using the same research instrument. The only difference was the order of the approach. The students in group A learned through communication games approach for four weeks and follow with role play for another four weeks. Whereas the students in group B learned through role play approach for four weeks and follow with communication games for another four weeks, during the experimental period. At the end of the experimental process both groups were assessed on their verbal skills on the activities that took place. The assessment was conducted during the experimental period and after the experimental period. The first assessment was conducted after four weeks of the experimental period. The second assessment was conducted after the whole experimental period i.e. after eight weeks. The same research instrument was used to assess the student at both times. The researcher collected the data herself. The experimental period was carried out from June 22nd 2015 to August 24th 2015. The details of the dates of the assessment are shown in table 1.

Table 1: Date of the Experimental Period and Assessments

Group	Teaching Approach	Duration	Assessment
Group A	Communication Game	June 22nd to July 17th 2015	July 20th 2015
	Role Play	July 27th to August 21st 2015	August 24th 2015
Group B	Role Play	June 22nd to July 17th 2015	July 20th 2015
	Communication Game	July 27th to August 21st 2015	August 24th 2015

Upon tabulating the results of the scores collected, the researcher computed and compared the oral interaction achievement scores of the two groups. The researcher used descriptive statistics to identify students' oral interaction achievements and used Independent Samples t-test because the researcher wanted to compare the difference in students' oral interaction achievement between two independent groups at the level of significance of 0.05.

Findings

The main findings of this study were:

- The first research objective was to identify the students' oral interaction achievement of group A students. Table 2 shows the results of Mean and Standard Deviation of Scores for group A Students' Oral Interaction Achievement.

Table 2: Mean and Standard Deviation of Scores for Students Oral Interaction Achievement (Group A)

Group	Teaching Approach	Mean	S.D.
A	Communication Games	88.80	10.59
	Role Play	93.60	6.04

Total		91.20	7.85

- The second research objective was to identify the students' oral interaction achievement of group B students. Table 3 shows the results of Mean and Standard Deviation of Scores for group A Students' Oral Interaction Achievement.

Table 3: Mean and Standard Deviation of Scores for Students Oral Interaction Achievement (Group B)

Group	Teaching Approach	Mean	S.D.
B	Role Play	67.40	4.00
	Communication Games	69.90	6.94
	Total	68.65	3.39

- The third research objective was to compare students' oral interaction achievement learning through communication games between group A and group B. Table 4 shows the results of an Independent Samples t-test comparing the students' Oral Interaction Achievement between both groups.

Table 4: Independent Samples t-test of Group A and Group B Students' Oral Interaction Achievement Learning through Communication Games

Group	Mean	S.D.	t value	Sig (2-tailed)
A	88.80	10.59	6.67	0.00
B	69.90	6.94		

- The forth research objective was to compare students' oral interaction achievement learning through role play between group A and group B. Table 5 shows the results of an Independent Samples t-test comparing the students' Oral Interaction Achievement between both groups.

Table 5: Independent Samples t-test of Group A and Group B Students' Oral Interaction Achievement Learning through Role Play

Group	Mean	S.D.	t value	Sig (2-tailed)
A	93.60	6.04	16.17	0.00
B	67.40	4.00		

- The fifth research question was to compare students' oral interaction achievement between group A and group B. Table 6 shows the results of an Independent Samples t-test comparing the students' Oral Interaction Achievement between both groups.

Table 6: Independent Samples t-test of Group A and Group B Students' Oral Interaction Achievement

Group	Mean	S.D.	t value	Sig (2-tailed)

A	91.20	7.85	11.79	0.00
B	68.65	3.39		

Discussion

An opening interesting finding is that students from both groups oral interaction had improved as observed by the researcher; which indicates that communicative teaching method was beneficial for students.

- As seen in table 2, the students' scores were calculated and the mean score for students who learned through communication games was 88.80 with a standard deviation of 10.59; the mean score for students who learned through role play were 93.60 with a standard deviation of 6.04. The mean score for Group A students was 91.20 with a standard deviation of 7.85. The findings showed that role play is an effective tool in promoting language development because students can converse in an informal setting without any convictions and restrictions as supported by Kellough and Roberts (2002), they mentioned that role play provide interaction with peers. It can therefore be accepted that role play indeed does have a positive effect on students' oral interaction since it's a teaching method where teachers are there to facilitate the activity (Norton, 1993).

- As seen in table 3, the students' scores were calculated and the mean score for students who learned through communication games was 69.90 with a standard deviation of 6.67; the mean score for students who learned through role play were 67.40 with a standard deviation of 4.00. The mean score for Group B students was 68.65 with a standard deviation of 3.39. The findings showed that games let players interact with each other. This statement conforms to the results as supported by Lewis and Bedson (1999). With communication games as instrument of activities where students learn to communicate with each other because they had to fill in missing information which encouraged the students to socialize and get into real conversation around a language context. Consequently, the results of this study conforms to the national survey done by The Adult Migrant Education Program (Nunan, 1988) which shows that 40% of teachers find language games effective with students and because they are communicative and they depict real life questions and situations.

- Following the results table 4 showed that there was a significant difference of students' oral interaction achievement between group A and group B when learning through communication games at the significance level of 0.05. The findings showed that, the principle of Communicative Teaching Approach will remain as true and correct for it presents a factual statement that using authentic materials, picture prompts and cue cards stimulate students' motivation and encourage interaction among them. It also suggests that a language learner needs to understand and express.

- Table 5 showed that there was a significant difference of students' oral interaction achievement between group A and group B students when learning through role play at the significance level of 0.05. The finding showed that, role play made students interact with each other as supported by the classroom research of Snell (1999), he noted that role play made students interact with each other and concluded that indeed, role play improves students' oral interaction because it gives students a chance to express. This maybe the reason why it is stated in Constructivist Theory that play develops social and communicative skills.

- Lastly, in table 6, it showed that there is a significant difference of students' oral interaction achievement between group A and group B students at the significance level of 0.05. The findings showed that students gained valuable experience in their social interaction. These methods of instruction should be encouraged as they are effective, and are not affected by Thai culture as supported by Bulut (2010). On the other hand, the finding also showed that Bruner (1986) was right when he implied that instruction should be designed to facilitate discovery or fill in gaps where students have to go beyond the information given to them. During the experimental period, the researcher noticed that students were challenged to find missing clues on activities given and actually approached each other asking and sharing information. The finding also suggests that communicative teaching approach can be implemented in teaching EFL students. This is in contradiction to studies conducted in Thailand that came to pessimistic conclusions stating that Thai students were passive, not questioning their teachers, and not prepared to work in groups, and eventually will make them not ready to study collaboratively (Deveney, 2005; Phuong-Mai et al., 2005; Zakaria & Iksan, 2007).

Conclusion

Students who studied through communication game and role play obtained a higher achievement score as compared to students who studied through role play and communication game. This shows that the first teaching approach was different from the second teaching approach. The researcher observed that the results were as expected and that students who learned through communication games before role play performed better than students who learning through role play before. The researcher had observed the students and noticed that students were able to understand the content that was taught to them better with the first approach which was learning through communication games and then followed with role play. This was because students were able to gain knowledge on the vocabularies and respond to it according to the game structure. It was difficult for students to grasp the topics and vocabularies when they were learning through role play before understanding the content through communication games.

Recommendations

Recommendation for practice

This study has provided BEST teachers with a clearer understanding of the use of communication games and role play in teaching English to EFL students is effective. This study gives teachers a better understanding of how effective are these methods when used at different times of instruction. In the traditional teaching style, various activities have not been reflected. Therefore, the researcher believes that it is important to investigate teaching methods on primary students. Also, in language learning, since both knowledge of the target language and skills for communication have been taught and learned, incorporating different types of activities which support specific knowledge and skill development is essential. The findings of this study can be used for students at the same grade level for other subjects like Thai language learning for foreign students. Teachers of other subjects should be vigilant if they want to implement communicative learning for students in Thailand as this study underlined that a lot of preparation is needed before the instruction takes place.

The findings of this study could also be used as feedback for the needed enrichment of curricular content and methods of language teaching for foreign language learners. The researcher recommends reading the research done by Nuntrakune and Park as they have prepared scaffolding techniques for teachers teaching Thai students in Thailand and integrated Thai culture values in collaborative learning.

Recommendation for Future Research
This study could be replicated with a larger sample size at other schools teaching English in Thailand or other countries as well on a different grade level. In order to gain more precise information on which method of teaching is more effective, then a longer time period for the research and a larger group of students should participate in the future research.

For future research the researcher recommends to separate the two teaching activities to be able to see the effectiveness of each type of activity on students' oral interaction. The researcher also recommends focusing on the effectiveness of other communication approaches like quiz bees, white board games, card games, team competition and puzzles. The researcher also recommends future researcher to change the sequence of the teaching approach that was carried out in this study, to see the effectiveness of the approach and whether there is a significant effect.

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A STUDY OF RESEARCH VALUES FOR PRIVATE UNIVERSITY FACULTY

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Abstract: Conducting research is considered another important obligation of both private and public university lecturers apart from teaching. Concerning conducting research, good researchers satisfactorily need to have research values. The objectives of this research were 1) to determine research values needed for private university faculty and 2) to identify research values for private universities across the research process. The samples comprised 15 research lecturers and professional researchers with more than five years of research experience. The interviews as the core research data collection of this study were conducted based on the research values synthesized from published documents and academic journals. The findings of this study revealed that research values for private university faculty include 13 core values categorized under three categories as follows: *Category 1 – Creativity Values* consisting of three sub-core values: 1) generating new research ideas, 2) daring to face research challenges, and 3) conducting research beneficial to society; *Category 2 – Professional Researcher Values* consisting of six sub-core values: 4) working systematically, 5) having good human relations, 6) having no prejudice, 7) having high responsibility, 8) thinking logically and 9) not violating human rights; and *Category 3 –Adherence to the Truth Values* comprising four sub-core values: 10) being competent in searching for information, 11) being truthful to the data observed 12) avoiding committing plagiarism and 13) presenting quality research. It was also found that Creativity Values were most frequently used in the phase of determining research problems. Professional Researcher Values were most frequently used in the phases of designing research methodology, creating research instruments, collecting the data, analyzing the data and discussing and concluding the results of the study. Adherence to the Truth Values were most frequently used in summary, discussion and research presentation phases.

Keywords: Research Values/Creativity, Professional, Adherence to The Truth, Private University Faculty.

Introduction

Article 34 of the National Education Act of B.E. 2542 (1999 A.D.) and Amendments (2nd Edition) of B.E. 2545 (2002 A.D.) requires university faculty to have the primary obligation to conduct research with the belief that research shall expand knowledge and promote the working capacity of faculties to obtain high quality and useful research, new inventions and creative work in response to national development strategies and wide-ranging social demands in order for generating benefits to the public (Ministry of Education, 2008). The Office for National Education Standards and Quality Assessment (Public Organization) (ONESQA, 2010) requires higher education institutions to build academic intensity, conduct high quality research and pieces of work as far as make oneself be accepted

to a particular academic field. Thus, university faculty in higher education need to conduct research abiding by institutions' research obligations and are further required to have their research published in national and international academic journals. The research and development produced shall be applicable by those who wish to make use of it. Research findings and creative works are therefore important factors for developing desired quality and boosting capability and efficiency of Thai citizens, in line with national development strategies while further developing the nation into a society of learning, knowledge and wisdom (National Research Council of Thailand, 2012).

The Office of the Higher Education Commission (OHEC) launched and supported research conduction and university development project in 2009, in line with the government's policy in order to raise higher education standard to be excellent. OHEC grouped higher education institutions based on their potentials and capacity and reinforced knowledge management and innovations by increasing research and development capacity (Office of the Higher Education Commission, 2011). The OHEC's university ranking, which was assessed during the third education quality assurance, includes 23 universities to be under Group 1 (Research Excellence Institutions). The list comprises 20 public universities and three private universities. With respect to such division, it is seen that the difference in numbers between research oriented public universities and private universities is strikingly high. Consequently, private universities were found to produce fewer internationally accepted pieces of researches than public universities. This also included the amount of new innovative and creative research findings, journals and creations, utilization of findings and the number of registered intellectual properties. ONESQA has expressed great concern about this issue (Office for National Education Standards and Quality Assessment, 2011). Furthermore, according to reports from the second education quality assurance by the Office for National Education Standards and Quality Assessment, ONESQA has advised private institutes of higher education to urgently solve the problem of lack of quality research by suggesting private institutes of higher education to carefully plan, allocate budgets, support research funding, adopt remuneration systems, reduce teaching workloads and integrate researches with missions in other areas in order to concretely promote faculty and education personnel development (Pornroongroj, 2015).

The development of university faculty in the research aspect is, therefore, an important task in elevating and developing educational quality. According to a review of various studies, the researcher found that in order for the learning process to be sustainable, values must first be created for learners. This concurs with the Thailand Research Fund (2012), which stated that researchers need to develop personal research values first. Therefore, if private university lecturers have research values in developing oneself, they will feel the need for personal development with research work. This will result in generating benefits for not only the researchers, but also universities in elevating research quality.

Literature Review

Value

Rokeach (1979) defined value as a belief which lasts long by nature. This belief is considered conduct or the aim to live one's life, which is deemed righteous by individuals or society and is worthy of living standard as well as a way of life that can influence human behavior. Buasri (1984) defined value as some of the conditions (or actions) in which we believe (or favor) that adhering to such action will help achieve social or personal aims. In other words, values are considered important for a person's behavioral expressions and the person's behaviors which have been performed because some changes to the society. Psychologists, sociologists and anthropologists believe that values are highly important to the lifestyles of people in society because values guide and provide ways for persons to behave and perform actions or choose any ideals (Salayachiwin, 1983)

A number of studies have examined values in various professions. For example, Shahriari et. al. (2013) studied the ethical values of professional nurses in Iran by studying nurses at the Nursing Midwifery Care Research Center, Isfahan University of Medical Sciences, and they found that nurses should have a total of ten values, namely, human dignity, privacy, justice, autonomy in decision-making, precision and accuracy in caring, commitment, interpersonal relationships, sympathy, honesty and individual and professional competency. The United States Army (2012) set the Seven Core Army Values consisting of loyalty, duty, respect, selfless service, honor, integrity and personal courage. Apparently, value is necessary for people in various professional settings and thus should be attentively adhered to for behavioral practice.

Research Values

Pratt (1999) defined research values as belief towards research that has been reflected through every phase of research conduction, starting from research policy, research planning and research management at all levels. Creating research values is quite time consuming and needs a careful planning. There were many associations, agencies and researchers have placed importance on research values, including the research values for researchers in general and those for university faculty who usually conduct research. One such example is The National Academies of Sciences Engineering Medicine (2001), which published a book on Issues for Science and Engineering Researchers in the Digital Age. It emphasizes that the traditional values of research i.e. working together, communicating openly or being patience, must be existent and passed on from experienced researchers to new generations of researchers. Another important concept raised by this institution is that interpersonal values must remain in the researchers themselves and such values will never be replaced by digital technology. Furthermore, based on the findings of Watt (2007), qualitative researchers most frequently require the value of reflexivity. The EECERA Working Group (2015) presented the EECERA Ethical Code for Early Childhood Researches Revised Version 1.2: May 2015 by using the words "Ethical Code". The aforementioned work spoke of researchers' democratic values. The Inter Academy Council (2012) presented research values made of general human values. However, when implementing them in the context of research, researchers were required to have seven research values, namely, honesty, fairness, objectivity,

reliability, skepticism, accountability and openness. O'Reilly, Johnson and Sanborn (2012) found that research values usually occur following the lifecycle stages for research. This means that researchers need to have the same and different research values throughout the research process together with each of its phases in order that they can utilize those research values in conducting quality research.

Considering domestic studies, Putwattana (2002) studied the strategic development of research culture of public university faculty of higher education by studying their research beliefs, attitudes and values of research conduction. However, no studies touching upon research values for private university faculty have been conducted so far.

Saihoo (1979) mentioned the ways to reinforce and promote research conduction and publication of the university lecturers suggesting them building intrinsic motivation; that is, encouraging teachers to be aware of and perceive the real meanings and necessity of conducting research. Another intrinsic motivation is to encourage university teachers to feel that there are some problems and issues that need to be answered and tackled by them; they need to desire to know the answer. All of which can be successfully done by conducting research studies.

Value Creation

When thoroughly studying the term "values" it is discovered that it is basically one form of belief which may be abided by an individual or might be taken by members in a particular society. Such values taken is seen to demonstrate and exhibit an obvious standpoint of the value holder towards something probably viewing it as good or bad, like or dislike, and agree or disagree. The values are normally further brought to use as an accepted norm for the purpose of behaving and living one's life (Kulrattanamaneeporn et. al, 2012)

Interestingly, Kohlberg's study (1976, cited in Crain, 1985) adds to the conceptual descriptions of values stating that differences if the level of values in which a person is holding can influence on and affect an ethically-based decision. Thus, understanding different types of value and enhancing and supporting taking different values seriously and correctly will help increase and boost potentiality and potency in managing human resource more effectively. This is because a human being naturally has personal values personally taken. They can noticeably influence and affect the decision to be made by corporate leaders and personnel in each of the different professional communities

To raise an example, International Federation of Accountants (2003) specifies that the must-have professional values for any accountant are intention to work morally, fairness, honesty, independence along with professional standard, courtesy in the profession, consciousness of responsibility for the society, an awareness of public benefits, and constant intention to learn. Therefore, in educating, shaping and horning valued professional accountants, there is a need for the professional accountants to be aware of and realize their professional values and act on their duties morally in order for the benefits to the society and their profession.

Moreover, Tanathuttakam (1984) studied the perception of basic values for military police students including police cadets, naval cadets and air force cadets, and the results showed that five basic values had been practiced and trained by these

four groups of cadets; they are: 1) self-reliance, diligence and having responsibility; 2) being self-sufficiency and economical; 3) having discipline and respect for laws 4) acting in religious morality 5) conducting patriotism

All in all, considering related research work, documents and review of the literature, it was found that imposing research values can only be executed by an imposer imposing them to different groups of people, or an imposer can be a person in a particular professional community imposing particular research values for people in the same community. In addition, values may be established basing on the lifestyles of people in a particular community that have been accumulated from generation to generation until the values have become an accepted behaviors and norms. Thus, this study employed the research values advised by the university faculty with research experience for the purpose of jointly imposing the research values for private university faculty whose teaching and learning contexts are different from public universities. Therefore, the researcher recognizes and realize the need for studying research values so that private universities particularly their administrative members launch and promote a policy emphasizing and imposing research values for private university lecturers. This will consequently improve and elevate the private university lecturers' research capacity.

Purpose of The Study

The purpose of this research is to determine research values needed for private university faculty and to identify research values for private universities across the research process.

Methodology

The methodological procedures of this exploratory research comprise sampling methods, research instruments, data collection and data analysis, all of which are explained below:

Participants

The samples used in the in-depth interviews comprised 15 government and private university faculty obtained by the judgmental sampling 'the Snowball Technique'. The criteria for selecting the participants of this research are the following: 1) being university lecturers; 2) being research lecturers whose pieces of research work have been accepted at both international and national levels.; 3) receiving national research fund and/or support at least once; 4) presenting their research studies at national and/or international academic conferences; 5) being able to link research experience with research values, and 6) being experienced in giving research consultation and advice.

Instrument

The instrument of this research was an in-depth interview with the experts in order to obtain appropriate research values for private university lecturers. The aforementioned instrument was composed of ten questions and the table which was obtained from reviewing the related work. The table comprises value names together with synthesized explanations.

Data Collection

Data collection of this research study can be divided into 3 phases, each of which is explained as follows;

Phase I: The researcher reviewed documents and related research studies to specify the definitions for the word "value" by means of comparing similarities and differences of the words similar to the term 'values' such as ethics, morality, morals and culture. Then, the researcher studied general professional values or groups of people, studied the research values of regular researchers in organizations or institutes, and studied research studies and different sources of data which discuss research values for university faculty. The table for an analysis was then established by means of synthesizing descriptions and meanings and of comparing different tables from the given sources which discuss general values and research values. To add reliability to the research process, the researcher reviewed the explanations for the characteristics or behaviors caused by each individual research value. In this step, the researcher presented the table which comprises explanations and descriptive characteristics, together with the interview questions, to three experts who were senior university lecturers with research experience to evaluate content validity of the instrument.

Phase II: After conducting an interview with the experts which lasted for two months, the researcher synthesized the interview and used the information and the headings for research values suggested by the experts to organize three-category research values and sub-groups of each of them. This was executed by adhering to the principles obtained from reviewing different sets of values from various data sources. These studies revealed that the imposers setting their values by using the principle of deciding what areas are related to the desired values such as personal characteristics, morals, customers, life or services, etc. Finally, the researcher came up with the research values for private university faculty which comprise 13 values altogether, and they are grouped under the following three main categories: Creativity Values, Professional Researcher Values and Adherence to the Truth Values.

Phase III:, the researcher further studied, analyzed and synthesized the procedures of research conduction and obtained the following eight main steps : 1) determining research problems; 2) searching for related studies; 3) designing research methodology; 4) constructing researcher instruments; 5) collecting data; 6) analyzing data; 7) discussing and concluding the research results ,and 8) presenting a research study. Then, the researcher tabulated the values obtained by categorizing them according to the 8 research steps aforesaid using black circles to display necessary core values and blank circles to present the core values recommended for researchers.

To validate all the established values for private universities faculty, the table containing such values was validated and evaluated by research experts who involve directly with research management and research courses. One expert was simultaneously both a private university lecturer teaching research courses and a private university researcher. Another two experts were, at the same time, research lecturers and executives of the research division who provide research funds and

research support for university teachers. The last expert was a researcher and an executive of researchers' association. All of the experts checked the accuracy and suitability of the research values in conjunction with each of the research process proposed.

Results

The research values which need to be attended by private university faculty as reminding tools for good research practice comprised 13 research values which belong to three main categories as follows:

Category 1 Creativity Values
Consisting of three core values:
1. "Generating new research ideas" refers to researcher's willingness to conduct new studies with open mind and being aware of external factors at all times, desiring to learn new knowledge and ability to independently select and approach research problem issues based on interest.
2. "Daring to face research's challenge" refers to researcher's motivation to challenge oneself. Researcher should have courage to experiment new things, ability to think outside the box and develop research into new innovations.
3. "Conducting research beneficial to society" refers to researcher's awareness of the importance of conducting research with benefits for the society in mind. The researcher should also strive to achieve unambiguous results and take public benefits into serious consideration.

Category 2 Professional Researcher Values
Consisting of six core values:
4. "Working systematically" refers to researcher's ability to systematically conduct research with emphasis on research achievements as planned.
5. "Having good human relations" refers to researcher's interpersonal skills. Strong human relation, love and compassion for colleagues, society and communities, willingness to sacrifice, kindness, generosity and an open to opinions and criticisms from others are all desired traits for researcher.
6. "Having no prejudice" refers to researcher's adherence to conducting research fairly and equally without favoring one side without reasons and within the code of ethics and moral philosophy.
7. "Having high responsibility" refers to researcher's conscientiousness to conduct research with full capacity and willingness to take responsibility when errors occur and make corrections accordingly.
8. "Thinking logically" refers to researcher's adherence to accuracy, being observant and solving problems by identifying the problems' causes and effects. Researchers should also exercise appropriate discretion in decision making process.
9. "Not violating human rights" refers to researcher's respect for human rights. Researchers should keep confidentiality of research participants at best and should consider professional ethics

Category 3 Adherence to the Truth Values
Consisting of four core values:

10. "Being competent in searching for information" refers to researcher's ability to acquire relevant data from domestic and foreign databases to facilitate research conduction.
11. "Being truthful to the data observed" refers to researcher's duty to conduct research based on factual findings without any bias or prejudice. Researcher should present the findings with honesty, in both positive and negative aspects of the work, so that data users are well advised when interpreting the data.
12. "Avoiding committing plagiarism" refers to researcher's honesty quality when conducting a research. Researcher must not claim the results of others as his or her own and not copy others' research as his or her own. Research should be conducted with transparency, accountability and adherence to ethics.
13. "Presenting quality research" refers to researcher's ability to present data obtained from research studies with high quality. Information should be limited in scopes. Great emphasis should be placed on clear and complete communication.

Based on the aforementioned 13 values, the researcher studied and synthesized the research procedures to determine the consistency of values in relation to quality research production, and it was found that all eight of the research procedures synthesized by the researcher—comprising 1) determining research problems; 2) searching for related studies; 3) designing research methodology; 4) constructing researcher instruments; 5) collecting the data; 6) analyzing the data; 7) discussing and concluding the results, and 8) presenting a research study, differently concord with different research values as previously presented. Table 1 below represents the research values for private university faculty; they were categorized into their corresponding research phases by using black circles to represent necessary values and blank circles to represent core values recommended for private university faculty as shown in Table.

Table 1: Values Categorized by Research Procedures

Research Process	Values		
	Creativity	Professional Researcher	Adherence to the Truth

	Generating New Research Ideas	Daring to Face Research's Challenges	Conducting Research Beneficial to the Society	Work systematically	Having Good Human Relations	Having No Prejudice	Having High Responsibility	Thinking Logically	Not Violating Human Rights	Being Competent in Searching for Information	Being Truthful to the Data Observed	Avoiding Committing Plagiarism	Presenting Quality Research
1. Determining research problems	●	●	●	●			○	○	○	○	○	○	○
2. Searching for related studies										●	●	●	●
3. Designing research methodology	○	○	●	●	●	●	●	●			○		
4. Constructing research instruments				●	●	●	●	●	●	○			
5. Collecting data				●	●	●	●	●	●		○	○	○
6. Analyzing data				●	●	●	●	●	●		○	○	○
7. Discussing and concluding the results	○	○	●	●	●	●	●	●	●	●	●	●	●
8. Presenting a research study				○		○		○	○	●	●	●	●

According to Table 1, it is seen that there is a need for encouraging the university faculty to possess all three creativity values together with the value of working systematically in the area of Professional Research. The process of searching for data and presenting the research findings requires an adherence to all of the sub-units of Adherence to Truth Values; that is, being competent in searching for information, being truthful to the data observed, avoiding committing plagiarism, and presenting quality research. With regards to the steps of designing research methodology, creating research instruments, collecting and analyzing the data, and discussing and concluding the results of the study, there is a need to promote the value of Professional Researcher.

In addition to the compulsory research values, university faculty should be encouraged to possess other recommended values. The step of determining research problems appeared to be reinforced more seven additional values followed by the step of presenting research which requires four more additional values.

Discussion and Conclusion

According to the findings of this research study with respect to research values for private university faculty obtained from in-depth interviews with the experts in the areas being studied, it is found that the research values for private university

lecturers comprised 13 values categorized into the following three main heading categories:1) Creativity Values consisting of three sub-core values: 1.1) generating new research ideas, 1.2) daring to face research's challenges, 1.3) conducting research beneficial to the society; 2) Professional Researcher Values consisting of six sub-core values: 2.1) working systematically, 2.2) having good human relations, 2.3) having no prejudice, 2.4) having high responsibility, 2.5) thinking logically, 2.6) not violating human rights violations and 3) Adherence to the Truth Values consisting off four sub-core values: 3.1) being competent in searching for information, 3.2) being truthful to the data observed, 3.3) avoiding committing plagiarism, 3.4) presenting quality research. All three categories of research values are considered main important values and value groupings in this study aimed at creating consistent values. The aforementioned findings were similar to the concept of Sota, et. al. (2002) who stated that values can be created in a system to promote changes in human behaviors and attitudes. In addition, Rokeach's concept (1973) further supported that values can be categorized into the following two types: 1) Terminal Values comprising 18 values and 2) Instrumental Values containing 60 – 70 Values. Komin and Samakkan (1979) categorized values which led to two groups of desirable outcomes i.e. Moral Values and Competency Values. Rokeach (1973), Komin and Samakkan (1979) presented guidelines for creating personal values based on the assertion that a person's behaviors are not determined by any single value. The behavior of a person will be established when being forced or acted on by a group of values. A value is learned and coordinated with other values within the model of that value system. This was similar to the study of Schwartz (2005) studying work values and categorizing the work values into the following four groups: 1) adaptation to change, 2) conservation, 3) self-development, and 4) understanding others. All of the four values showed a person's behaviors apparent in and characterize each value group.

Creativity Values comprise the following three core values: 1) generating new research ideas, 2) daring to face research's challenges and 3) conducting research beneficial to the society, all of which were found to be essential core values in determining researchers' research problems. This concurred with the researchers' essential characteristics of Sripairoj (2013), which confirmed that considering the essential characteristics of researchers in conducting any research the researcher himself or herself is the most important factor because success in research is primarily dependent on the researcher. Therefore, researchers are required to have good basic knowledge in the field of study, curiosity, creative thinking and endurance when confronting with obstacles and failure and also have the ability to make decisions. Similarly, the National Committee on Secondary Education of the United States (2003) specified that good researchers should have curiosity, be persons who are happy and enjoy creating new work with motivation. Besides, they always hope or desire to achieve great success with the belief that his or her achievements in research will benefit the researcher and others in the society. Furthermore, in the steps of designing research methodology and discussing and concluding the findings the researchers should be encouraged to own research values in the aspect of challenging and of considering benefits to the society. This is for enabling researchers to design and summarize his or her findings for the

implementation and utilization of the work by others people further leading to the maximum use of research results.

Professional Researcher Values consist of the following six core values: 1) working systematically, 2) having good human relations, 3) having no prejudice, 4) having high responsibility, 5) thinking logically, and 6) not violating human rights violations, all of which are core values required for conducting research in the process of designing research methodology, creating research instruments, collecting and analyzing data as far as concluding and discussing the findings. This is because these steps were seen to be related to researching successfully and these coincide with the definitions of good researchers given by the National Research Council of Thailand (2012), stating that researchers are persons required to systematically search for knowledge in response to the query issues by ways of accepted rules and methods in each related field. The means include concepts, views and methods used in data collection and data analysis. Researchers are also required to conduct proper behaviors in order to be able to research on the basis of proper ethical and academic principles as far as qualifying researching and studying standards with full dignity and honors. The aforementioned findings were similar to the findings of Siripairoj's study in 2003 who stated that researchers require volition control. That is to say, researchers must also be humble, not be arrogant, thorough and polite to the general public without using emotions to make decisions. What is more, researchers should exercise intelligence and thoroughness in making decisions with adherence to good and fair principles of knowledge in addition to having the mental power to exercise highly logical intelligence and thoughts.

Adherence to the Truth Values consisting of four core values: 1) being competent in searching for information, 2) being truthful to the data observed, 3) avoiding committing plagiarism, and 4) presenting quality research, which were found to be core values at the phases of searching for data, conclusion and discussion of the results, and presentation of the findings. Due to the fact that all the three research phases were considered steps in which the abilities of researchers is required; that is, the ability to search, analyze, synthesize, conclude and to present the real essence of the findings which is considerably beneficial to the public. Thus, researchers must be a person whose ability to search, analyze, synthesize and summarize the data is of high quality. This finding concurred with the National Research Council of Thailand's (2012) statement avowing that researchers can have independence but in every step of research conduction they must conduct it without prejudice which includes personal or academic prejudices potentially causing distortion of information and of academic discoveries. These result in research damage. Research findings must be presented based on the facts without intention to distort the findings for personal gain, or with the desire to damage others. This concurs with the concept proposed by Wiratchai (2001) who stated that principles for presenting the findings require straightforward, clear, and accurate presentation of significant research findings in order for the listeners to fully gain knowledge and benefit from the research. Suwanwela, an outstanding TRF Researcher of 1985, added that researchers require the ability to exercise logic and to consider things so that they can distinguish what to believe or not to believe. In exercising judgment, researchers need to have basic knowledge of the issue under consideration in

addition to the ability to use reasons to consider things in views of logic and other areas of thinking focusing on causes and effects (Suwanwela, 1985).

Overall, the knowledge gained from this study was the 13 research values necessary for private university faculty; they can be grouped and arranged under the three main categories. All 13 research values must be inherent in the private university faculty, and each value must coordinate with one another in order to guide and urge the private university faculty to become research lecturers with desired research behaviors in line with general research process. Persons involved in developing private university faculty can implement core values in all the three areas aforesaid as a goal for self-development. The researcher believes that many private universities aim to develop their lecturers specifically in the area of research knowledge and skills without the inclusion of research values. Therefore, setting clear research values will significantly and beneficially influence the designs of activities for the project to develop research faculty. Promoting and encouraging private university faculty to possess all 13 research values will help establish learning process in those lecturers, establish the ability to develop themselves independently, and, consequently, help make conducting research with better quality. With respect to the limitation of this research study, it must be noted that the values obtained from this research were generated in a holistic fashion; that is, an overall comprehensive study of values without considering and categorizing the research values based on different research types. With reference to the study of related documents and research articles, it has said that researchers who employ different types of research paradigm have different behaviors in working on their research. Accordingly, this is considered a new challenge for future research to investigate the extent to which the similarities and differences are between the private university faculty using one research paradigm and those using another paradigm and methodology. Does the research type determine or affect research values?

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YOUNG THAI MEN DRIVING DANGEROUSLY: A CROSS-CULTURAL VALIDATION STUDY OF THE MOTIVES FOR DANGEROUS DRIVING SCALE (MDDS)

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Abstract: The present study was conducted to investigate the cross-cultural reliability and validity of the Motives for Dangerous Driving Scale (MDDS) as a multidimensional measurement tool that can tap into different motives underlying dangerous driving among young Thai male drivers. The sample consisted of 300 participants aged between 18 to 28 years. Exploratory factor analysis yielded a three-factor structure underlying the Thai-based MDDS. These three factors represent three major motives for dangerous driving among young Thai male drivers: 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws. These three factors are highly similar to the three-factor structure identified for the original Australian-based MDDS. Reliability analysis indicated that the three motives for dangerous driving and their 31 representative items are internally consistent based on their computed Cronbach's alphas and their items' IT correlations. Tests of both convergent and criterion-related validity support the conclusion that the Thai-based MDDS is valid by these two criteria.

Introduction
Injuries and deaths resulting from road traffic crashes are a major and rising worldwide public health problem. Indeed, the present trend shows that the third leading global burden of disease and injury will be road traffic injuries by 2020 (Murray & Lopez, 1996). Moreover, the International Federation of Red Cross and Red Crescent have stated that the road traffic burden is "a worsening global disaster destroying lives and livelihoods, hampering development and leaving millions in greater vulnerability" (Cater & Walker, 1998, p. 20). This is not surprising as road traffic injuries cause an estimated 1.24 million deaths each year worldwide and some 50 million people are injured or disabled every year. Moreover, road traffic deaths are the most significant cause of death among those aged 15-29 years (World Health Organization, 2013). On average, 3,242 people die daily from road accidents (Peden, 2004). Unless there is new commitment in prevention, the number of road traffic deaths and injuries are predicted to increase over the next 20 years by about 65% (Murray & Lopez, 1996).

Road Traffic Crash in Thailand
Thailand has not been spared and the mortality rate caused by traffic accidents in the kingdom was 44 per 100 000 population per year in 2010 which ranks second highest in world-wide road traffic deaths (Sivak & Schoettle, 2014). Namibia has the highest absolute number of recorded road traffic deaths, followed by Thailand and Iran (Sivak & Schoettle, 2014). According to the Thai Health Promotion Foundation (2008), from 1989 to 2007, the rate of road traffic crashes is ranked second among the top three leading causes of death in Thailand after cancer and heart disease. In 2011, a total of 14,033 deaths due to vehicle-related crashes in Thailand were reported, and more than 500,000 people suffered injuries from traffic

crashes each year, with over 3,000 resulting in permanent disabilities (Bureau of Policy and Strategy Ministry of Health, 2013). The economic burden placed on the country as a result of traffic accidents, deaths, and injuries is estimated to be around 254,935 million Baht in both direct and indirect costs, accounting for approximately 2.36% of the country gross domestic product. The cost of road traffic deaths is estimated at 2.85 million Baht per person according to the Asian Development Bank (2004). The adverse economic impact of road traffic accidents on Thailand's economy and public health is confirmed in a study conducted by Luathep and Tanaboriboon (2005). In their study, the researchers reported that road traffic crashes are one of the crucial health issues facing Thailand, with the country's healthcare services and economy bearing excessive burden from road traffic crashes.

In line with the World Health Organization's declaration that 2011-2020 be the decade of action for road safety, the Thai government announced a 10-year national policy to reduce the number of road traffic crashes and deaths to a minimum during this period (Bureau of Policy and Strategy Ministry of Health, 2013). The National Statistic Office Thailand (2010) conducted a survey of people aged 18 and over throughout the country and found that of the 50,272,371 subjects interviewed, 1,546,337 people reported that they had been involved in road traffic crashes. The study also revealed that 1,189,133 people were injured and 11,386 people lost a limb (National Statistical Office, 2011). These grim statistics corroborate the latest data from the Bureau of Policy and Strategy Ministry of Public Health (2013) which indicated that in 2011, the number of people who died from road traffic crashes amounted to 14,033. This staggering figure equates to an average of 38 deaths per day or 3 deaths every 2 hours. Over the last 10 years, 130,000 Thai people have died annually from road traffic crashes. More than a 500,000 have been seriously injured or disabled (Health Information System Development Office, 2013).

The Australian Motives for Dangerous Driving Scale (MDDS) (Ho & Yong Gee, 2008)
In a study conducted in Australia, Ho and Yong Gee (2008) identified a number of the motives/factors that influence young Australian males to engage in dangerous driving. Their study, which employed both qualitative and quantitative methodologies, culminated in the development of the *Motives for Dangerous Driving Scale* (MDDS). The qualitative part of the study involved the use of focus groups in which the participants were asked to consider their own driving behavior and to list down as many reasons as they could think of as to why they would engage in high risk dangerous driving. These reasons were then content-analyzed and those reasons which were listed at least four times were retained. This procedure resulted in a final total of 54 reasons for dangerous driving. Forty representative statements were then written by the authors to be included in the MDDS.

The quantitative part of the study involved the use of exploratory factor analysis to identify the factor structure of the MDDS. Exploratory factor analysis of the 40 reasons for dangerous driving yielded three distinct motives for dangerous driving, namely: driving fast/risk-taking, confidence in one's driving skills, and

disrespect for traffic laws. Test of construct validity (via confirmatory factor analysis) confirmed the 'fit' of this 3-factor model. Test of criterion-related validity showed that the three motives for dangerous driving were positively correlated with experiences with traffic accidents and traffic offences, as well as with the frequency of their occurrences.

The development of the MDDS points to its utility in identifying dangerous driving motives that can assist in the development of effective treatment strategies. However, it must be noted that the MDDS was developed in Australia based on samples of Australian male drivers. As such, its cross-cultural validity when applied to Thai male drivers is unknown. The present study was conducted to test the cross-cultural validity of the Australian Motives for Dangerous Driving Scale as applied within the Thai context.

Methodology

Participants
A total of 300 participants consisting of young Thai men from the Bangkok metropolitan area volunteered to fill the in the study's questionnaire. Their ages ranged from 18 to 28 years, with a mean age of 24.95 years. The participants held a current driver's license for an average of 4.7 years. The majority of the participants (80.6%) was employed at the time of the study, and had a mean income ranging from Baht 20,001 to Baht 40,000 per month.

Material
Participants responded to a questionnaire consisting of five sections. Section 1 consisted of items written to elicit the participants' demographic information relating to their age, level of education, personal income, employment status, and how long they have held a driver's license.

Section 2 consisted of the 40-item Australian-developed Motives for Dangerous Driving Scale (MDDS) (Ho & Yong Gee, 2008). The items were to be rated on 6-point Likert scales from 1 (strongly disagree) to 6 (strongly agree), with high scores indicating strong endorsement of the driving motives.

Section 3 consisted of Zuckerman's (1994) Sensation Seeking Scale (SSS) (Form V). The 10-item scale required participants to rate each item on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The 10 items, when summed together, provide and overall index of the sensation seeking trait, with high scores indicating high need for sensation seeking.

Section 4 consisted of the 18-item Danger Assessment Questionnaire (Franken, Gibson, & Rowland, 1992). This measurement tool measures the extent to which a variety of activities are considered to be dangerous. Each item was to be rated on a 6-point Likert scale from 1 (not at all dangerous) to 6 (very dangerous), with high scores indicating strong endorsement of that activity as being dangerous.

Section 5 consisted of two sets of questions which asked whether (1) the participant had been involved in any traffic accidents (regardless of whether or not he was responsible for the accident) while driving a car in the past two years, and if 'Yes', approximately how many accidents he had been involved in as a driver and

(2) whether the participant had been charged or stopped by the police for any traffic offences in the past two years, and if 'Yes': (a) approximately how many traffic offences he had been charged or stopped by the police for, and (b) the type of traffic offences he had been charged or stopped by the police for, and their frequency in the past two years.

Translation of Questionnaire into Thai
As not all Thais read and write English proficiently, it was necessary to translate the original English version of the questionnaire into the local language. The questionnaire was translated into Thai and back-translated into English by two bilingual (English-Thai) experts in order to check for the consistency of meaning in the translated Thai version. These two bilingual experts were from the Faculty of Humanities at Chiang Mai University (CMU) and from the Faculty of Arts at Silpakorn University (SU). The two translators worked together and any inconsistencies between the 'forward translation' and 'back translation' were discussed within the Thai cultural context and resolved by the two translators.

Pre-test
A pretest of the questionnaire was conducted prior to the actual study to check for errors and for readability. Data were collected from a total of 30 participants (none of these participants participated in the main study). Upon verifying that the questionnaire was free from errors and comprehension problems, the researcher proceeded to conduct the actual study in the designated study locations.

Procedure
The distribution of questionnaires took place in various areas in Bangkok such as universities, business offices, shopping malls, and the Department of Land Transport Office, in order to obtain as diverse a sample as possible. Those who agreed to participate voluntarily were given the survey questionnaire to fill in. The purpose of the study was explained to the participants and they were also informed that (1) they could withdraw from filling in the questionnaire at any time, (2) no names would be recorded to guarantee anonymity, and (3) the data collected would only be used for the purpose of this study and only by the researcher and her advisor.

Results

Exploratory Factor Analysis
Participants' responses to the 40-item questionnaire were subjected to a principal components analysis, followed by oblique rotation. Inspection of the results revealed that 10 factors had eigen-values greater than 1.00. However, examination of the items that loaded on these 10 factors indicated that only three factors were interpretable, as well as containing the fewest number of cross-correlated items. In

conjunction with results obtained from the scree-plot, these findings suggested a three factor solution. These three factors accounted for 24.08, 7.88, and 5.34% of the total variance respectively, for a combined total of 37.30%. Oblique rotation, limited to three factors was then conducted.

From the obtained pattern matrix, a total of 31 items were retained, using the criteria of selecting items with factor structure coefficients greater than or equal to 0.40 and no significant cross-correlations. The use of the 0.40 value as a criterion for selecting items is based on the logic that squaring the correlation coefficient (0.40²) yields approximately 16% of the variance explained (Hair, Anderson, Tatham, & Black, 1997). Of the 31 items, 16 correlated with Factor 1, nine correlated with Factor 2, and six correlated with Factor 3. Examination of the items that correlated with these three factors indicated that Factor 1 consisted of items that reflected a desire to drive fast and/or to take risks while driving (e.g., I get a thrill from driving fast.; I take out my frustrations by driving fast). Factor 2 consisted of items that reflected confidence in one's driving skills (e.g., I am a skilful driver and am always in control of my driving; my driving skills allow me to negotiate traffic hazards safely). Factor 3 comprised of items that reflected a negative attitude (disrespect) toward traffic laws (e.g., It is okay to drink and drive as long as I know I am in control of my car; When driving at night, it is okay to drive through red lights or stop signs as long as I am careful).

It should be noted that these three factors extracted from the Thai-based MDDS (representing three major motives for driving dangerously among young Thai male drivers) are highly similar to the three-factor structure identified for the Australian-based MDDS. Thus, it seems that for both Australian and Thai young male drivers, their driving habit is motivated primarily by the three major motives of 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws.'

Reliability Analysis
In order to maximize the internal consistency of the MDDS derived factor solution, the items representing each of the three factors were item analyzed. Two criteria were used to eliminate items from these factors. First, an item was eliminated if the inclusion of that item resulted in a substantial lowering of Cronbach's alpha (Walsh & Betz, 1985). Second, an item was considered to have an acceptable level of internal consistency if its corrected item-total (IT) correlation was equal to or greater than 0.33 (Hair, Anderson, Tatham, & Black, 1997). Table 1 presents the three-factor multidimensional Motives for Dangerous Driving Scale (MDDS), the Sensation Seeking Scale, and the Danger Assessment Questionnaire, together with their corrected item-total correlations and Cronbach's alphas.

Table 1: Scale Items Together with Their Corrected Item-Total Correlations and Cronbach's Alphas

Driving Fast/Taking Risk	Corrected Item-Total Correlations
• I get frustrated when I'm driving in heavy traffic.	.50
• I get annoyed when someone speeds up as I am trying to	.52

Table 1: Scale Items Together with Their Corrected Item-Total Correlations and Cronbach's Alphas

overtake.	
• I get annoyed at drivers who drive slowly in the right hand lane on motorways.	.54
• I often become impatient when I have a run of red lights.	.47
• Playing loud music in the car makes me drive faster.	.59
• I tend to drive fast so I can get to my destination sooner.	.57
• I get a thrill from driving fast.	.51
• I often sound my horn or make obscene gestures at other drivers if they cut in front of me.	.52
• I tend to drive faster when I am angry.	.56
• I like to drive close behind slower drivers.	.61
• I would rather drive a car that is powerful than one that is comfortable.	.58
• I often drive through traffic lights when the light is amber.	.52
• It is okay to violate traffic laws.	.53
• I take out my frustrations by driving fast.	.55
• Exceeding the speed limit by 10 km per hour is no big deal.	.51
• I often like to change lanes even in heavy traffic.	.53
Cronbach's alpha = 0.87	

Confidence in One's Driving Skills	Corrected Item-Total Correlations
• I feel I am in control when I'm driving.	.55
• I adjust my driving style according to the road conditions.	.43
• I am a skillful driver and am always in control of my driving.	.42
• My driving skills allow me to negotiate traffic hazards safely.	.50
• I often pay attention to other road users.	.38
• I react quickly when faced with unexpected traffic hazards.	.46
• I am fluent in changing lanes in heavy traffic.	.48
• It is highly unlikely that my driving will ever cause an accident.	.40
• I am able to judge accurately the speed of an oncoming car.	.46
Cronbach's alpha = 0.77	

Disrespect for Traffic Laws	Corrected Item-Total Correlations
• I like to "race" other cars at the traffic light.	.62
• When driving at night, it is okay to drive through red lights or stop signs as long as I am careful	.46
• Driving fast is one way of showing my friends that I am a skillful driver.	.45
• Driving fast calms me down.	
• It is okay to drink and drive as long as I know I am in	.57

Table 1: Scale Items Together with Their Corrected Item-Total Correlations and Cronbach's Alphas

control of my car.	.51
• I often pull out into on-coming traffic.	
Cronbach's alpha = 0.75	.34

Examination of the Cronbach's alphas for the three dangerous driving motives and their items' IT correlations showed that all items were acceptable based on the aforementioned two criteria. As such, all 31 items were retained to represent their respective factors. Each of the three driving factors/motives of 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws,' together with the factors of 'sensation seeking,' and 'danger assessment' was then computed by summing across the items that make up that factor and their means calculated. Table 2 presents the means and standard deviations for the five computed factors.

Table 2: Means And Standard Deviations for The Computed Factors of 'Driving Fast/Taking Risk,' 'Confidence in One's Driving Skills,' 'Disrespect for Traffic Laws,' 'Sensation Seeking,' and 'Danger Assessment'

	Mean	*S.D.*	Mid-point
• Driving fast/taking risk	3.92	0.80	3.50
• Confidence in one's driving skills	4.08	0.62	3.50
• Disrespect for traffic laws	2.83	0.90	3.50
• Sensation seeking	3.10	0.71	3.50
• Danger assessment	3.40	1.05	3.50

As can be seen from Table 2, the driving motives of 'driving fast/taking risk' and 'confidence in one's driving skills' were rated above the mid-point on their respective scales, while the driving motive of 'disrespect for traffic laws' was rated below the mid-point on its scale. Thus, overall, the male Thai drivers in the present study reported that they were motivated to drive fast and to take risk, as well as possessing a high level of confidence in their driving skills. Surprisingly, they reported low disrespect for traffic laws. In terms of the participants' reported levels of sensation seeking and danger assessment, both these factors were rated below their respective mid-points. Thus, the study's Thai male drivers did not perceived themselves as high sensation seekers, and generally assessed many life situations as low in danger.

Test of Convergent Validity
To establish convergent validity, it is necessary to show that measures that should be related are in fact related. For example, the identified three dangerous driving motives of 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws,' should theoretically be related to the attitudinal variables of 'sensation seeking,' and 'danger assessment.' That is, those male drivers who score high on the motives of 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws,' should also score high in

'sensation seeking,' and low in' danger assessment.' To the extent that the significance and directions of these predicted relations are demonstrated, convergent validity is established. Pearson product-moment correlations were conducted between the three identified dangerous driving motives and the measures of sensation seeking and danger assessment. Table 3 presents the correlation coefficients between these constructs.

Table 3: Correlations between The Dangerous Driving Motives of 'Driving Fast/Taking Risk,' 'Confidence in One's Driving Skills,' and 'Disrespect for Traffic Laws' with The Attitudinal Variables of 'Sensation Seeking' and 'Danger Assessment'

	Sensation seeking	Danger assessment
• Driving fast/taking risk	0.49***	-.46***
• Confidence in one's driving skills	0.16**	-.06
• Disrespect for traffic laws	0.62***	-.50***

*** $p<.001$; ** $p<.01$; * $p<.05$

Examination of the correlation coefficients indicated that all three dangerous driving motives are significantly and positively related to the variable of sensation seeking. Thus, the more the male participants endorsed the dangerous driving motives of 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws', the higher their reported need for sensation seeking. The results also indicated that the dangerous driving motives of 'driving fast/taking risk' and 'disrespect for traffic laws' are significantly and negatively related to the variable of danger assessment. Thus, the more the male participants endorsed the dangerous driving motives of 'driving fast/taking risk' and 'disrespect for traffic laws', the lower their assessment of danger. The dangerous driving motive of 'confidence in one's driving skills' was also found to be negatively related to the variable of danger assessment, although this relationship is not statistically significant. Overall, these findings indicate convergent validity for the MDDS.

Test of Criterion-Related Validity
Criterion-related validity is denoted by the degree of effectiveness with which the performance on the MDDS predicts performance in real life. Test of criterion-related validity for the MDDS was demonstrated by correlating the summated scales for the three identified dangerous driving motives of 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws,' with the participants' reported (1) number of traffic accidents they were involved in the past two years and (2) number of traffic offences they were charged or stopped by the police within the past two years. It is hypothesized that the three identified dangerous driving motives will be positively correlated with the participants' reported frequency of traffic accidents and traffic offences. Pearson's product-moment correlation analysis was conducted to investigate the direction and strength of the relationships between the three dangerous driving motives and the

participants' reported number of traffic accidents and traffic offences experienced in the past two years. The results of this analysis are presented in Table 4.

Table 4: Correlations between The Three Identified Dangerous Driving Motives of 'Driving Fast/Taking Risk,' 'Confidence in One's Driving Skills,' and 'Disrespect for Traffic Laws,' with The Number of Traffic Accidents and Traffic Offences Reported in The Last Two Years

	Traffic accidents	Traffic offences
• Driving fast/taking risk	0.30***	.13*
• Confidence in one's driving skills	0.02	.19**
• Disrespect for traffic laws	0.28***	.13*

*** $p<.001$; ** $p<.01$; * $p<.05$

Examination of the correlation coefficients indicated that all three dangerous driving motives of 'driving fast/taking risk', 'confidence in one's driving skills,' and 'disrespect for traffic laws,' are correlated positively and significantly with the number of traffic offences reported in the last two years. Thus, the more the male participants endorsed the dangerous driving motives of 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws', the higher the number of traffic offences they reported being charged or stopped by the police within the past two years. The results also indicated that the dangerous driving motives of 'driving fast/taking risk' and 'disrespect for traffic laws' are significantly and positively related to the number of traffic accidents the participants were involved in the past two year. Thus, the more the male participants endorsed the dangerous driving motives of 'driving fast/taking risk' and 'disrespect for traffic laws', the higher the number of traffic accidents the participants were involved in the past two year. Together, these findings indicate criterion-related validity for the MDDS.

Discussion

The present study investigated the cross-cultural reliability and validity of the Motives for Dangerous Driving Scale (MDDS) as a multidimensional measurement tool that can tap into different motives underlying dangerous driving among young Thai male drivers. Exploratory factor analysis yielded a three-factor structure underlying the Thai-based MDDS. These three factors represent three major motives for dangerous driving among young Thai male drivers: 'driving fast/taking risk,' 'confidence in one's driving skills,' and 'disrespect for traffic laws. Reliability analysis indicated that the three motives for dangerous driving and their 31 representative items are internally consistent based on their computed Cronbach's alphas and their items' IT correlations. Tests of both convergent and criterion-related validity support the conclusion that the Thai-based MDDS is valid by these two criteria. Together, these findings support the cross-cultural validity of the Australian-developed Motives for Dangerous Driving Scale when applied to the Thai context.

In terms of the factors extracted from the Thai-based MDDS, it should be noted that the dangerous driving motives identified for Thai drivers are highly similar to those identified for the original Australian sample. Thus, it seems that regardless of culture, the motives to drive dangerously among young men are driven by the motives of driving fast/taking risk, confidence in one's driving skills, and disrespect for traffic laws. The only difference observed between the Australian and Thai samples is that the Thai young male drivers did not rate themselves as high sensation seekers with may denote a cultural difference reflecting the Thai 'easy going' attitude (sabai sabai, mai pen rai) as well as a feeling that life in general is not dangerous.

There seems to be a global consensus about male drivers in terms of their high-risk driving behaviour and accident rates which has long been recorded in the UK, Europe, Australia and the United States as well as in many other countries. Without exception, in all the studies carried out, male drivers have been shown to have high rates of road traffic accidents and high levels of sensation seeking with low danger perception (Evans, 1991; McKenna et al, 1998; Parker et al, 1995; Abdel-Aty & Abdelwahab, 2000; Waller et al 2001; Waylen & McKenna, 2002; & Lancaster & Ward, 2002). These characteristics are noted especially in the under-25 year category. There is also strong evidence to suggest that males are more likely to exceed speed limits as well as commit other road traffic offences than females (Storie 1977). According to Norrris et al. (2000), the greater tendencies among male drivers to be associated with traffic violations could be due to behavioural and situational risk factors, along with differences in character and a tendency to overestimate their driving abilities.

The major cultural difference between Australian and Thai young male drivers appears not to be in their driving motives but in their attitudes toward life adversities. 'Mai-pen-rai' in English means, 'it doesn't matter' or 'it's not a problem'. The expression reflects the attitude of Thai people towards themselves as well as the world around them and their daily contacts. In short, most things are acceptable to the Thai person. Unlike Australians, it is deemed normal to avoid conflicts and objections in Thailand. People in general endeavor to be tolerant and a have a compromising attitude toward life adversities (Vongvipanond 2009).

Limitations of The Study

Before discussing the implications of this study's findings, some limitations of this study must be noted. First, this study was conducted with a restrictive sample involving only young Thais in the capital and metropolitan city of Bangkok, Thailand. As such no comparative conclusions can be made between the driving motives of these Bangkok drivers with those of Thai rural drivers. In other words, given the life situations (e.g., extreme poverty) that characterize up-country living, the motives that motivate young male rural drivers to drive dangerously may be different from those identified for the Bangkok young male drivers. This suggestion is supported by the finding that the majorities of the participants (80.6%) were employed at the time of the study and had a mean income ranging from Baht 20,000 to Baht 40,000 per month. The higher education and income levels could have resulted in a decreased injury rate relative to the rural population. As such, the

validity of the study's findings may be questionable and caution should be taken when generalizing the findings from this study to young Thai male drivers in other areas in Thailand.

Second, it is impossible to obtain complete and accurate figures on road traffic accidents from statistical sources within the country. The main sources of road traffic collisions data come from different sources such as hospitals and the police department which unfortunately does not have a standardized recording system. The Traffic Engineering Division, Department of Highways covers only a quarter of national roads and primarily relies on police reports (Suriyawongpaisal & Kanchanasut, 2003). Worse of all, the accident data published by the Royal Thai Police and the Thai Department of Highways are not reliable as they are often under-reported. It should also be noted that statistics in Thailand only publish accidents where victims die at the scene of the accident unlike the WHO statistics which include data up to 30 days after the initial incident. Consequently, many fatalities, major and minor injuries have been missed from the data.

Implications

With the above limitations in mind, the findings from the present study carry a number of important implications relative to the motivation of young Thai male drivers to drive dangerously. First, the finding that the Australian developed Thai-based Motives for Dangerous Driving Scale (MDDS) is both reliable and valid provides practitioners with a diagnostic tool for measuring the motives that underlie the decision of Thai young male drivers to drive dangerously. The Thai-based MDDS may also be used by government or non-government agencies that are involved in the 'Decade of Action for Road Safety in Thailand' to identify the high-risk driving motives among young Thai drivers, and to employ these findings to tailor intervention strategies aimed at lowering the road toll.

Second, the Thai-based multidimensional MDDS may be an important contribution to the understanding of the dynamics of risk-taking behaviors among young Thai male drivers. The identification, measurement and eventually, the understanding of the motives for high-risk driving may provide the basis for predicting high-risk drivers and to help develop tools and strategies to evaluate and to provide an appropriate response in tackling the problem. Driver training and safety programs could be developed having clearly understood the motives behind high-risk driving practices. Through the development of the Thai-based MDDS, researchers and program planners may be able to focus on specific motives for dangerous driving practices. The MDDS can clearly discriminate between motives for dangerous driving and therefore could be used as a predictive marker for identifying at risk individuals and thus allowing for the tailoring of intervention programs that incorporate these motives.

Conclusion

The overall findings from the present study fit well with the growing body of evidence in the literature that support the idea of males as high risk takers, over-confident in their driving ability, and low in their danger perception, and as such represent the group that is most at risk of motor vehicle accidents. More than this,

male drivers are particularly at risk due partly to the entire social system of norms and media-driven images that equate masculinity with fast driving and performing difficult driving maneuvers (Berardelli, 2008). The cross validation of the Thai-based MDDS provides future researchers with an instrument that can act as a quick screening tool to evaluate the motives underlying the driving behaviors of young Thai male drivers. While the present study has been successful in identifying the high-risk driving motives that typify the driving behaviors of young Thai male drivers, continued research in this area is crucial if effective programs are to be developed that can effectively lower the high road fatality and injury rates of this group of drivers (Ho & Yong Gee, 2008).

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THE INFLUENCE OF GOAL STRIVING AND SELF-EFFICACY ON LIFE SATISFACTION, MEDIATED BY HOPE, AMONG THAI WORKING PERSONS

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Abstract: This investigation attempted to examine the influence of goal striving and self-efficacy on life satisfaction, being mediated by hope, among Thai working persons. Data were collected from 523 working persons in the Bangkok area. A self-administered survey questionnaire in Thai was employed for data collection. The questionnaire consisted of the following: a researcher-constructed set of questions to elicit demographic information, the Goal Striving Scale (GSS) to measure the level of goal attainment in various areas of life, the General Self-Efficacy Scale (GSE) to measure optimistic self-belief or self-efficacy, the Adult Trait Hope Scale (ATHS) to measure the global concept of hope, and the Satisfaction With Life Scale (SWLS) to measure global cognitive judgments of satisfaction with one's life. The results of Study I revealed that the Thai versions of the GSS, GSE, ATHS, and SWLS are psychometrically sound and, therefore, reliable and valid for use with Thai participants. In Study II, the fully identified path model demonstrated that both goal striving and self-efficacy have indirect significant influence on the criterion variable of hope and, subsequently, effected a higher level of life satisfaction, whereas only goal striving has direct positive influence on life satisfaction. It was also found that the full indirect model best explains the interrelationships among the core variables.

Keywords: Goal Striving, Self-Efficacy, Hope, Life Satisfaction, Thai Working Persons.

Introduction

High level of stress and long hours of work culture has led to mental health problems among working people worldwide. The World Health Organization (WHO) estimated that nearly half of the world's population is affected by mental illness, with an impact on their self-esteem, relationships, and ability to function in everyday life. More than 450 million people suffer from mental disorders, and many more have undisclosed mental problems (WHO, 2003). By the same token, Thailand has concerns about working people with mental health issues. In recent years, besides high stress level and long hours of work, Thai workers have been affected by high competition and influx of technology, coupled with economic uncertainty, political unrest, and natural disasters. All these factors contribute to stress in daily life which could lead to mental health problems.

The current researcher posited that there are factors that can help the *working person* enhance significantly his or her level of *goal striving*, along with improvements in metacognitive processing (i.e., self-reflection and insight). An individual's expectation that he or she will, subsequently, develop a high sense of *self-efficacy* in order to effectively fulfill one's goals in various stages of life would help generate more *hope*, *life satisfaction*, and advancement in life.

Individuals have fundamental needs for competence, relatedness, and autonomy, and every behavior and resulting well-being is influenced by his or her ability to satisfy these needs through goal pursuits (Deci & Ryan, 2000). In so doing, it would be a preventative means towards psychological well-being by lowering one's levels of depression, stress, and anxiety, an assertion echoed by Green, Grant, and Rynsaardt (2007). By being happy, the working person's commitment towards his or her work and the organization would definitely increase and, thus, generate more productivity and happiness towards their surrounding circle of co-workers and immediate family.

Objectives

The principal aim of the current study was to examine the causal relationship model on how goal striving and self-efficacy impact on well-being outcomes, specifically life satisfaction, being mediated by hope, particularly among Thai working persons. In the process, this study attempted to explore the relationships among four latent variables (i.e., goal striving, self-efficacy, hope, and life satisfaction).

To meet its objectives, this investigation was divided into two separate but interrelated phases or studies (i.e., Study I and Study II). Study I involved the translation of selected Western standardized instruments into Thai and establish the psychometric properties of the Thai-translated versions of the Goal Striving Scale (GSS), the Adult Trait Hope Scale (ATHS), the General Self-Efficacy Scale (GSE), and the Satisfaction with Life Scale (SWLS). Study II aimed to: (1) investigate the direct and indirect structural relationships among goal striving, general self-efficacy, and the criterion variable of life satisfaction, being mediated by the factor of hope, among Thai working persons, and (2) identify the path model that best explains the interrelationships among the core variables.

Literature Review

The following abridged review of literature contains theoretical perspectives and empirical findings which demonstrate interrelationships among the key variables of goal striving, self-efficacy, hope, and life satisfaction.

Goal Striving

Goal striving is the foundation of successful self-regulation in which a person may take control over (i.e., self-regulate) the setting of a goal(s) by making if–then plans (i.e., form implementation intentions) that specify an anticipated critical situation and link it to an instrumental goal-directed response. Individuals select personal goals from a variety of life domains and work towards their attainment. It had been recognized that the possession of and progression towards important life goals are associated with increased well-being (Sheldon, Kasser, Smith, & Share, 2002). Furthermore, goals also represent an individual's strivings to achieve personal self-change and enhance the meaning of and purpose in life. In this study, goal striving was measured by means of the Goal Striving Scale developed by the researcher.

Self-Efficacy

Self-efficacy is the "belief in one's capabilities to organize and execute courses of action required in order to manage prospective situations" (Bandura, 1994, p. 71). In other words, it is a person's belief in his or her ability to succeed in a particular situation. Bandura described these beliefs as determinants of how people think, behave, and feel. Virtually all people can identify goals they want to accomplish as well as things they would like to change and achieve. However, most people also realize that putting these plans into action is not quite so simple. Bandura (1997) demonstrated that an individual's self-efficacy plays a major role in how goals, tasks, and challenges are approached. In this study, self-efficacy was measured by means of the General Self-Efficacy Scale developed by Schwarzer and Jerusalem (1995).

Hope

Hope is how people think about goals (Snyder, 1995). It is a cognitive set that involves a reciprocally derived sense of successful goal-directed determination. It also involves finding or planning different ways to achieve those goals (Snyder, 2002). Hope theory has three components: goals, pathway thinking, and agency thinking. In this study, hope was measured by means of the Adult Trait Hope Scale developed by Snyder and associates (1991).

Life Satisfaction

Life satisfaction refers to a global cognitive judgmental process of one's life (Diener, 2000; Diener, Emmons, Larsen, & Griffin, 1985). The significant characteristic of life satisfaction is that it is people's own opinion about themselves; that is, it is people's overall judgment of how satisfied they are with their present state of life, compared to their own standards. In the present study, life satisfaction was measured by means of the *Satisfaction with Life Scale* (SWLS), developed by Diener, Emmons, Larsen, and Griffin (1985).

Methodology

Participants

A total of 523 participants (male: n=191, 36.5%; female: n=332, 63.5%) were involved in the confirmatory factor analysis phase of the study. The participants' ages ranged from 18 to 60 years, with a mean age of 31.91 years (*median*=30 years).

Instrumentation

The researcher used a self-administered survey questionnaire with Likert-type rating scales for data gathering. The questionnaire consisted of a researcher-constructed Personal Information section and the following psychometric scales: Goal Striving Scale (GSS), Adult Trait Hope Scale (ATHS), General Self-Efficacy Scale (GSE), and the Satisfaction with Life Scale (SWLS).

Pretest

Prior to the actual study, a pretest of the Thai version of the survey questionnaire was conducted to check for errors and for readability. A total of 30 participants aged between 25 and 55 years (mean age=33.5 years) were invited to fill in the Thai questionnaire and requested to report any errors and/or difficulties in the readability of the directions and item statements. Upon verifying that the questionnaire was free from errors and comprehension problems, the researcher proceeded to conduct the actual study.

Data Collection

The convenience sampling method was used to recruit participants. To increase the probability of obtaining a larger sample, completion of the questionnaire was conducted in person. Potential participants were approached in various offices around Bangkok, and were informed about the general nature of the study. Those who met the inclusion criteria were invited to fill in the survey questionnaire. They were also informed that they could withdraw from the data gathering exercise at any time, that no names would be recorded to guarantee participants' anonymity, and that the data collected would only be used for the purposes of this study and accessed only by the researcher and research advisor.

Results

Study I

As the GSS, GSE, ATHS, and SWLS were translated into the Thai language, it was necessary to investigate their psychometric properties in order to ensure their cross-cultural reliability and construct validity, prior to their use in the present study. This involved the following procedural steps.

Step 1: Reliability Analysis

Examination of the Cronbach's alphas for the Goal Striving Scale (GSS = .90), the General Self-Efficacy scale (GSE = .83), the Adult Trait Hope Scale (ATHS= .88), and the Satisfaction with Life Scale (SWLS=.85) showed that they ranged from .83 (GSE) to .90 (GSS). Examination of their items' I-T correlations showed that 9 items from the GSS have corrected item-total correlations lower than the criterion of .33, but that their deletion would have lowered the scale's overall Cronbach's alpha. As such, these items were retained. Thus, the factor of 'goal striving' (GSS) is represented by 40 items, the factor of 'self-efficacy' (GSE) is represented by 10 items, the factor of 'hope' (ATHS) is represented by 8 items, and the factor of 'life satisfaction' (SWLS) is represented by 5 items.

Step 2: Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) was carried out to evaluate the factor structures of the GSE, the ATHS, and the SWLS (it should be noted that the factor of 'goal striving' was employed as a measurement variable in the present study, due to its inability to converge as a latent construct represented by its 40 items). CFA, unlike exploratory factor analysis, allows the researcher to explicitly posit an *a priori* model (e.g., on the basis of the factors identified in the western-based original scale)

and to assess the fit of this model to the observed data. After ensuring that the collected data set meets the assumptions underlying CFA, the X² goodness-of-fit test (via structural equation modeling) was employed to test the null hypothesis that the sample covariance matrix for the model was obtained from a population that has the proposed model structure. The following Figure 1 depicts the three-factor measurement model representing the latent constructs of self-efficacy, hope, and life satisfaction and Table 1 presents the goodness-of-fit indices for the three-factor model.
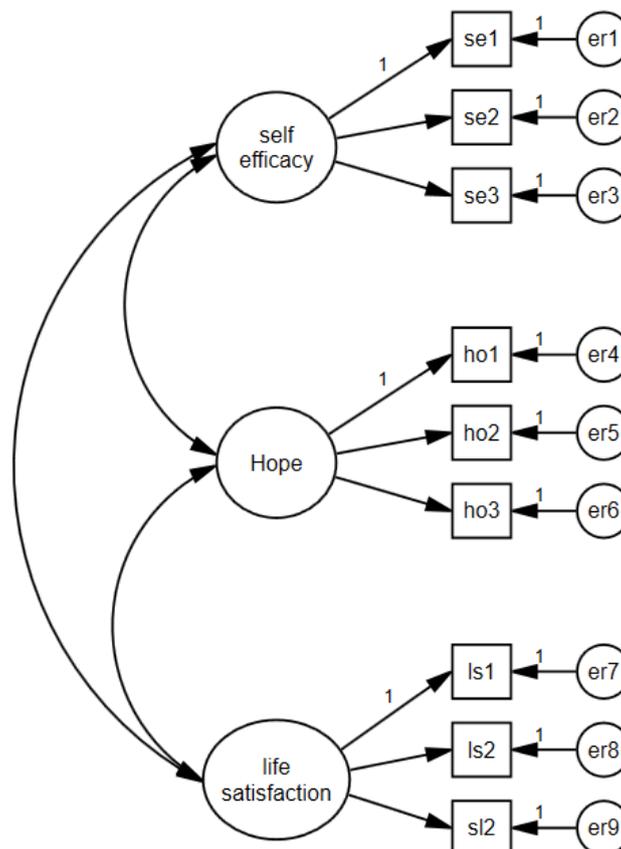
Figure 1: Three-Factor Measurement Model Representing The Latent Constructs Of Self-Efficacy, Hope, and Life Satisfaction

Table 1: X² Goodness-of-Fit Value, Normed Fit Index (NFI), Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA)

3-Factor Model	X² (*N*=523)	*df*	*p*	NFI	IFI	TLI	CFI	RMSEA
Null Model	12779.46	55	<.001	0.00	0.00	0.00	0.00	0.66
3-Factor Model	286.33	41	<.001	0.98	0.98	0.97	0.98	0.10
(GSE, ATHS, and SWLS)								

The chi-square goodness-of-fit value for the 3-factor model is statistically significant, (df=41)=286.33, p<.001, suggesting that the covariance matrix for the posited 3-factor model does not fit the sample covariance matrix well, the incremental fit indices (Normed Fit Index – NFI, Incremental Fit Index – IFI, Tucker-Lewis Index – TLI, Comparative Fit Index – CFI) are all above 0.90. These fit indices indicate that the 3-factor model provides a very good fit relative to its null or independence model (i.e., the posited model represented over 90% improvement in fit over its null or independence model), and support the hypothesized structure of the posited 3-factor model. The RMSEA value of 0.10 is slightly above the range (.04-.08) suggested by Browne and Cudeck (1993) and indicates that the model offers only a fairly good fit relative to the population covariance matrix.

While the above fit indices can be used to evaluate the adequacy of fit in CFA, it must be noted that this is only one aspect of model evaluation. As pointed out by Marsh and colleagues (e.g., Marsh, 1996; Marsh & Balla, 1994; Marsh, Hau, & Wen, 2004), model evaluation should be based on a subjective combination of substantive or theoretical issues, inspection of parameter estimates, goodness-of-fit, and interpretability. Table 2 presents the standardized regression weights, residuals, and explained variances for the 3-factor model.

Table 2: Standardized Regression Weights, Explained Variances, and Residual Variances for the GSE, ATHS, and SWLS Indicator Variables

Parameter			Standardized Regression Weights	Explained Variances	Residual Variances
GSE					
se1	<---	GSE	.85	.72	.28
se2	<---	GSE	.84	.70	.30
se3	<---	GSE	.83	.69	.31
ho1	<---	ATHS	.93	.86	.14
ho2	<---	ATHS	.85	.73	.27
ho3	<---	ATHS	.70	.49	.51
ls1	<---	SWLS	.87	.75	.25
ls2	<---	SWLS	.91	.83	.17
sl2	<---	SWLS	.82	.67	.23

The standardized regression coefficients (factor loadings) for the measurement indicators are all positive and significant by the critical ratio test, p<.001. Standardized loadings ranged from 0.82 to 0.93 (M = 0.84). These values indicated that the indicator variables hypothesized to represent their respective latent GSE, ATHS, and SWLS constructs did so in a reliable manner. The percentage of residual (unexplained) variances for the 9 indicator variables ranged from 14% (i.e., 86% of the variance explained) to 51% (i.e., 49% of the variance explained).

The result of confirmatory factor analysis confirmed and further clarified the adequacy of the factor structures in representing attitudes toward self-efficacy (GSE), hope (ATHS), and life satisfaction (SWLS). Tests of both convergent and

criterion-related validity showed that the GSS, GSE, ATHS, and SWLS are valid by these two criteria. Together, these findings point to the sound psychometric properties of the Thai-translated versions of the GSS, GSE, ATHS, and SWLS, and support their use within the Thai setting.

Study II

Study II aimed to investigate the direct and indirect structural relationships among goal striving, general self-efficacy, and the criterion variable of life satisfaction, being mediated by the factor of hope, among Thai working persons as well as identify the path model that best explains the interrelationships among the core variables.

Path analysis was conducted to evaluate the posited path model as to its efficacy in explaining the influence of the identified antecedent factors of goal striving and self-efficacy on the participants' reported level of life satisfaction, both directly and indirectly, being mediated by the factor of hope.

The fit of this fully identified path model was tested via structural equation modeling. Although the overall chi-square goodness-of-fit value was significant, $x^2(df = 49) = 331.336$, $p < .001$, the incremental fit indices (NFI, IFI, TLI, CFI) were all above 0.90 (range: 0.966 – 0.978). These fit indices indicated that the model provided a very good fit relative to a null or independence model (i.e., the posited model represented between 96.6% to 97.8% improvement in fit over the null or independence model), and support the hypothesized structure of the posited path model. The RMSEA value of 0.105 indicates some error of approximation and indicates that the model fits the population covariance matrix fairly well. Table 3 presents the goodness-of-fit indices for the fully identified model. This is followed by Figure 2 which depicts the fully identified mediation model.

Table 3: Chi-Square Goodness-of-Fit Values and Incremental Fit Indices (NFI, IFI, TLI, CFI)

| Model	X^2 (*N*=523)	*df*	*p*	NFI	IFI	TLI	CFI
Fully Identified Model	331.336	49	<.001	0.975	0.978	0.971	0.978
Independence Model	12995.795	66	<.001	0.000	0.000	0.000	0.000

(See Figure 2 on the next)
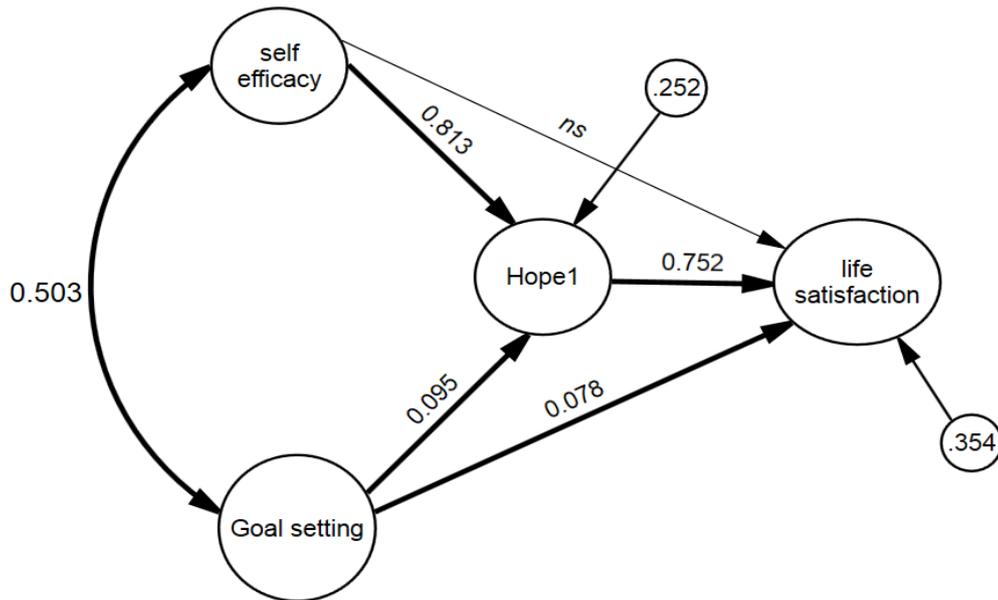
Figure 2: Fully Identified Mediation Model Showing The Hypothesized Direct and Indirect Relationships among Self-Efficacy, Goal Striving, and The Dependent Variable of Life Satisfaction, Being Mediated by Hope

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The results of path analysis revealed that the posited path model fitted the data set well, with the factor of goal striving having both direct and indirect positive influences on the participants' reported level of life satisfaction. Thus, the higher the participants' level of goal striving, the higher is their reported level of life satisfaction. In addition, the higher the participants' level of goal striving, the higher their reported level of hope and, subsequently, the higher is their reported level of life satisfaction.

The participants' reported level of self-efficacy was found to have only an indirect influence on the criterion variable of life satisfaction. Thus, the higher their reported level of self-efficacy, the higher their reported level of hope and, subsequently, the higher is their reported level of life satisfaction.

Discussion

The results demonstrated that only goal striving has a direct and positive relationship with the criterion variable of life satisfaction, whereas both goal striving and self-efficacy were found to have an indirect influence on the criterion variable of life satisfaction. This current finding is in accord with past findings in that one of the most important factors to regulate and adapt individuals to their lives is goals (Diener & Seligman, 2002; Emmons, 1999). The self-determination theory investigates subjective well-being in individuals with respect to goals and satisfaction of needs (Sheldon & Kasser, 1998). According to this model, people must determine intrinsically their goals. Then, they should attach themselves to their goals, and spend effort to actualize their goals. When people actualize their goals,

they should also satisfy their needs (Ryan & Deci, 2001). Thus, their level of subjective well-being gets a better position (Sheldon & Elliot, 1998).

The non-significant correlation found in terms of the direct influence of self-efficacy on the criterion variable of life satisfaction is inconsistent with past findings. For example, Magaletta and Oliver (1999) reported that self-efficacy in young adults significantly predict their life satisfaction and that a high level of self-efficacy is of importance as it determines psychological well-being and psychological harmony (Cutler, 2005). Moreover, self-efficacy is the most effective belief in oneself relative to solving real life problems in order to experience life satisfaction and be happy (Dora, 2003).

The current study found a positive correlation between goal striving and self-efficacy, and demonstrated that one influences the other mutually. This particular result confirms a theoretical perspective reported in various researches on the relationship between goal setting and self-efficacy. For example, Locke and Latham (2002) posited that goal-setting theory is consistent with social-cognitive and expectancy theory because they underline the importance of consciously set goals and self-efficacy.

Another current finding is that hope mediates the impact of goal striving and self-efficacy on life satisfaction. Furthermore, a stronger correlation was found in terms of the indirect influence of self-efficacy, being mediated by hope, as evidenced by a Beta of .813, compared to the indirect influence of goal striving, being mediated by hope, with a Beta of .095 from the path model being tested. The result showed a closer relationship between self-efficacy and hope. Both hope and self-efficacy theories stipulate that goal-directed behavior is important and worthy of an individual's persistent attention as both evaluate whether goal-directed behavior will produce a desired result (outcome expectancy in Bandura's model; pathways thinking in Snyder's model). Additionally, both predict that an individual can assess one's capacity to perform the required behavior (*efficacy expectations* in Bandura's model; *agency thinking* in Snyder's model) (Snyder et al., 2002). In particular, it had been demonstrated that self-efficacy is related to academic performance (ranging from $r=.27$ to $r=.54$). A study by Wood and Locke (1987) showed that students often employ specific strategies to monitor their progress and support their goal pursuit, and that these strategies can also be influenced by self-efficacy. Whereas self-efficacy emphasizes the expectation that one can perform appropriate goal-directed behaviors, hope includes additional cognitive elements of planning and motivation.

The current study reported a positive correlation between hope and the criterion variable of life satisfaction, with the result indicating a strong Beta of .752. This outcome confirms a statement by Bailey, Eng, Frisch, and Snyder (2007, p. 173) that "overall, `believing that one can achieve goals leads to increased well-being." In a similar vein, Snyder et al. (2002) found positive correlations between hope, self-efficacy, and feelings of self-worth. By the same token, Irving et al. (2004) found that "those who were higher in hope reported a greater ability to cope with stress and regulate distressing emotions" (p. 437).

Park, Peterson, and Seligman (2004) posited that hopeful individuals tend to have a positive view about the future. This belief allows them to have a positive

outlook about themselves that would help increase their motivation and lead to activities and means that are directed toward actively pursuing personal goals (Hartley, Vance, Elliott, Cuckler, & Berry, 2008). It had been established that individuals who are high in hope feel more competent of their own skills which, in turn, allows them to be able to generate more ways and sustain their motivation towards goal attainment in order to achieve goals in various aspects of their life, increasing their chances of fulfilling their goals and, thus, gain a sense of satisfaction rather than harboring pessimistic thoughts about failure and challenges as threats that may contribute toward negative feelings and emotions (Lyubomirsky, King, & Diener, 2005). Hence, hopeful individuals, more likely, succeed in their endeavors, allowing them to gain a sense of fulfillment or satisfaction, thereby increasing their life satisfaction.

Positive psychology is concerned with the impact of hope on well-being. Hope is seen as the belief in one's ability to initiate and maintain movement as well as conceptualize routes toward a goal. Snyder et al. (2002) purported that positive emotions result from unimpeded movement towards one's desired goals or successfully overcoming obstacles. Conversely, negative emotions result from the unsuccessful pursuit of goals, where agency and/or pathways thinking may not have been sufficient and/or obstacles have not been overcome. To support this claim, Snyder et al. (2002) referred to studies in which participants who encountered severe difficulties in attaining their goals reported lowered well-being.

Limitations and Recommendations
Despite this study's overall success in terms of meeting its objectives, there are limitations that need to be considered when interpreting the results of path model analysis. First, the present study relied exclusively on the Satisfaction with Life Scale to measure life satisfaction among working persons. It is possible that utilizing additional measures similar to those used in some previous related studies (e.g., Positive and Negative Affect Scale or PANAS; Depression, Anxiety, and Stress Scale or DASS) might have led to a different outcome. Instrumentation may have been one of the factors why the current study did not find any correlation between self-efficacy and life satisfaction.

Second, this study was conducted with a limited sample that involved only office workers in Bangkok and suburbs, due to time constraints. It can be assumed that the sample may not have much difference in terms of income, education, and occupation. Although diversity was considered in the selection process, the external validity of the findings may still be questionable. As such, caution is advised when generalizing the current findings to other working persons in other areas of Thailand.

Third, this study utilized a self-report measure which required participants to recall and rate their perceptions. Such retrospective style of responding forces the participants to rely on their memory when responding to the questionnaire items. Reliance on memory, per se, is clearly subjected to memory errors/lapses which can adversely affect the accuracy of the participants' true feelings/responses.

Fourth, another important point is that this study was conducted in Thailand while most related studies were conducted in Western countries. Cultural

differences may possibly explain different outcomes. This researcher acknowledges the lack of Thai-based theoretical perspectives and related studies. Discussion relied heavily on Western perspectives and empirical findings which may not necessarily reflect Thai culture and values.

Finally, Thai society, being collectivistic, places great importance on the well-being of the extended family and community rather than on the individual per se. Future research that assesses the fit between theoretical conceptualizations of well-being and societal values is warranted.

With the above limitations in mind, the present findings carry a number of important implications relative to the influence of goal striving and self-efficacy on life satisfaction among Thai working persons. The results demonstrated that self-efficacy alone cannot influence well-being but, when coupled with goal striving and mediated by hope, can be a strong predictor of life satisfaction. In combination with previous related findings, a clear picture is beginning to emerge about the benefits of goal striving (goal setting) as an important element, thus, closing an important gap in the literature on the link between goal striving, self-efficacy, and life satisfaction.

The Thai-translated GSS provides future researchers with a valid and reliable tool in exploring life goals within the Thai context. The said Thai version also provides Thai practitioners with a psychometrically sound diagnostic tool for measuring the extent of various dimensions of life goals in terms of emotional, spiritual, and personal development, as well as health, finance, work, family, and social interaction among Thais of working age. Moreover, the theory-based path models employed in the present study and the obtained findings can serve as a knowledge resource and database for helping professionals such as counselors, psychologists, life coaches, and other practitioners who are concerned with the development and implementation of intervention strategies or therapies that could prove helpful in increasing psychological well-being. The other Thai-translated and validated measures used in the current investigation such as the GSE, ATHS, and SWLS could also serve as valuable assessment tools for the emerging coaching industry, a contemporary trend which brings about sustained cognitive, emotional, and behavioral changes that facilitate the attainment of goals and the enhancement of performance, either in work or personal life.

Finally, an important implication rests with the findings on the indirect and direct structural relationships hypothesized by the full-direct model on the influence of goal striving and self-efficacy on life satisfaction, being mediated by hope. With the knowledge at hand, counselors, life coaches, and training facilitators are well-advised on what key elements to look for when developing treatment programs or intervention strategies. Snyder et al. (2002) highlighted the use of 'hope theory' in psychotherapy and referred to hope as being a core ingredient in the process of change, which is in line with the present finding that hope aids in increasing goal striving and psychological well-being among non-clinical populations.

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A COMPARATIVE STUDY OF STUDENTS' PERCEPTIONS OF EXPECTED ICT USE AND ACTUAL ICT USE IN CLASSROOM PRACTICES AT NAWAMINTHRACHINUTHIT BODINDECHA SCHOOL, THAILAND

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Abstract: The purpose of this study was to determine if students' perceptions of expected Information Communication Technology (ICT) use were being met. This research study examined grade 10 through 12 students' perceptions of expected and actual ICT use in three subjects; English, Mathematics and Science. The research was conducted on 9 different classes at Nawaminthrachinutit Bodindecha: three classes for each grade level. Also, one class in each grade level represented the one of the three main programs of study: English; Mathematics; and Science. Through the use of a questionnaire that was created by the researcher, he compared upper secondary students' perceptions of expected ICT use to their perceptions of actual ICT use. This study is relevant because the Ministry of Education in Thailand is putting forth great effort to implement the curriculum reforms, which emphasize the utilization of ICTs in the teaching and learning process. This research concluded that although the level of upper secondary students perceptions of actual ICT use is high, their perceptions of expected ICT use are not being met in all three subjects examined. Future studies should examine lower secondary students' and teachers' perceptions. Courses should be examined individually instead of grouped together by general subject content. Research should be conducted in rural areas of Thailand where ICT is less prevalent. Finally, when expectations are not met it lowers motivation. Future researcher should examine how unmet expectations of ICT use affect student motivation.

Keywords: Students' Perceptions, Expected ICT Use, Actual ICT Use, Upper Secondary Classroom Practices.

Introduction

One of the essential purposes of the modern educational system is to prepare students to be valuable members of society. To do this effectively, students have to be provided with the preliminary skills the current workforce requires. As each day passes, it is becoming increasingly clear that a basic understanding of information communication technology (ICT) is necessary for the majority of jobs. A survey conducted by Madden and Jones (2008) for Pew Research Center concluded that an estimated 62% of employed Americans are considered *Networked Workers*, meaning that they use the Internet daily in their jobs. Moreover, 96% of the employed workers surveyed, admitted to using ICT in some way. As the Internet becomes easier to access and a more integral part of daily life, the demand for employees who are digitally literate is sure to increase. In order to prepare students to be competitive in the work force, schools everywhere must evolve to provide students with the 21st century skills that are necessary in the current society.

The Thai National Education Act (1999) addressed issues that were of consideration concerning the integration of ICT in the public school system in Thailand. The document stated that the State would provide all schools with ICT for the purpose of integrating modern technology into the national curriculum. It also stated that educators would be provided instruction on how to use and utilize the

ICT that had been supplied. The decree expressed that all students had a right to learn with ICT and these standards were designed to ensure that all schools in Thailand were using ICT as quickly as feasible. While the Thai National Education Act expressed a need for ICT reform the Basic Education Core Curriculum (Thai Ministry of Education, 2008) implemented the reforms of ICT in Thailand's educational systems. Both of these documents expressed an admitted need for ICT, matching many of the current trends that focus on an emphasis of 21st century skills in the classroom. However, even though the amount of ICT in schools is increasing and teachers are becoming more accepting of the usefulness of ICT, the headway is inching forward slowly (Laohajaratsang, 2010). Recently the International Computer Information Literacy Study (ICILS) ranked Thai students next to last in a study conducted by the International Association for the Evaluation of Educational Achievement (IEA). This substantiated the claim that Thailand was lagging behind other countries when it came to meeting ICT needs in the classroom (Kupferman-Sutthavong, 2014). According to the study Thai students who participated scored 25% below average.

The researcher has found through his two years of experience as a teacher at Nawaminthrachinutit Bodindecha that teachers are not utilizing the available ICT, contrary to the directives of the Thai National Education Act (1999) and the Basic Education Core Curriculum (Thai Ministry of Education, 2008) to provide students with ICT experience in the classroom. Through discussion with the students, the researcher observed that many students felt they were lacking the necessary experience with ICT to be prepared for undergraduate studies. Moreover, the students expressed that the lessons were not taught in a way that kept their interest and that they felt they would learn more efficiently if the teachers would incorporate more technology into their pedagogy. Due to these reasons the researcher wanted to conduct research on this topic to identify if there was a misconception in students' perceptions of expected ICT use.

Objectives

The objectives listed below were contemplated when identifying the purpose of this study. The researcher considered them the goals that this research aimed to achieve.

1. To identify the level of upper secondary students' perceptions of expected ICT use in classroom practices.
2. To identify the level of upper secondary students' perceptions of actual ICT use in classroom practices.
3. To determine if there is a significant difference between upper secondary students' perceptions of expected ICT use and actual ICT use in classroom practices.
4. To determine if there is a significant difference between upper secondary students' perceptions of expected ICT use and actual ICT use according to the subjects in classroom practices.
   4.1 To determine if there is a significant difference between upper secondary students' perceptions of expected ICT use and actual ICT use in English in classroom practices.

4.2 To determine if there is a significant difference between upper secondary students' perceptions of expected ICT use and actual ICT use in Math in classroom practices.

4.3 To determine if there is a significant difference between upper secondary students' perceptions of expected ICT use and actual ICT use in Science in classroom practices.

Theoretical Framework

The research conducted was based on the following two Theories:

1. Social Development Theory – a theory of learning that stated that people learn through social interactions.

2. Engagement Theory – students learn best when they are engaged in an activity (provided by some form of ICT) that is authentic and is beneficial for society.

Social Development theory was primarily developed by Vygotsky, as a reaction to Piaget's theory of cognitive development. The theory was comprised of three basic components: the role of social interaction in cognitive development; the more knowledgeable other (MKO); and the Zone of Proximal Development (ZPD) (Sincero, 2011).

The social development theory emphasized the importance of social interactions and stated that these interactions are how people learn. Therefore, the role of social interaction in cognitive development referred to the concept that learning (through social interactions) preceded cognitive development (Sincero, 2011).

The MKO is anyone who already understands a concept or skill that the learner has not yet acquired. Generally MKOs are thought of as teachers, mentors or parents; however, they can be anyone who is more knowledgeable (Sincero, 2011). Moreover, physical presence is not necessary for there to be a MKO. A person can convert their thoughts to words and therefore the MKO can refer to text as well (McLeod, 2014). The ZPD alludes to what a person knows, what they do not know and what they can learn with the assistance of an MKO.

Engagement theory stated that students learn most efficiently when they are fully engaged and interacting with others in an authentic activity. The theory suggested that in order for current students to achieve a level of thorough engagement, an element of ICT is likely needed. The theory was based on three principles that thoroughly engage students: *Relate, Create, Donate* (Kearsley & Shneiderman, 1998).

When students relate, they are pooling their experiences together to have a culmination of knowledge and skills. Students collaborate in a variety of learning environments by different means (Kearsley & Shneiderman, 1998). The *Relate* component is not restricted to face-to-face interactions. It extends into the digital world that includes a variety of options for collaborating skills. Not only because the Internet transcends boundaries such as time and space but also because it is an ever-growing source of information.

The *Create* component refers to providing students with problem-based leaning tasks. This is important for students to be engaged because it gives students an outlet for them to apply the information they gathered when they were relating (Kearsley & Shneiderman, 1998). Moreover, it provides an activity that triggers cognitive recollection so they can remember more effectively.

The *Donate* aspect provides purpose to the problem-based learning activities. When students donate, they provide a service to society (Kearsley & Shneiderman, 1998). This ensures that the tasks are grounded in authentic problems, which helps students to see the value of what they are doing.

Literature Review

With a surplus of tools available in schools today many feel it is important to utilize the available resources to provide the best learning experience possible. For example, incorporating ICT into education has been a priority for most schools in Europe for a decade. There is, however, little evidence of significant progress with respect to integrating ICT into the teaching and learning process (Morocco World News, 2014). That being said, schools that are better equipped with ICT generally have higher levels of student achievement, and many teachers have attributed student achievement to ICT accessibility (Morocco World News, 2014).

One major advantage ICT brings to education is that it can extend the learning process into students' homes. Digital platforms and online resources transcend time and space allowing students access to learning resources anytime they want as long as they have an Internet connection (Mohanty, 2011). This provides students with the ability to work on assignments continuously. Consequently it also allows them the time to formulate their ideas and review and edit their work. Freedman (2011) suggested that ICTs are great tools for improving student achievement because they allow students to revise their work until they are satisfied with its quality. This is consistent with the findings of a recent study in Canada, which concluded that laptops helped students in primary school with their writing performance in terms of speed, quantity and quality (Karsenti et al., 2012).

Time and space are not the only boundaries that are transcended with ICT. Access to the Internet provides students and teachers with an abundance of learning materials from which to choose, which is especially useful for people in developing countries that do not have access to updated resources (Mohanty, 2011). Digital devices such as laptops, tablets and smartphones bypass locational obstacles allowing students to connect with peers and teachers, promoting social learning opportunities (Papic & Bester, 2012).

As can be seen, a strong argument is made for the many benefits of ICT in education. However, although it is becoming apparent that digital literacy skills are a necessity for future workers, some are not convinced of the effectiveness of ICT educational benefits (Livingstone, 2012). Livingstone (2012) argued that even though there were many studies that had shown positive perceptions of ICT effectiveness, few of these studies had provided a control group that followed more traditional teaching approaches and therefore were not valid. Furthermore, the independent studies that did conduct valid research saw little difference.

Evidence for Livingstone's assertions comes in a two-year case study, supported by The World Bank, which found that placing computers in public schools in Colombia failed to provide a measureable increase in test scores (World Bank, 2011). They continued with an explanation that the lack of results might be due to lack of training in ICT pedagogy. Nevertheless, the results did not support the claim that being able to access the Internet improves test scores.

Research conducted by Hall (2015) yielded similar results. Hall (2015), evaluated the effects of traditional and technology based math proficiency practice of 4th grade students. The study aimed to measure student achievement and motivational levels when using iPad applications versus flash cards when practicing math facts. The results indicated that there was no difference in achievement levels between the traditional and technologically based protocols. Furthermore, there was no significant difference in motivation either (Hall, 2015).

Salehi and Salehi (2012) suggested that while ICTs may be helpful in student achievement, they also might be more trouble than they are worth. Before effective instruction with ICTs can take place teachers must cross certain barriers that they many times do not get support for. Some of these barriers include time for using ICTs, time for learning about ICTs, little access to the Internet, professional development and technical support (Salehi & Salehi, 2012). Nevertheless, they did mention that teachers should be aware of the current trends so that they can be ready to make a future switch to ICT if it is necessary.

Research conducted on Nigerian higher educational institutions (HEI) back up Salehi and Salehi's claims of issues concerning ICT in schools. Academic staff listed time and training as the two largest barriers keeping teachers from effectively teaching with ICT. Other issues that are worth mentioning are a lack of technical support and no incentive for making the change in pedagogy. Still, 89% of participants marked that ICT is mandatory.

Conceptual Framework

Figure 1 shows the conceptual framework of this study. As can be seen, the grade 10 – 12 students' perceptions of expected ICT use and actual ICT use were measured separately. The researcher then compared the level of the upper secondary students' perceptions of expected ICT use and their perceptions of actual ICT use. Then the researcher compared the students' perceptions of expected ICT use and their perceptions of actual ICT use according to the three core subjects in Nawaminthrachinuthit Bodindecha's curriculum: English, Math and Science.
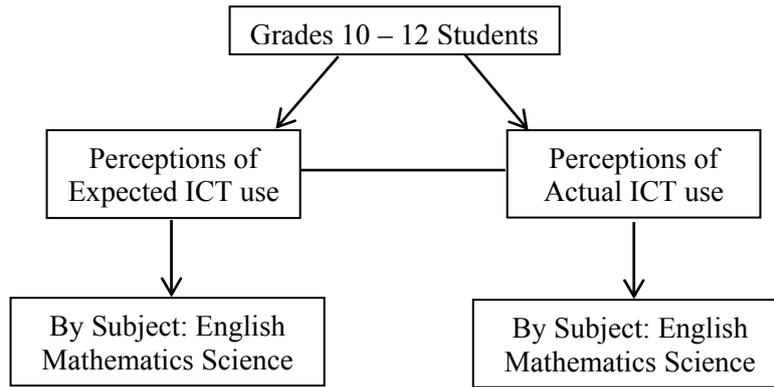
Figure 1: Conceptual Framework of The Study

Method

Population and Sample
The population of this study were all of the grade 10 – 12 students of Nawaminthrachinuthit Bodindecha School which consisted of 1048 students. The population was split into three grades. 350 students were from grade ten; 325 students were from grade eleven; and 373 students were from grade 12. The sample group were three classes from each grade level which consisted of 247 students.

Table 1: Population and Sample Size of The Study

Grade Level	Population	Sample
10	350	91
11	325	78
12	373	78
Total	1048	247

Instrument
The researcher developed the instrument himself. It is a questionnaire with four sections. The first and the third sections are identical and were used to determine the following three demographics: gender, grade level and program of study. The second section was designed to measure the level of upper secondary students' perceptions of expected of ICT use in classroom practices in English, Mathematics and Science classes. The fourth section was designed to measure the level of students' perceptions of actual ICT use in classroom practices in English, Mathematics and Science classes. Sections two and four are nearly identical. Section four modified the items so that they were relevant to the perceptions of actual ICT use.

Sections one and three of the questionnaire were designed to collect descriptive data. All items on the second and fourth sections of the questionnaire were created by the researcher and foundationally derived from the theories listed in the theoretical framework in chapter one. The Engagement Theory was used in this research as a theory that supported the use of ICT in the learning process. The following items were based on this theory: 2, 3, 5, 6, 7, 8, 12, 13, and 14. The Social Development Theory, which states that people learn through social interactions, was used in developing the following items of the questionnaire: 1, 4, 6, 8, 9, 10, 11, 13, and 15. The following table (Table 2) correlates each item with the appropriate theory.

Table 2: Theoretical Support for Items on Sections 2 and 4 of the Questionnaire

	Social Development Theory	Engagement Theory
Number of item that each theory supports from section 2 and 4 of the questionnaire	1, 4, 8, 9, 10, 11, 15	2, 3, 5, 6, 7, 8, 12, 13, 14

The researcher based the items of the questionnaire on the ICT available to the school with the exception of smartphones, which are a common accessory for all students in the school.

The second and fourth section used a six-point Likert scale as its means of measurement. The researcher used a six-point Likert scale to encourage students to answer that they either agree or disagree to each of the items. Table 3 provides the point values attributed with each choice of response on the questionnaire.

Table 3: Six-Point Likert Scale

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1 point	2 points	3 points	4 points	5 points	6 points

Table 4 shows how the researcher interpreted the results of section two and section four of the questionnaire.

Table 4: Interpretation Scale

Very Low	Low	Moderate	High	Very High
1.00 – 1.20	1.21 – 2.00	2.01 – 3.60	3.61 – 4.80	4.81 – 6.00

Procedure
The researcher distributed and collected all of the questionnaires himself. The first and second sections were administered at the beginning of the first semester in the 2015 – 2016 academic school year. The third and fourth sections of the questionnaire were administered after midterm examinations during the first semester of the 2015 – 2016 academic school year. All of the questionnaires that

were distributed were valid and returned to the researcher immediately after completion.

Findings

Three classes from each grade level participated in the survey. Each class represented one of the programs of study for each particular level. The following tables illustrate the descriptive statistics of the questionnaire.

Table 5: Program of Study of the Respondents

Program of Study	Number	Percentage
Foreign Language	81	32
Mathematics	96	31.2
Science & Mathematics	70	36.8
Total	247	100

As can be seen in table 5, all students belonged to one of three programs: 70 students from the Science and Mathematics Program; 81 from the Foreign Language Program; and 96 from the Mathematics Program.

Table 6: Gender of the Respondents

Gender	Number	Percentage
Male	106	42.9
Female	141	57.1
Total	247	100

As can be seen in table 6, of the 247 students in the sample group, 106 were male and 141 were female.

Table 7: Mean and Standard Deviation of Students' Perceptions of Expected ICT Use for English, Math and Science (n = 247)

Subject	Mean	Standard Deviation	Interpretation
English	4.93	.66	Very High
Math	4.53	.86	High
Science	4.89	.68	Very High
Total	4.78	.69	High

Table 7 illustrates the level of upper secondary students' perceptions of expected ICT use in classroom practices. The mean of English was 4.93 and can be interpreted as a very high level of expected ICT use. The mean of Mathematics was 4.53 and can be interpreted as a high level of expected ICT use. The mean of Science was 4.89 and can be interpreted as a very high level of expected ICT use. The total of these subjects combined has a mean of 4.78. Therefore, the level of upper secondary students' perceptions of expected ICT use in classroom practices was high.

Table 8: Mean and Standard Deviation of Students' Perceptions of Actual ICT Use for English, Mathematics and Science

Class	Mean	Standard Deviation	Interpretation
English	3.92	1.05	High
Mathematics	3.29	1.27	Moderate
Science	4.01	1.01	High
Total	3.71	1.00	High

Table 8 illustrates the level of upper secondary students' perceptions of actual ICT use in classroom practices. The mean of English was 3.92 and can be interpreted as a high level of actual ICT use. The mean of Mathematics was 3.29 and can be interpreted as a moderate level of actual ICT use. The mean of Science was 4.01 and can be interpreted as a high level of actual ICT use. The total of these subjects combined has a mean of 3.71. Therefore, the level of upper secondary students' perceptions of actual ICT use in classroom practices was high.

Table 9: Paired Samples t-test (Two-tailed) of Students' Perceptions of Expected ICT Use and Actual ICT Use in Classroom Practices

	Mean	Standard Deviation	t	Sig. (2 – tailed)
Expected ICT Use	4.78	.69	12.857	.000
Actual ICT Use	3.71	1.00		

As can be seen in Table 9, the mean of the second section of the questionnaire, which measured students' perceptions of expected ICT use, was higher than the mean of the fourth section of the questionnaire, which measured students' perceptions of actual ICT use. Therefore, the results indicated that student's perceptions of expected ICT use are higher than their perceptions of actual ICT use. Furthermore, as Sig. (2 tailed) was .000, which is less than .05, the comparison can be interpreted as significant.

Table 10: Paired Samples t-test (Two-tailed) of Students' Perceptions of Expected ICT Use and Actual ICT Use According to Subject in Classroom Practices.

	Mean	Standard Deviation	t	Sig. (2 – tailed)
Expected ICT Use in English Classes	4.93	.67	12.81	.000
Actual ICT Use in English Classes	3.88	1.04		
Expected ICT Use in Math Classes	4.52	.87	12.05	.000
Actual ICT Use in Math Classes	3.26	1.25		
Expected ICT Use in Science Classes	4.89	.69	11.20	.000
Actual ICT Use in Science Classes	3.97	.99		

As can be seen in Table 10, the mean of the expected ICT use in all three classes (English, Mathematics and Science) were higher than the mean of the actual ICT use in these classes. Therefore, students' perceptions of expected ICT use were

higher than their perceptions of actual ICT use in English, Mathematics and Science classroom practices. Furthermore, being that Sig. (2 tailed) were .000 in all tests, which is less than .05, the comparison can be interpreted as significant.

Discussion
Examining the results of this study shows that the level of upper secondary students' perceptions of expected ICT use is significantly higher than the level of their perceptions of actual ICT use in classroom practices. However, when interpreted using the five-point interpretation scale listed in chapter three, both the levels are interpreted as high. While the level of students' perceptions of expected ICT use was not met, maintaining a high level of perceived actual ICT use in classroom practices shows that teachers are able to effectively implement ICT use into their pedagogy. This argues against Livingstone's (2012) claim that teachers do not know how to use ICT when teaching. Moreover, these results suggest that the teachers of these classes have received a sufficient amount of training to use ICT when teaching, which disputes other researchers' suggestions (Raboca & Carbunarean, 2014).

A more detailed analysis shows the three different subjects that were examined in this research were English, Mathematics, and Science. The level of upper secondary students' perceptions of expected ICT use was high in Mathematics and very high in both English and Science. Their perceptions of actual ICT use is moderate for Mathematics and high for English and Science. While the results are consistent for all three subjects, students' perceptions of Mathematics are significantly lower than the other subjects. A possible explanation for this is that students perceive Mathematics as a subject that is less conducive to teaching approaches that use ICT.

The results of this research focus on the students' perceptions and therefore directly relate to motivation. As can be seen, the level of upper secondary students' perceptions of expected ICT use is significantly higher than their perceptions of actual ICT use. When students have higher expectations than what they perceive actually happens in the classroom their motivation lowers. Motivation is an essential element of student learning (Santrock, 2011). Regardless of extrinsic or intrinsic motivation, the more motivated students are to learn, the greater the probability they will learn. Keeping that in mind, intrinsic motivation is harder to achieve in students at the upper secondary level, and that is the type of motivation that is believed increases when using ICT in classroom practices (Santrock, 2011). Therefore, it may be inferred that not meeting upper secondary students' perceptions of expected ICT use lowers their intrinsic motivation.

This research only examined the perceptions of students and not the perceptions of teachers. Because of this, the reasons upper secondary students' perceptions of expected ICT use were not met can only be speculated. One possible reason is that the upper secondary students did not consider the amount of time needed to properly implement changes to the curriculum. More likely, they are not aware of the curriculum changes or that educational use of ICT in the government schools in Thailand is relatively recent. As can be seen in the results, the level of upper secondary students' perceptions of expected ICT use in classroom practices

was high. The Basic Core Curriculum began to implement the reforms of ICT on a national level only seven years prior to this research (Thai Ministry of Education, 2008). When structural changes are implemented there should be an amount of time that is expected for troubleshooting. Perhaps more time must pass before teachers use ICT more frequently when teaching.

A contrasting speculation could be drawn that teachers do not perceive ICT as necessary as students do. ICTs are tools that teachers use to engage students but they are not the only tools in a trained teachers' arsenal. The majority of current teachers in Thailand did not have the same digital resources that students have when they were students themselves. As this is a new aspect of teaching that has the potential to revolutionize the educational system, a certain amount of trial and error time can be expected. As teachers become more familiar and trusting of ICTs the frequency of using them in classroom practices may increase.

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DEVELOPMENT OF AN INSTRUCTIONAL DESIGN MODEL TO ENHANCE UNDERGRADUATE STUDENTS' PUBLIC CONSCIOUSNESS BY USING SERVICE LEARNING PROJECTS WITH COMPUTER-SUPPORTED COLLABORATIVE LEARNING*

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Abstract: This study was the research and development of instructional design model to enhance undergraduate students' public consciousness by using service learning projects with computer-supported collaborative learning. Data analysis was done to identify its necessity. Data about instructional circumstance to enhance public consciousness was collected from 40 instructors and 400 undergraduate students, and the analysis was reviewed and certified by 15 experts. Research findings could be concluded that there were 7 elements of instructional design model namely (1) purpose, (2) subject content, (3) roles of instructor/student, (4) service learning project, (5) instruction media, (6) computer-supported collaborative learning, (7) evaluation tools; and six major steps included (1) analysis, (2) design, (3) development, (4) implementation, (5) evaluation, and (6) monitoring.

Introduction
One of the main problems of Thai society in globalization era was the influx of western culture that had changed traditional Thai society from a generous society into a consumerism. People helped each other less, did not respect the right of others and lacked of public interest awareness. This was especially true among youths and students (Office of the Higher Education Commission, 2008). The impact of such problem caused different higher education institutions to plan and develop instructional strategies to promote significant desired characteristics including public consciousness and social responsibility by using different instructional models for the 21st century. For example, project-based learning allowed students to do a project suitable for their interest with process step of design, implementation and presentation, so students could work in team. Project-based learning was also essential for problem solving in the real situation (Moursund, 1998). Service learning focused on and combined academic content and service learning activities. It emphasized on critical thinking, opinion rendering, and personal and social responsibility so that students would acquire learning skill and social responsibility (American Association of Community Colleges, 2012). To develop an instructional design model, instructor had to integrate project-based learning with service learning as a service learning project.

Moreover, information and communication technology (ICT) in the 21st century had been developed rapidly so there had been an effort to apply its pros and cons to support teaching and learning among students, students and instructor, and students and the learning source by using computer-supported collaborative learning (CSCL) through a synchronous and asynchronous tools (Kligyte and Leinonen, 2001). In addition, other applications such as google apps for education, facebook

and line application were also applied for both synchronous and asynchronous support.

It was in accordance with Thailand Qualifications Framework for Higher Education (TQF:HEd) of the Commission on Higher Education of who defined the qualification of a bachelor. Bachelor or graduate was a person who was knowledgeable and responsible, had wisdom and skill, good communication and interpersonal skill, the ability to use information and technology, moral and ethics. The definition complied to the Revised National Education Plan (BE 2552 - 2559) which aimed to develop quality Thai people as a complete human in term of physical, mental, and intellectual maturity, be knowledgeable and ethical, can live with others happily, cooperate with creation of balance and secure society. The secure society referred to the society with 3 balances namely 1) quality society, 2) society of wisdom and learning, and 3) society of solidarity and generosity towards each other (Office of the Education Council, 2010). It was imperative that we study the instructional design model to enhance undergraduate students' public consciousness by using service learning projects with computer-supported collaborative learning and find out what elements and stages would promote different skills of students including thinking, working, problem solving and socializing skills so they would become quality and good citizens of the country.

Objectives

The objective of this study was to identify requirement to develop an instructional design model to enhance undergraduate students' public consciousness by using service learning projects with computer-supported collaborative learning which could be used as a guideline for effective higher degree class management.

Literature Review

Further to our literature review about instructional design to enhance public consciousness of learners including different concepts like instructional design, computer-support collaborative learning, project-based learning and service learning, we had found related studies as below.

Buch and Harden (2011) had studied about the influence of service learning project and learners' awareness towards homeless problem and people's attitude. They had investigated service learning design as a part of the training course and citizenship. 114 participants had participated with the study. The course included in class learning and experience learning of service for the poor and the homeless. Participants discussed and reported subject matter and process of experience sharing with other learners through multimedia. Findings revealed that learners had acquired direct experience by doing service learning project, been more aware of the homeless, dismissed their negative attitude, and obtained more positive attitude to be good citizen of the society.

Meyers (2009) had studied about service learning to change people and the society as the supportive instructional tool about social justice. Service learning had been applied to develop person and social bond during spring semester in 2005-2007 by having students to do 6 hour of public service per week in order to promote people participations including assistance for the family with violence problem,

tutorial class and care for children without parents. Learners were assigned to document their public service experience and complete other assignments in the semester. Finding showed that service learning could enhance learner's social awareness because this learning method allowed undergraduate students to access and interact with different people in the community. It was considered a precious occasion to work with underprivileged people in the community and a good practice to enhance students' experience that reflected their attitude and value.

Wilson (2011) had investigated about service learning of undergraduate students in the USA. His study aimed to evaluate how service learning influenced self-development. The study explored how different was the sympathy of students who participated and did not participate with service learning and found that students who participated with service learning showed their sympathy differently from students who did not participate with service learning statistically and significantly at .05. The former group of students showed more sympathy. In addition, it was found that service learning could provide a chance for learners to interact with other learners well.

Conceptual Framework

This conceptual framework was based on fundamental theory and design including instructional design, computer-supported collaborative learning, project-based learning, and service learning as shown in Figure 1.

(See Figure 1 on the next page)

Methodology

Procedure
This article discussed about data of an instructional design model to enhance undergraduate students' public consciousness by using service learning project with computer-supported collaborative learning as two phases including (1) the study of instructors and students' opinion towards instruction, and (2) the study of experts' opinion towards instructional design model. Participants and applied tools in the research were discussed as the following.

Participants
Phase 1: 40 instructors and 400 students were randomly recruited by multistage random sampling method from different universities throughout the country and were divided into 2 groups of 3 universities or total 6 universities as the following. (1) public universities including Thammasat University, Silpakorn University, and Burapha University; (2) Rajabhat universities including Sisaket Rajabhat University, Chandrakasem Rajabhat University, and Nakhon Pathom Rajabhat University.

Phase 2: Total 15 experts including 3 experts specialized in instructional design model, 3 experts specialized in computer-support collaborative learning, 9 experts specialized in service learning project had participated with the study.

Instrumentation
In phase 1, we applied semi-structured interview with instructors to investigate different circumstances of the instruction including its element, instructional design process, its problem and barrier and the application of information and communication technology to support the instruction, we applied questionnaire with undergraduate students to collect their opinion about instructional circumstances including its element, instruction design model process, its problem and barrier and the application of information and communication technology to support instruction, and it consisted of check list and open-ended questions. The purpose of this phase was to study the opinion towards instruction circumstances to enhance undergraduate students' public consciousness.

In phase 2, we applied questionnaire with experts to study their opinion towards instructional design model to enhance undergraduate students' public consciousness by using service learning projects with computer-supported collaborative learning. Questionnaire for expert was applied to collect their opinion to evaluate element correspondence and step of instructional model. Three-point scale questions in the questionnaire included sure of its availability (mark 1), not sure of its availability (mark 0) and sure of its absence (mark -1) based on index of item-objective congruence (IOC), and IOC more than 0.50 was considered acceptable.

Results

Phase 1: Finding from phase 1 showed opinion of instructors and undergraduate students towards instruction circumstance to enhance undergraduate students' public consciousness.

Finding from Instructors' Opinion
Instructional model design to enhance undergraduate students' public consciousness should be proceeded according to the following steps.

1. Analysis, Instructors should done need analysis using different methods including questionnaire, interview with students and concerned parties such as people in the community, conduct instructional analysis to study instructional method, the application of instruction, instructing material, class management, entry behavior and learner characteristics. Instructors should observe learners' characteristics and body of normal and handicapped students. They should analyze student's social, culture and economic background by observing or allowing the students to tell about their experiences. Instructors should have students do pretest at the early classes in order to check student's basic knowledge, allow student to learn about program and course specifications so that students could pick up proper subject matter, and instructors could prioritize subject content, determine class period and evaluation, and do community analysis based on current problem and need obtained from the observation, survey and sincere discussion with people in the community.

2. Design, Instructional design involved with learning objective determination based on learners' need and interest, public interest, desired behavior of the learner after class, behavioral condition and minimum criterion of the expressed behaviors. Project duration was determined in line with the class number and week in the semester. It was usually 8-16 weeks period depended on circumstances of different courses in a week. Learners should be allowed to observe need and problem of people in the community by using question, observation, home visit, discussion or data analysis. Service learning project had to be done concretely, presented and publicized accordingly. During learning assessment process, students should be allowed to participate with the determination of assessment guideline and role determination of the instructor. Instructors were subject to introduce learning, encourage and motivate learners' interest, provide proper suggestions and activities to enhance learners' knowledge and experience, facilitate learners if necessary, teach moral and ethics consistently, review and follow up student's learning, properly and positively reinforce learners and evaluate their learning. In addition, instructors should be good role model, be sympathy, speak politely, give respect to students and be generous. These were important attributes of instructors to create successful instruction as desired.

3. Development, Instructors had to select instructing material in regular class and electronic media which complied with subject content and instructional activity. This could be done by choosing different self-developed media, instructing material produced by production or development department or application software that were suitable for the class or computer-supported collaborative learning. Instructors were subject to apply technology to create a lively and supportive instruction so that learners could share their learning with their group members and learn from their

instructors synchronously through chat and video chat and asynchronously through web board, email, blog and synchronously and asynchronously on cloud system including google apps for education, facebook and line.

4. Implementation, Instructors could apply lecture, questioning, verbal suggestion, example raising or case study, practice thinking, discussion, brain storming, role playing, and conclusion to create collaborative learning among instructors and students.

5. Evaluation, Instructional design evaluation consisted of 2 important parts including project evaluation based on the work piece, innovation of the project, project report, exhibition, website or online social network, project process, achievement of the community or target group. Project achievement could be evaluated by its work piece, innovation, evaluating form for the exhibition, website or online social network, project learning evaluation form, interview with concerned parties; and learner evaluation. It was measured and evaluated by public consciousness measurement, public consciousness behavior observation, interview with concerned parties, and feedback record or blog.

6. Monitoring, Instructional design model was monitored by direct interview with students, community member or target group and concerned parties such as friends. Duration of the monitoring should comply to characteristics and circumstances of different subject learning.

Finding from The Study of Undergraduate Students' Opinion (See Table 1 and Table 2)

Table 1: General Data of Undergraduate Students

General Data of Undergraduate Students	Number	Percentage
1. Gender		
Male	123	30.8
Female	277	69.2
2. Year of education		
1	41	10.3
2	119	29.7
3	186	46.5
4	54	13.5

Table 2: Opinion about Instructional Circumstance to Enhance Public Consciousness

Opinion Particular	Number	Percentage
1. Project Title Determination		
Determination of learners' need and interest	267	66.8
Determination of community's need and interest	243	60.8
Determination of concerned parties' need and interest	205	51.3
2. Learners' Role Determination		
Choose project title	220	55.0
Write outline of the project	130	32.5
Implement the project	374	93.5
Report progress of the report	118	29.5

Table 2: Opinion about Instructional Circumstance to Enhance Public Consciousness

Opinion Particular	Number	Percentage
Write project report	150	37.5
Present the project	209	52.3
Share knowledge obtained from the project	250	62.5
Record learning obtained from the project	144	36.0
Evaluate the project	150	37.5
Publish and do public relation of the project	234	58.5
3. <u>Learner Grouping</u>		
Group students based on their learning achievement from high to low	80	20.0
Group students based on their proficiency from high to low	72	18.0
Group students based on the same need and interest	284	71.0
4. <u>Application of Computer-supported Collaborative Learning</u>		
4.1 Synchronous tools	278	69.5
Chat	223	55.8
Video Chat	124	31.0
4.2 Asynchronous tools	194	48.5
Web Board	89	22.3
E-mail	135	33.8
Blog	51	12.8
4.3 The Application of Synchronous and Asynchronous Supportive Tools On cloud system	359	89.8
Google Apps for Education	293	73.3
Facebook	285	71.3
Line	214	53.0
5. <u>Features of Computer-supported Collaborative Learning Tools</u>		
To support conversation/knowledge sharing during project implementation.	310	77.5
To support report of project advancement	166	41.5
To support project presentation	203	50.8
To support writing/recording learning from the project	169	42.3
To support project publishing/public relation	242	60.5
6. <u>The Evaluation of Service Learning Project</u>		
Work piece/innovation from the project	203	50.8
Project report	210	52.5
Exhibition	222	55.5
Website/online social network	104	26.0
Project process	172	43.0
Achievement of the community / target group	238	59.5
Satisfaction of the community / target group	241	60.3
7. <u>The Implementation of Learning Activity</u>		
Continuous service learning activity	323	80.8
Continuous knowledge sharing forum	264	66.0

Table 2: Opinion about Instructional Circumstance to Enhance Public Consciousness

Opinion Particular	Number	Percentage
Website/online social network for public relation of the activity and communicate with members	212	53.0
Creation of new community to participate with service learning activity	178	44.5

Phase 2: Finding from experts' opinion towards instructional design model to enhance public consciousness of undergraduate students using public service learning with computer-supported collaborative learning.

The researcher had applied data from the first phase including data from the interview with instructors and undergraduate students to develop question items in the questionnaire asking about instructional design model. The questionnaire was reviewed its elements and steps of instructional design model by 15 experts specialized in instructional model design, instruction management using service learning project and instruction management using computer-supported collaborative learning. We concluded from the finding that the instructional design model could enhance undergraduate students' public consciousness by using service learning with computer-supported collaborative learning and came up with elements and steps as showed in figure 2 with the following detail.
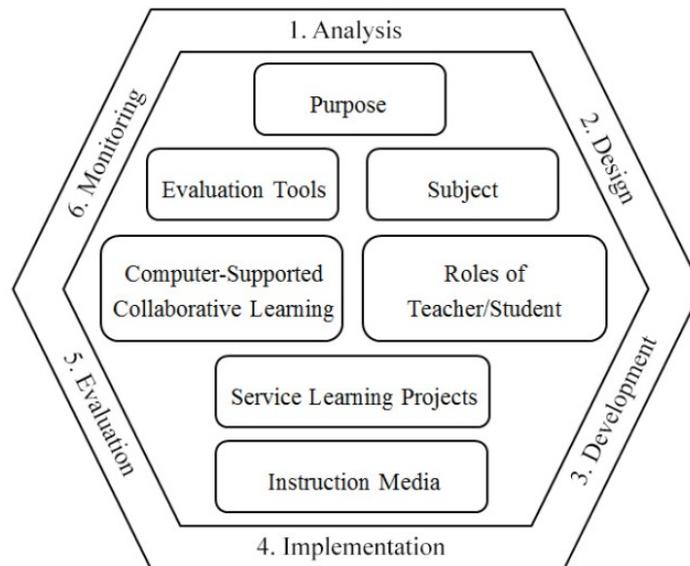
Figure 2: Instructional Design Model

Component of Instructional Design Consisted of Seven Components As Following.
1. Purpose was the applied goal to plan and develop instructional design that the researcher should determine its behavioral objective or particular objective so that

students could follow accordingly based on shared need and interest among students, the community, target group and concerned parties.

2. The subject content should be consistent with subject matter of the course by setting outline of curriculum and allow students to enroll accordingly to other circumstances such as public service concept, problems and needs of the community/target, the level of knowledge of the students, purposes, instructional activities, and teaching period.

3. The role of instructors/students, instructors had to act as good role models for students and perform different duties including analyzing problems and needs of the community and students, creating community network for smooth project coordination, encouraging students' awareness, and monitoring and evaluating students' learning performance. Meanwhile, students' role was to engage with instructional activities using public service project. The survey result revealed that different roles of the students included practice (93.5%), acquire and share knowledge (62.5%), publish and make public relation for their project (58.5%), choose project topic (55%), and present their project (52.3%).

4. Service learning project was the process of learning by doing until the learners acquired result or answer, so they had acquired real knowledge based on their individual potential, strengthened their moral and ethics and came up with physical, mental and social balance to prepare them as responsible citizens of the society. The survey showed that 97% of the students agreed with collaborative project in the community, 70.3% of them had helped each other with the project in their class, and 51.3% of them had helped each other with online project.

5. Instruction media was the tool to support and encourage teaching and learning to help students to learn quickly. Instruction media choosing and application should be consistent with the subject matter, teaching activity, the ability of instructors, knowledge level and need of students, as well as some specific characteristics such as students with disability.

6. Computer-supported collaborative learning was the tool to support and encourage collaborative learning in various ways. For example, learning supported group discussion, counseling by the instructor, knowledge sharing discussion, transmitting and sharing data, and progress follow up, presenting the project, documenting students' learning, publicizing and evaluating the project. The learning also allowed students to learn new technology increasingly.   Survey showed 89.8% of the students wanted to use both synchronous and asynchronous tools including google apps (73.3%), Facebook (71.3%) and line (53%). They were synchronous tools 69.5% and asynchronous tools 48.5%.

7. Evaluating tools were applied to measure and evaluate instructional achievement including students' achievement evaluating tool and project evaluating tool. Besides, online evaluating tool could facilitate the evaluation and feedback provision for the students rapidly. These tools could also monitor the students' learning performance.

Procedure of Instructional Design Consists of Six Main Stages and 22 Sub-Stages As Follows.

1. The analysis consisted of five sub-stages including (1.1) Need analysis which was to identify problem and barrier, and the need to arrange instruction for a subject matter. Analysis derived from data collected from questionnaire and interview with concerned parties. (1.2) Conduct Instructional Analysis was the analysis of students and instructors' working performance. (1.3) Entry behaviours and learner characteristics was the collection of data about social, cultural and economic aspects, expectation, interest, teaching and learning motivation, the ability to use interview and test technologies. (1.4) Content/Task analysis was the analysis of instruction's nature by studying various elements including curriculum, course description, and detail of subject matter in the course. (1.5) Community analysis was done to collect community/target data regarding reachable and understandable problems and needs along with other circumstances such as interest, taste, and other problems related to the observation and collaborative learning.

2. Design procedure consisted of 8 sub-stages including (2.1) Determination of instruction objectives by writing down the objectives that learners could practice and instructors could evaluate or observe. (2.2) Determination of instructional format and attribute. This was done by proportionating theory, practice, normal and online class management, and writing down instruction detail process. (2.3) Determination of subject content and its presentation was based on its outlining subject content so that students could choose suitably to their interest. Subject content was subject to be taught appropriately step by step and suitably for the course period. (2.4) Determination of instructional activities including lecture, example, case study, discussion, and describing activity process in detail were subject to be suitable for their timeframe. (2.5) Determine the instructional summary by using collaborative learning was determined by instructors and students. (2.6) Determination of the application of instruction media in regular classes and electronic instruction media along with writing down detail of each instruction step was done properly and suitably to its time frame. (2.7) Determination of computer-supported collaborative learning by using synchronous and asynchronous tools or both, and was written down with their details. (2.8) Determination of measurement and evaluation included 1. project evaluation based on different aspects including work piece/invention, project report, website/online social network, project procedure, achievement of the community/target; and 2. Evaluation of learners' public consciousness, public consciousness behaviour, testing, interview with concerned parties and blog writing.

3. Development consisted of three sub-stages as (3.1) Instructional media production and development which consisted of instruction media for regular and online classes. (3.2) Production and development of computer-supported collaborative learning included synchronous tools, asynchronous tools, and synchronous and asynchronous tools. (3.3) Production and development of learner evaluating tool included public consciousness evaluation form, public consciousness behavioural evaluation form, test, interview with concerned parties, blog, online social networking, and project evaluating tools namely work piece/invention evaluation form, project evaluation form, exhibition evaluation form, project learning observation form, and interview with concerned parties.

4. Instruction implementation consisted of two sub-stages as (4.1) Instruction in the real environment using various instructional activities such as lecture, questioning, case study, discussion, and brainstorming about service learning project. Process to implement the instruction included 1. Encouraging and creating students' awareness by asking challenging questions, providing samples of problem/interesting social issues regarding the lack of public consciousness using video clip. 2. Studying problem and selecting project topic by determining need and interest of students, community/target, brainstorming, and discussing to select project topic. 3. Planning the project by assigning student groups according to their need and interest, determining the roles of instructors and appropriately proportionating theory and practice learning. 4. Implementing the project by encouraging students to practice according to the plan and summarizing collaborative learning among students and instructors. 5. Presenting the project. Students could exhibited their project to the public and render their comments and critics against the project. (4.2) Application of the produced instruction media was to implement computer-supported collaborative learning media and evaluating tools with different process of instruction.

5. Evaluation consisted of two sub-stages including (5.1) Project evaluation of work piece/invention, project report, exhibition, website, online social network, project procedure, achievement and satisfaction of the community/target. (5.2) Student achievement was evaluated from their public consciousness, public consciousness behaviour, testing, and interview with concerned parties, blog updating, and online social network.

6. Monitoring consisted of two sub-stages including (6.1) Further learning activity namely continuous public service activity, continuous learning sharing, creating website/online social network for public relation and communication, creating new community/network to proceed public service activity, (6.2) Follow up students' learning by using direct interview with the students, community/target, concerned parties, setting time frame to monitor and evaluating students' learning properly and effectively.

Discussion

Objective based discussion was to define need and necessity to develop instructional design model, and it consisted of instructional design elements and process as the following.

1. An instructional design model had unique characteristic because there was a framework for its design focusing on creating public consciousness by using service learning project with computer-supported collaborative learning for undergraduate students particularly. It applied the concept of instruction implementation including instructional design, computer-supported collaborative learning, project-based learning and service learning. The concept of public consciousness was consistent with the study by Meyers (2009) who studied about public service learning to change people and the society. The study results showed how service learning could help students develop more self-awareness and self-esteem. In addition, it could represent social changes because service learning could generate meaningful interaction in the society and promote students to experience their attitude and

value. The study was consistent with the study by Wilson (2011) about service learning and sympathy development of students. The study aimed to assess how service learning experience influenced self-development of students attended and did not attend service learning. His finding revealed that students who attended service learning showed more sympathy than the students who did not attend service learning. In addition, the former students could apply their learning with self-development because it supported students to interact with other students and could reflect their self-awareness.

2. The instruction process focused on participation of concerned parties, instructors, students, and people in the community/target group. So the instructors were subject to have enough public consciousness and acted as a good role model. They had to explain definitions, encourage student's interest leading to knowledge sharing and opinion rendering, apply proper instruction tool to generate creative interaction among students and instructors. It was consistent with community learners bonding online learning strategy by Nasongkhla (2007) who pointed out that there were 3 stages of participation including (1) establishment phase that included joint goal setting by designing a challenging, meaningful, and practical curriculum for learners. Its secondary goal was to support need of all members, determining implementation plan for experience sharing in accordance with the set goal, and creating collaborating skills in the community along with the rules of coexistence. (2) Strengthening the community phase consisted of creating the community's identity, building a cycle of work that encouraged continuous participation, communicating with students, and continuous adding new contents to the community. Having good participation as the foundation, instructors had to appropriately communicate and apply presentation tools so students played different roles in their team and the community. Instructors should assign proper topic so that students could solve different problems and practice by their own and they were deserved to get reward based on their cooperation. (3) Maintaining and retention phase consisted of respectful assembly that allowed students to share knowledge and opinion about the similarity and difference of various topics. The creation of collaboration required diverse perspectives to stimulate exchange of experience and point of view. Project development could be furthered its advantage for other learners as well. When students had practiced certain skill, they would be able to solve problem and coach their peers using different skills when they changed their group. This was consistent with social presence concept by Jithkrikroun (2010) which influenced interaction in online learning. It could create students' motivation and inspiration, co-presence and the sense of engagement with the other. It was considered sense of co-existence though students did not live together. The higher social presence students had, the better interaction they had which was considered similar to face-to-face interaction.

3. Computer-supported collaborative learning was useful in different ways including to support conversation and instructors' counselling, discuss and share knowledge, transmit data, follow up students' progress, present data, record learning, publish and publicise the project, evaluate and monitor students' learning. Computer-supported learning could be applied with any subject pertaining to public consciousness. It should be applied to allow students to interact with members in

their group and instructor lively through synchronous and asynchronous tools. This was consistent with computer-supported collaborative learning concept developed by Talamo and Ligorio (2001) which divided the tools into two type's namely asynchronous tools which students could access it all the time without online the internet, and synchronous tools which were for students to contact and communicate with each other by going online at the same time. This concept was consistent with the study by Quek (2010) about the analysis of learners' participation and interaction in the online project learning environment using asynchronous media. The study found that learners had highly participated with the learning while instructors facilitated the process. In term of interaction among learners, it was found that most learners or 82.7% used online project to compare and share data, 3.7% of them meaningfully discussed and shared knowledge. This was consistent with the study of Guthrie and McCracken (2010) about virtual online service learning course to support different students' learning, discussion, experience sharing, and collaboration. The study found that learners were positively influenced by learning. Students were also enhanced and encouraged their wisdom, civic engagement, participation with the discussion and the ability to understand and gain self-awareness through the use of diverse media. This was consistent with the study by Jones (2010) on technology integrated with computer-supported collaborative learning. Its objective was to evaluate the effectiveness of blended instruction by using online social media to promote and support situation based experience learning. It allowed students to discuss their project in their group asynchronously. Finding revealed that students were happy and acquired precious skills. The application of supportive tool with collaborative learning enhanced students' collaboration, team working, attention, understanding and analysis, and the learning satisfied learners. In addition, computer-supported collaborative learning in the class was also successful in utilizing capacity or strength of communication and information and technology system, and it increased flexibility of the instruction.

Conclusion

When we considered instructional design model to enhance undergraduate students' public consciousness by using a service learning project using computer-supported collaborative learning in this research, we had found that it consisted of 7 elements, 6 stages and 22 sub-stages. Our suggestion for its application was to focus on project implementation process by practice with collaboration as critical parts. We could convey long-term social responsibility concept to students by encourage them to acquire public consciousness. Undergraduate students should be nurtured their self-awareness so that they could make benefit for others and the organization later on. Instructors, therefore, had to act as good role model in explaining and translating the meaning of public consciousness to their students. This depended on instructor's level of public consciousness and being role model as well. Instructors were subject to encourage students to acquire learning process no matter role they played in the group. Choosing computer-supported instruction media should be consistent with objective and attribute of different supportive instruction activity and instructors needed to concern about students' convenience. Learning evaluation

and project assessment was based on the whole picture including assessment of students' participation with the project which could generate students' awareness because public consciousness could happen though the project did not achieve its objective. Suggestion for future research included adding variety of evaluation namely self-evaluation and evaluation by group members. Its data analysis, therefore, would be applied as the guideline to develop more complete instruction design model to enhance undergraduate students' public consciousness by using service learning with computer-supported collaborative learning later on.

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A COMPARATIVE STUDY OF ATTITUDES TOWARD ENGLISH AS A FOREIGN LANGUAGE LEARNING BETWEEN UPPER SECONDARY STUDENTS IN SCIENCE-MATHEMATICS AND ARTS-LANGUAGE PROGRAMS AT THE DEMONSTRATION SCHOOL OF RAMKHAMHAENG UNIVERSITY, THAILAND

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Abstract: This study focused on three objectives. The first objective was to determine the level of upper secondary students' attitudes toward English as a foreign language learning in Science-Mathematics at the Demonstration School of Ramkhamhaeng University. The second objective was to determine the level of upper secondary students' attitudes toward English as a foreign language learning in Arts-Language at the Demonstration School of Ramkhamhaeng University. The third objective was to compare the students' attitude toward English as a foreign language learning between students in Science-Mathematics and Arts-Language programs. There were four hundred and thirty one upper secondary students at the Demonstration School of Ramkhamhaeng University participated in academic year 2015. The study used two groups of students that consist of Science-Mathematics and Arts-Language students. In conclusion, the findings indicated that Thai upper secondary students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University had positive attitudes toward English as a foreign language learning. The research result also reviewed that there was no significant difference between the students' attitudes toward English as a foreign language learning. The study concludes with recommendations for practice and for future research.

Keywords: Attitudes, English as a Foreign Language Learning.

Introduction

Thailand had very low English proficiency of EF EPI Score that was 45.35 out of 100 points. Comparison with some countries in ASEAN, Malaysia had very high proficiency of EF EPI Score that was 60.30 out of 100 points. Vietnam had moderate proficiency of EF EPI Score that was 53.81 out of 100 points (EF English

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Proficiency Index, 2015). While the approach of ASEAN community 2015, English language would not be just a subject which was studied and taught in the classroom, but also which was useful to apply in various places. It was noted that English was used by more nonnative English speakers such as in the expanding and outside circles. Everyone who is related should modify teaching and learning methods in line, especially for the examination. The multiple choice format for entrance examination almost had focused on grammar and comprehension and with little consideration to speaking and listening skills. However, memory strategy might not make the students had positive attitudes toward English as a foreign language learning. It might cause Thai students to delay behind their contemporaries in neighboring countries in the vacancy job market. (Choomthong, 2014).

From Thai basic education core curriculum, there are eight subjects as a standard. Foreign Languages is one of them and English is the major foreign language in Thailand. Therefore, Thai students in the secondary level must study English. Both Thai students in Science-Mathematics program and Arts-Language program must study English as a foreign language which is the main course. The role of English as a foreign language is important same many other developing countries. New knowledge and the development of the internet have been affected in a main transits business, education, science and technical conditions, all of which needs to high ability in English (Wiriyachitra, 2002). Especially, Thai students' attitudes toward English as a foreign language learning should be positive attitudes for ready to improve their English skills. Many jobs call for the applicants who are fluent in English as most business organizations aim at recruiting employees who have excellent language skills and are ready to efficiently perform their business. For this knowing English is a requirement (Pawapatcharaudom, 2007).

Actually, the many things around the world are changing such as economic, ideas, technology and education influences on most people around the world and Thailand is a developing country that is very strong in cultural tradition also. English is the foreign language and the working language for ASEAN and Thai students study English in primary and secondary schools or twelve years in total. The English proficiency scores were fairly low while compare to people in neighboring countries (EF English Proficiency Index, 2015). Besides, considering TOEFL test score, the international average score was 80 but Thai people's average score was 74 (Test and Score Data Summary for TOEFL iBT Tests, 2014). It was lower than international standard and it was a little higher than the average scores of Cambodia, Laos, Myanmar and Vietnam. Compare to Singapore, the Philippines, Malaysia and Indonesia, it was very much lower (Noom-Ura, 2013).

In the English classroom in Thailand, where Thai teachers teach English, it is inevitable to speak Thai with their students. By doing so, it may reduce students' anxiety. Still, the use of English should be maximized. This can be done by setting the curriculum where speaking and listening skills are focused on. It is understood that the aims of each course can form the language use in the classroom and the teachers' teaching methods (Choomthong, 2014). Moreover, the results from the English-proficiency test which is the Ordinary National Educational Test (O-NET) in Thailand, the students of primary schools in Thailand 2010 and 2011 with average scores of 31.75 and 20.99 out of 100 points sequentially. Over 900,000

students at the lower secondary-schools level gained average scores approximately 32.42, 26.05, and 16.19 out of 100 points sequentially in 2009 to 2011. The number of 350,000 students at upper-secondary schools level in 2009 to 2011 gained average scores between 30.68, 23.98, and 19.22 out of 100 points respectively (Noom-Ura, 2013). Therefore, Thai students have a low score in English subject.

Research Objectives

1. To determine the level of upper secondary students' attitudes toward English as a foreign language learning in Science-Mathematics program at the Demonstration School of Ramkhamhaeng University.

2. To determine the level of upper secondary students' attitudes toward English as a foreign language learning in Arts-Language program at the Demonstration School of Ramkhamhaeng University.

3. To compare the students' attitude toward English as a foreign language learning between students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University.

   3.1 To compare the students' attitude toward English as a foreign language learning between grade 10 students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University.

   3.2 To compare the students' attitude toward English as a foreign language learning between grade 11 students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University.

   3.3 To compare the students' attitude toward English as a foreign language learning between grade 12 students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University.

Literature Review

Uribe et al. (2013) had researched to which these attitudes in English as a foreign language learning gender and influence in English variables. However, they had also indicated to the pressure on the English as a foreign language learning as the critical factor. This factor had shown a high average all of correlation variables. Therefore, the pressure to learn English is the important factor for them to expose the motivation to learn a second language. It meant English as a foreign language learning is a key component for the integration in an area in which the use of Spanish is prohibited by law. Attitude is a hypothetical whose be constructed and represented an individual's like or dislike for the preference. Either attitudes were positive, or negative and neutral views called of attitude object. The relationship between integrative motivation and proficiency which was described that it was indispensable which made learners be response for their loves in languages. (Hosseini & Pourmandnia, 2013). Attitude could assist the students to express whether they like or dislike the things or surrounding. It had recognized that the inner moods and feelings of students have influenced on their perspectives and attitudes towards the target language (Choy & Troudi, 2006). Moreover, Gardner

(1985) explained attitudes as components of motivation in language learning and combination of effort and desire to understand the goal of learning the language and positive attitudes toward learning the language.

Conceptual Framework

This study compared two groups of upper secondary students in The Demonstration School of Ramkhamhaeng University. Students in Science-Mathematics and Arts-Language programs were considered in the study. In this study, the conceptual framework was designed as below.
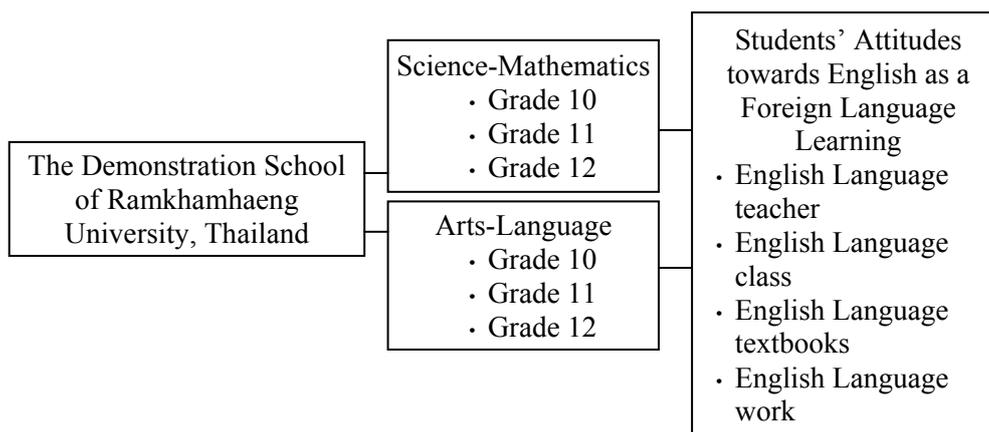
Figure 1: Conceptual Framework of The Study

Research Methodology

The sample of the research is all students of the upper secondary level from grade 10 to 12 in Science-Mathematics students and Arts-Language students at The Demonstration School of Ramkhamhaeng University, academic year 2015. Therefore, total numbers of samples for this study are 431 students.

For this research, there are two parts of the questionnaire. The second part is Students' Attitudes that consisted of English Language teacher, English Language class, English Language textbooks, and English Language work. There are five scales of this questionnaire and it was designed and was based mainly on models implemented by previous study. Therefore, the questionnaire was from the study at the University of Granada. The topic is "Attitudes of Mexican American Students towards Learning English as a Second Language in a Structured Immersion Program" (Uribe, Gutiérrez & Madrid, 2013). Certainly, this study will conduct data from Thai student in Thai school. Therefore, this questionnaire was translated by GM Translation Center, Grand Mercantile Ltd. which is the famous in translation service in professional knowledge. In this study, the researcher collected the data and a total number of 431 questionnaires were returned from 431 participants.

Findings

Research Objective 1: To determine the level of Thai upper secondary students' attitudes toward English as a foreign language learning in Science-Mathematics program at the Demonstration School of Ramkhamhaeng University.

Table 1: Mean and Standard Deviation for Science-Mathematics Students' Attitudes towards English Language Teacher (n=264)

No.	Items	M	S.D.	Interpretation
1	Way of teaching L2 subject matter	4.37	0.56	High
2	Behavior and attitude towards students	4.09	0.58	High
3	Class explanations	3.78	0.60	High
4	Class preparation	3.67	0.62	High
5	Favor students participation in class	3.65	0.71	High
6	Motivation to teach	3.81	0.79	High
7	Class materials	3.73	0.78	High
8	Motivates students	3.74	0.77	High
9	Class methodology	3.73	0.79	High
10	Assessment practices	3.72	0.88	High
11	Oral and written work balance	3.84	0.78	High
12	Audio visuals	3.77	0.77	High
13	Way students are treated	3.86	0.77	High
14	Variety of class work: pairs, group, individual	3.77	0.69	High
15	Discipline	3.78	0.71	High
16	Sociolinguistic and cultural emphasis	3.82	0.77	High
17	Games and free time activities	3.92	0.71	High
	Total	3.83	0.72	High

In general as, Table 1 shown, the mean scores of Science-Mathematics students' attitudes towards English language teacher were high, in the range of 3.51 – 4.50, it meant Science-Mathematics students' attitudes towards English language teacher were regarded as "high".

Table 2: Mean and Standard Deviation for Science-Mathematics Students' Attitudes towards English Language Class (n=264)

No.	Items	M	S.D.	Interpretation
18	L2 contents	4.16	0.60	High
19	Class materials	3.96	0.64	High
20	Teacher explanations	3.92	0.70	High
21	Teacher methodology	3.72	0.67	High
22	Students class participation rate	3.84	0.73	High
23	Written activities	3.14	0.95	Moderate
24	Oral activities	3.11	0.98	Moderate
25	Individual activities	3.17	1.04	Moderate

Table 2: Mean and Standard Deviation for Science-Mathematics Students' Attitudes towards English Language Class (n=264)

No.	Items	M	S.D.	Interpretation
26	Team activities	3.10	1.01	Moderate
27	Activities in pairs	3.14	0.94	Moderate
28	Teacher corrections	3.84	0.71	High
29	Discipline in class	3.82	0.78	High
30	Teacher assessment	3.87	0.74	High
31	Songs and games	3.83	0.73	High
32	Homework	3.12	1.01	Moderate
33	Class atmosphere	3.09	1.00	Moderate
34	Teacher pronunciation	3.82	0.79	High
35	Class pacing	3.81	0.74	High
36	Classmates	3.77	0.68	High
	Total	3.59	0.81	High

In general as, Table 2 shown, the mean scores of Science-Mathematics students' attitudes towards English language class were high, in the range of 3.51 – 4.50, it meant Science-Mathematics students' attitudes towards English language class were regarded as "high".

Table 3: Mean and Standard Deviation for Science-Mathematics Students' Attitudes towards English language textbooks (n=264)

No.	Items	M	S.D.	Interpretation
37	Textbook format	4.06	0.67	High
38	Textbook contents	3.87	0.65	High
39	Textbook organization and structure	3.84	0.73	High
40	Connection with other areas of the curriculum	3.74	0.73	High
41	Textbook variety	3.83	0.78	High
42	Songs and games	3.79	0.78	High
43	Review if previous content	3.69	0.76	High
44	Table, charts	3.67	0.81	High
45	Dialogs	3.00	1.02	Moderate
46	Conversation activities	3.13	1.02	Moderate
47	Writing activities	3.11	0.96	Moderate
48	Reading activities	3.16	1.00	Moderate
49	Listening	3.22	1.00	Moderate
50	Vocabularies activities	3.86	0.73	High
51	Phonetic activities	3.11	0.97	Moderate
52	Culture related activities	3.88	0.75	High
	Total	3.56	0.84	High

In general as, Table 3 shown, the mean scores of Science-Mathematics students' attitudes towards English language textbooks were high, in the range of

3.51 – 4.50, it meant Science-Mathematics students' attitudes towards English language textbooks were regarded as "high".

Table 4: Mean and Standard Deviation for Science-Mathematics Students' Attitudes towards English Language Work (n=264)

No.	Items	M	S.D.	Interpretation
53	Games and songs	3.96	0.68	High
54	Listening	3.96	0.65	High
55	Recording in video	3.81	0.76	High
56	Oral activities	3.18	1.01	Moderate
57	Vocabulary activities	3.08	0.98	Moderate
58	Team activities	3.12	0.97	Moderate
59	Individual activities	3.08	0.96	Moderate
60	Activities in pairs	3.22	1.00	Moderate
61	Dialogs	3.07	0.95	Moderate
62	Pronunciation activities	3.19	0.96	Moderate
63	Oral comprehension activities	3.16	1.00	Moderate
64	Activities that involve going out	3.21	0.95	Moderate
65	Grammar activities	3.06	0.99	Moderate
66	Writing activities	3.22	0.94	Moderate
67	Conversation activities	3.19	0.95	Moderate
68	Culture and civilization activities	3.84	0.7	High
69	Projects	3.84	0.72	High
70	Reading activities	3.87	0.71	High
71	Workbook activities	3.82	0.81	High
	Total	3.41	0.88	Moderate

In general as, Table 4 shown, the mean scores of Science-Mathematics students' attitudes towards English language work were moderate, in the range of 2.51 – 3.50, it meant Science-Mathematics students' attitudes towards English language work were regarded as "moderate".

Research Objective 2: To determine the level of Thai upper secondary students' attitudes toward English as a foreign language learning in Arts-Language program at the Demonstration School of Ramkhamhaeng University.

Table 5: Mean and Standard Deviation for Arts-Language Students' Attitudes towards English Language Teacher (n=167)

No.	Items	M	S.D.	Interpretation
1	Way of teaching L2 subject matter	4.4	0.56	High
2	Behavior and attitude towards students	4.13	0.58	High
3	Class explanations	3.82	0.64	High
4	Class preparation	3.73	0.64	High
5	Favor students participation in class	3.68	0.78	High
6	Motivation to teach	3.8	0.75	High
7	Class materials	3.79	0.78	High
8	Motivates students	3.78	0.77	High
9	Class methodology	3.74	0.83	High

Table 5: Mean and Standard Deviation for Arts-Language Students' Attitudes towards English Language Teacher (n=167)

No.	Items	M	S.D.	Interpretation
10	Assessment practices	3.76	0.88	High
11	Oral and written work balance	3.85	0.83	High
12	Audio visuals	3.72	0.70	High
13	Way students are treated	3.82	0.80	High
14	Variety of class work: pairs, group, individual	3.78	0.72	High
15	Discipline	3.66	0.71	High
16	Sociolinguistic and cultural emphasis	3.84	0.75	High
17	Games and free time activities	3.92	0.73	High
	Total	3.84	0.73	High

In general as, Table 5 shown, the mean scores of Arts-Language students' attitudes towards English language teacher were high, in the range of 3.51 – 4.50, according to the interpretation criteria, it meant Arts-Language students' attitudes towards English language teacher were regarded as "high".

Table 6: Mean and Standard Deviation for Arts-Language Students' Attitudes towards English Language Class (n=167)

No.	Items	M	S.D.	Interpretation
18	L2 contents	4.16	0.65	High
19	Class materials	3.94	0.62	High
20	Teacher explanations	3.87	0.71	High
21	Teacher methodology	3.77	0.71	High
22	Students class participation rate	3.86	0.68	High
23	Written activities	3.93	0.75	High
24	Oral activities	3.92	0.69	High
25	Individual activities	3.92	0.73	High
26	Team activities	3.91	0.75	High
27	Activities in pairs	3.83	0.69	High
28	Teacher corrections	3.89	0.69	High
29	Discipline in class	3.83	0.81	High
30	Teacher assessment	3.83	0.76	High
31	Songs and games	3.8	0.77	High
32	Homework	3.84	0.78	High
33	Class atmosphere	3.87	0.71	High
34	Teacher pronunciation	3.88	0.81	High
35	Class pacing	3.84	0.74	High
36	Classmates	3.84	0.71	High
	Total	3.88	0.72	High

In general as, Table 6 shown, the mean scores of Arts-Language students' attitudes towards English language class were high, in the range of 3.51 – 4.50,

according to the interpretation criteria, it meant Arts-Language students' attitudes towards English language class were regarded as "high".

Table 7: Mean and Standard Deviation for Arts-Language Students' Attitudes towards English Language Textbooks (n=167)

No.	Items	M	S.D.	Interpretation
37	Textbook format	4.03	0.69	High
38	Textbook contents	3.87	0.65	High
39	Textbook organization and structure	3.78	0.70	High
40	Connection with other areas of the curriculum	3.77	0.70	High
41	Textbook variety	3.81	0.77	High
42	Songs and games	3.82	0.79	High
43	Review if previous content	3.74	0.76	High
44	Table, charts	3.71	0.8	High
45	Dialogs	3.79	0.83	High
46	Conversation activities	3.89	0.79	High
47	Writing activities	3.77	0.70	High
48	Reading activities	3.71	0.65	High
49	Listening	3.86	0.70	High
50	Vocabularies activities	3.82	0.75	High
51	Phonetic activities	3.9	0.74	High
52	Culture related activities	3.86	0.74	High
	Total	3.82	0.74	High

In general as, Table 7 shown, the mean scores of Arts-Language students' attitudes towards English language textbooks were high, in the range of 3.51 – 4.50, according to the interpretation criteria, it meant Arts-Language students' attitudes towards English language textbooks were regarded as "high".

Table 8: Mean and Standard Deviation for Arts-Language Students' Attitudes towards English Language Work (n=167)

No.	Items	M	S.D.	Interpretation
53	Games and songs	3.98	0.75	High
54	Listening	4.01	0.69	High
55	Recording in video	3.82	0.76	High
56	Oral activities	3.83	0.74	High
57	Vocabulary activities	3.75	0.80	High
58	Team activities	3.78	0.77	High
59	Individual activities	3.75	0.78	High
60	Activities in pairs	3.80	0.75	High
61	Dialogs	3.74	0.79	High
62	Pronunciation activities	3.81	0.72	High
63	Oral comprehension activities	3.85	0.80	High
64	Activities that involve going out	3.81	0.77	High

Table 8: Mean and Standard Deviation for Arts-Language Students' Attitudes towards English Language Work (n=167)

No.	Items	M	S.D.	Interpretation
65	Grammar activities	3.35	0.95	High
66	Writing activities	3.79	0.81	High
67	Conversation activities	3.81	0.73	High
68	Culture and civilization activities	3.78	0.73	High
69	Projects	3.80	0.74	High
70	Reading activities	3.84	0.79	High
71	Workbook activities	3.80	0.82	High
	Total	3.80	0.77	High

In general as, Table 8 shown, the mean scores of Arts-Language students' attitudes towards English language work were high, in the range of 3.51 – 4.50, according to the interpretation criteria, it meant Arts-Language students' attitudes towards English language work were regarded as "high".

In general as, Table 9 presents, the total mean scores of Science-Mathematics and Arts-Language students' attitudes towards English as a foreign language learning as a foreign language were high, in the range of 3.51 – 4.50, it meant Science-Mathematics and Arts-Language students' attitudes towards English as a foreign language learning as a foreign language were regarded as "high".

Table 9: Comparison the Level of Science-Mathematics and Arts-Language Students' Attitudes towards English as a Foreign Language Learning

Attitudes	Science-Mathematics (n=264)			Arts-Language (n=167)		
	M	S.D.	Interpretation	M	S.D.	Interpretation
English language teacher	3.83	0.72	High	3.84	0.73	High
English language Class	3.59	0.81	High	3.88	0.72	High
English language textbooks	3.56	0.84	High	3.82	0.74	High
English language work	3.41	0.88	Moderate	3.80	0.77	High
Total	3.60	0.81	High	3.83	0.74	High

Research Objective 3: To compared the students' attitude toward English as a foreign language learning between students in Science-Mathematics and Arts-Language programs at the Demonstration of Ramkhamhaeng University.

Table 10: Grade 10 Students' Attitudes Comparison between Science-Mathematics and Arts-Language Programs

Grade 10	Mean Score	t-test for Equality of Means		
		t	df	Sig. (2-tailed)
Science-Mathematics	3.78	-1.578	176	.235
Arts-Language	3.95			

In order to test the research hypothesis, grade 10 students' attitudes of students in Science-Mathematics and Arts-Language programs based on sum scores were calculated and compared by independent sample t-test. As Table 10 shown, since the probability significant was .235, which was bigger than .05, the research hypothesis was rejected and thus meant "There is no significant difference between grade 10 students in Science-Mathematics and students in Arts-Language in their attitudes toward English as a foreign language learning."

Table 11: Grade 11 Students' Attitudes Comparison between Science-Mathematics and Arts-Language Programs

| Grade 11 | Mean Score | t-test for Equality of Means | | |
		t	df	Sig. (2-tailed)
Science-Mathematics	3.55	-1.337	114	.331
Arts-Language	3.76			

In order to test the research hypothesis, grade 11 students' attitudes of students in Science-Mathematics and Arts-Language programs based on sum scores were calculated and compared by independent sample t-test. As Table 11 shown, since the probability significant was .331, which was bigger than .05, the research hypothesis was rejected and thus meant "There is no significant difference between grade 11 students in Science-Mathematics and students in Arts-Language in their attitudes toward English as a foreign language learning."

Table 12: Grade 12 Students' Attitudes Comparison between Science-Mathematics and Arts-Language Programs

| Grade 12 | Mean Score | t-test for Equality of Means | | |
		t	df	Sig. (2-tailed)
Science-Mathematics	3.40	-2.411	125	.202
Arts-Language	3.72			

In order to test the research hypothesis, grade 12 students' attitudes of students in Science-Mathematics and Arts-Language programs based on sum scores were calculated and compared by independent sample t-test. As Table 12 shown, since the probability significant was .202, which was bigger than .05, the research hypothesis was rejected and thus meant "There is no significant difference between grade 12 students in Science-Mathematics and students in Arts-Language in their attitudes toward English as a foreign language learning."

Table 13: Comparison between Science-Mathematics and Arts-Language Students' Attitudes at the Demonstration School of Ramkhamhaeng University

| Grade 10 - 12 | Mean Score | t-test for Equality of Means | | |
		t	df	Sig. (2-tailed)
Science-Mathematics	3.58	-2.881	424	.419
Arts-Language	3.81			

In general as, table 13 shown the comparison between 264 Science-Mathematics students and 167 Arts-Language students' attitudes towards English as a foreign language learning at the Demonstration School of Ramkhamhaeng University.

The level of upper secondary students' attitude towards English as a foreign language learning in Science-Mathematics and Arts-Language program were high. This implied that the students in both programs were satisfied with English as a foreign language learning.

1. For students in Science-Mathematics program at the Demonstration School of Ramkhamhaeng University, they were satisfied with English language as a foreign language learning.

2. For students in Arts-Language program at the Demonstration School of Ramkhamhaeng University, they were satisfied with English language as a foreign language learning.

3. About comparison the students' attitudes toward English as a foreign language learning in both programs, there is no significant difference between students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University in their attitudes toward English as a foreign language learning.

    3.1 There is no significant difference between grade 10 students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University in their attitudes toward English as a foreign language learning.

    3.2 There is no significant difference between grade 11 students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University in their attitudes toward English as a foreign language learning at the Demonstration School of Ramkhamhaeng University.

    3.3 There is no significant difference between grade 12 students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University in their attitudes toward English as a foreign language learning at the Demonstration School of Ramkhamhaeng University.

Discussion

1. What are Thai upper secondary students' attitudes toward English as a foreign language learning in Science-Mathematics program at the Demonstration School of Ramkhamhaeng University?

As this study found, Science-Mathematics students' attitudes towards English as a foreign language learning were high. The students most satisfied with English language teacher and the students least satisfied with English language work.

2. What are Thai upper secondary students' attitudes toward English as a foreign language learning in Arts-Language program at the Demonstration School of Ramkhamhaeng University?

As this study found, Arts-Language students' attitudes towards English as a foreign language learning were high. The students most satisfied with English language class and the students least satisfied with English language work.

3. Is there a significant difference between students in Science- Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University in their attitudes toward English as a foreign language learning?
When comparing the students' attitudes in both programs, the researcher found that there were no significant differences between students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University.

3.1 Is there a significant difference between grade 10 students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University in their attitudes toward English as a foreign language learning?
The testing of research hypothesis results showed that the probability significance was .235, which was higher than .05, thus the research hypothesis was rejected and thus meant there were no significant differences between grade 10 student in Science-Mathematics and Arts-Language. Regarding to English language teacher, Ghazali, Setia, Muthusamy, and Jusoff (2009) explained teachers play an important role in students' education teacher exactly help students shape attitudes toward the teacher. It is necessary for teachers to be properly trained and prepared skills to positively achieve their tasks. Essentially, teachers need to know exactly how to read any text and to interpret the texts using critical thinking skills and they need to specify the cultural elements of texts because to neglect it may limit students' participation and possibly result in misunderstanding Moreover, Ghazali et al. (2009) explained the ability to produce their own additional materials is a skill that teachers need. Teachers should be able to search for information through the internet and modify it to fit with their students' interest and proficiency level instead of depending on the Ministry of Education. It is essential that teachers are prepared with enough pedagogical content knowledge which positively impact classroom practices and in turns affect learning results and success of students.

3.2 Is there a significant difference between grade 11 students in Science-Mathematics and Arts-Language programs at the Demonstration School of Ramkhamhaeng University in their attitudes toward English as a foreign language learning?
The testing of research hypothesis results showed that the probability significance was .331, which was bigger than .05, thus the research hypothesis was rejected and thus meant there were no significant differences between grade 11 student in Science-Mathematics and Arts-Language. Regarding to English language work, according to Gardner (2007), attitude towards the other languages are not the only attitudes that would be involved, but recognition of others ethnicity, language, and tradition may call attends to many attitudes that may affect learning language skill. Therefore, homework or activities for learning are very important. It has high

opportunities that many of attitudes become important for the first time in the language class. Exactly, many of the attitudes specifically associated with the group or the language are quite probably latent until the student meets the needs of learning the language in environments surrounded by the other language groups is not especially represented. Thus, English language works whether individual activities or activities in pairs are very important to make the students have positive attitudes toward English language work.

3.3 Is there a difference between grade 12 students in Science-Mathematics and Arts- Language programs at the Demonstration School of Ramkhamhaeng University in their attitudes toward English as a foreign language learning?

The testing of research hypothesis results showed that the probability significance was .202, which was bigger than .05, thus the research hypothesis was rejected and thus meant there were no significant differences between grade 12 student in Science-Mathematics and Arts-Language. Regarding to English language textbook, Uribe et al. (2013) described students' attitudes towards English language textbook can measure students' attitudes towards the lessons with special emphasis on the textbook and class exercises. Gardner (1985) explained attitudes as components of motivation in language learning and combination of effort and desire to understand the goal of learning the language and positive attitudes toward learning the language. Regarding to English language class, Uribe et al. (2013) explained the motivation to learn a foreign language is determined by basic feelings and behavior features such as the learner's attitudes towards foreign people in general, and language in individual, motives for learning, and comprehensive attitudes. Thus, English language textbooks are important for students because if textbook contents and format are interesting, the students will have positive attitudes toward English language textbook.

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DEVELOPING AN INTEGRATED QUALITY MANAGEMENT MODEL USING ADVANCED EXECUTION PREMIUM STRATEGY FOR THAI HIGHER EDUCATION INSTITUTIONS*

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Abstract: The purpose of this study was to develop an integrated quality management model using Advanced Execution Premium Strategy. Purposive sampling was adopted in this study. 30 senior managers and staff were chosen from different institutions which received good and very good of IQA from various Thai Higher Education Institutes. Induction and deduction were conducted. Data analysis, mechanism and system that consists of CSIPOCF (Context, Suppliers, Input, Process, Output, Customers and Feedback) was adopted as a framework for integrating quality assurance and management strategy. The research found that the model consists of system and mechanism as the Office of Strategy Management was responsible for coordination and integration of all the management process at policy making level and action level. Database system, strategy development process – strategy plan, action plan, monitoring and learning, evaluation as well as budget were needed for integration process. Integration of strategic management and other concepts - strategic map is the challenged strategy to the competitive global environment in Higher Education Institutes.

Introduction

Higher education institutions (HEIs) are now facing in a competitive global environment. For survival and to stay competitive, effective factor was an output for the quality of graduates, researches and other tasks. Senior management and teamwork were a crucial contribution to the successful development. Kahveci & Taskin (2013) stated that strategic management can help organization become a more productive and effective environment.

Senior management needs to find strategies or methods to develop and improve organizational effectiveness and efficiency. Higher Education Commission accelerates and supports HEIs to develop organization ability for management. Quality assurance in education was defined as a part of higher education institutions management in the National Education Act B.E 2542 (1999) and Amendments (Second National Education Act B.E.2545 (2002), in Section 47 which stated that internal quality assurance is a part of institutional administration which must be a continuous process. As quotation the publications of the Office of the Higher Education Commission (1999):

> *"There shall be a system of educational quality assurance to ensure improvement of educational quality and standards at all levels. Such a system shall be comprised of both internal and external quality assurance. The system, criteria, and methods for quality assurance shall be as stipulated in the ministerial regulations"*

Therefore, an integration of quality assurance system both internal quality assurance – IQA and external quality assurance – EQA and strategic management are the same thing. Strategic management which includes quality assurance can reduce redundant work. Integration of strategic management and other concepts, which is called strategic map, has been studied by Kettunen (2011, 2015). Strategy map is a combination of various concepts, restructure of strategic management and quality assurance system. Even though quality assurance system is an independent system, it can be integrated with information systems, annual action plan, human resource management plan, and budgeting management. This concept has been found by many researchers as an integration of quality assurance system with other concepts. They enable efficient management and help colleges and universities become more productive and improve their competitive advantage (Kahveci & Taskin, 2013).

In fact, strategic management is not new to Thai education; short-, medium- and long-term plans had been developed over the past decade in each higher education institutions to enable organizational management effectiveness and sustainability. However, the successful implementation and adoption of strategic plan brought challenge for them. Various problems and issues concern the adoption of strategic management in Thai higher education institution; for example, 1) unclear policy for strategic management and unable to bring it in practice 2) outdated database and unlinking data between each systems 3) gaps between a strategic plan and a process (Kaplan & Norton, 2008) 4) an absence of assessments and evaluations and 5) no linkages between quality assurance and management system (Pitiyanuwat, S., B.E. 2549). These problems and issues were summarized in Table 1.

Table 1: Problems/Issues of Strategic Management

Issues	Details	References
1. Unclear policy for strategic management and enable to bring it in practice	1. Do not understand a direction of strategic management in organization	Kettunen (2015), Asif *et al.* (2009)
	2. Lack of process involved strategic development and action plan is inconsistent	Asif *et al.* (2009)
	3. Negative attitude towards strategic management changes	Asif *et al.* (2009)
	4. Communication and assessment system are inefficient	Kettunun (2011), Kaplan & Norton (2008)
2. Outdated database and unlinking data between each systems	1. Database systems (such as organizational staff, budgets, students, activities) are outdated and not ready to use	Shawyh (2005), Kahveci & Taskin (2013)
	2. Database is not shared across system within and outside organizations.	Kettunen (2011)

Table 1: Problems/Issues of Strategic Management

Issues	Details	References
3. Gaps between a strategic plan and a process	1. Lack of communication between organization staff 2. No specific division/department responsible for the process of strategic plan development	Kaplan & Norton (2008)
4. An absence of assessments and continuously evaluations	There is no evaluation occurring the period of the implementation process	Piltiyanuwat (B.E.2549)
5. No linkages between quality assurance and management systems	System and process of quality assurance and management system are separated	Piltiyanuwat (B.E.2549)

From the review of problems and issues with strategic management in Table 1, it shows that institutional management system needs to be considered. In response to this need, a guideline of integrated concept between management, strategic, and quality assurance should be developed. Katniak (2012) found that the advantages of integration in these concepts are: 1) Reduce time consuming for collecting evidence, documentary and assessment, up to 70 percent. 2) Help organizations to reduce cost and boost productivity, up to 50 percent. 3) Promoting effective communication in an organization and reduce the barriers to use of previous management methods, up to 45 percent. (6) Decision making is more effective, up to 42 percent. (7) Organizational culture adaptation. (8) Acceptance from staff in an organization because of high motivation and reduce conflicts, up to 35 percent. (9) Improvement of services, up to 35 percent. (10) Increasing customer confidence rate, up to 34 percent.

An integration of management system and quality assurance are a crucial strategy for solving the problem. It can enhance organizational management to be more effective and successful. These are not only the comply with the laws and regulations of government, but this also leads the opportunities of benefits to reduce time consuming for redundant work, reduce costs and budgeting, to increase quality and productivity and built up positive attitude of organization staff. The paper aims to develop an integrated quality management model using advanced execution premium strategies for Thai higher education institutions, so that appropriate developmental actions can be taken in curriculum, division, faculty, and institution.

Theoretical Framework

The three dimensions of 'Advanced execution premium strategies', 'CSIPOCF', and 'Integration' theory are used as the basis of a theory for developing an integrated quality management model. Advanced execution premium strategy focuses on an integration of concepts of strategic management from worlds' leading senior managers; they are Kaplan & Norton, Peters & Waterman, and Porter. CSIPOCF refers to the process of management in organization. Integration is generally emphasized in combination of several systems in a holistic view. These theories are showed in Figure 1 and explained in the following section.
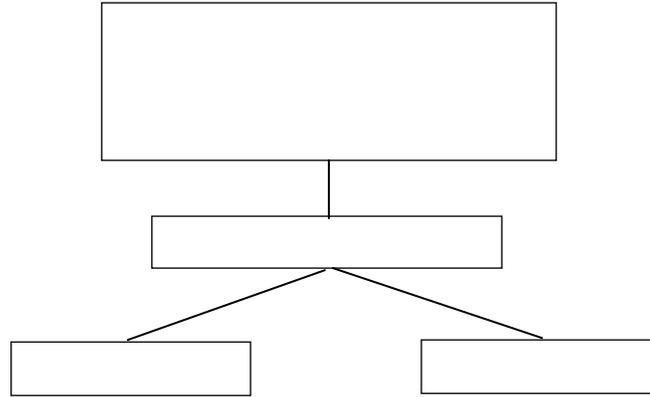
Figure 1: Theoretical Framework

Advanced Execution Premium
Advanced Execution Premium is an integration of ideas of world's leading senior managements. They are Execution Premium: EP, In Search of Excellence: 7-S Model, and Value Chain.

Execution Premium: EP
EP was developed by Kaplan & Norton (2008). They are famous leaders in organization strategic management. The survey was examined in 1996 about the state of strategy execution. They found that only 40% of the organizations had linkages between strategic and budgeting planning. They introduced those six steps as a key success in strategic implementation. A thorough understanding of each step or activities taking place during implementation stage can enhance the success of strategic plan. These steps are presented in Figure 2.
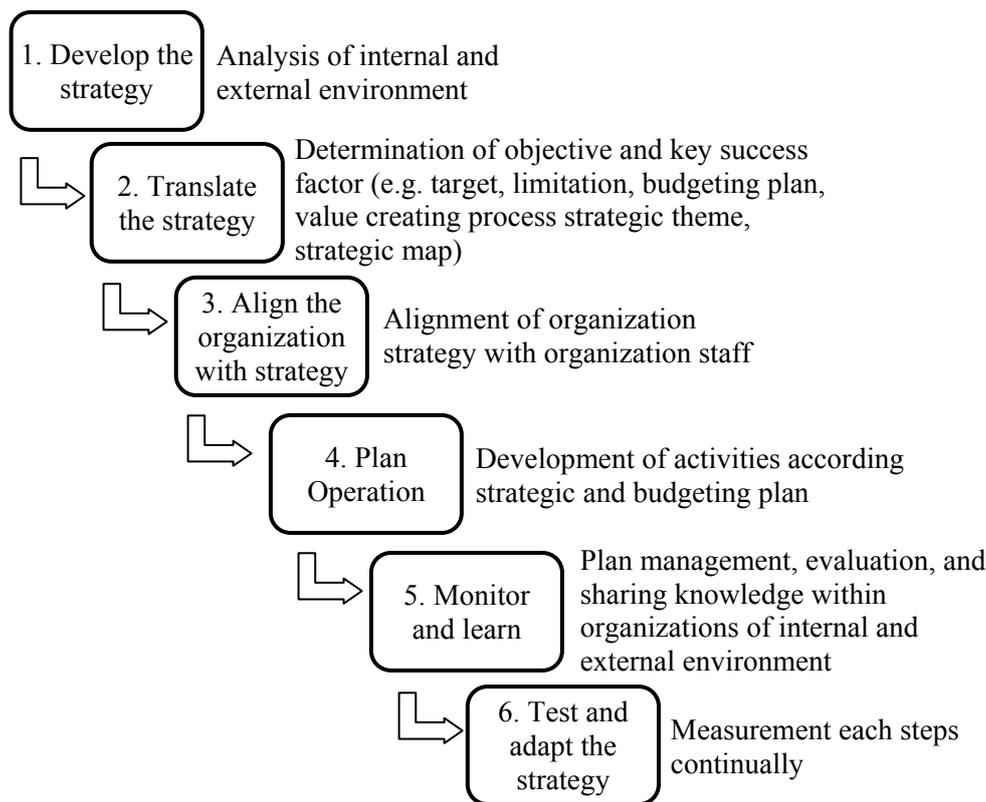
Figure 2: Strategy Implementation Process (Kaplan & Norton, 2008)

Kaplan & Norton (2008) argued that the Office of Strategy Management (OSM) was a crucial part of the main responsibility for integration and connecting activities between departments. OSM worked as an integrator or architect in order to design new strategy created by new ideas and managed process as a project owner.

In Search of Excellence (7-S Model)
In Search of Excellence of Peters & Waterman (1982), it was one of the biggest selling business books ever, selling 3 million copies in its first four years, and being the most widely held monograph in the United States from 1989 to 2006. Peters & Waterman was well-known business consultants. In Search of Excellence was defined into two groups – Hard's and Soft's. Hard's refer to things that can be easily explained or tangible, while Soft's is hardly unexplainable and usually means intangible. These two groups were presented into seven elements as shown in Table 2.

Table 2: Seven Elements in Search of Excellence Were Divided into Two

Groups

Group	Element
Hard's	1.Structure
	2.Strategy
	3.System
Soft's	4.Shared value
	5.Skill
	6.Style
	7.Staff

Two groups are as follows:

Hard Elements consist of 3 elements, (1) Structure is the organizational chart of the organization and the way divisions and units are organized. (2) Strategy is a plan developed by an organization for enhancement of its competitive advantage. (3) System is the process and procedures of the organization, which brings together the component of input, process, and output into one system and ensuring that it will function together as a system.

Soft Elements consist of 4 elements, (1) Shared Values are the core of the model. It stands for the central beliefs and attitudes of the organization. All personnel concerned for working in an organization. (2) Skills are the abilities of people who perform very well. They also include capabilities and competences. (3) Style is the typical behavior patterns of key groups, or staff for example senior managers, and other professionals. (4) Staff are the numbers and types of personal within the organization. They will be recruited, trained, motivated and rewarded.

Peters & Waterman (1982) stated that 7 elements of the model were aligned and connected. 1 element can affect others and start at any elements. An effective management in organization can use both Hard's and Soft's elements.

Value Chain

Value Chain was introduced by Porter (1985). It was first described and popularized in his 1985 best-seller. Value Chain was the appropriate for managing higher education. For example, Hutaibat (2011) and Sison *et al.* (2000) adopted Value Chain in higher education institutions, they found that Value Chain can help institutions accomplish their tasks more efficiently such as teaching and learning task, research task, and services. Therefore, Value Chain consists of sets of activities that HEIs are operating in order to deliver a valuable product or service for the stakeholders. The concept of the value chain is based on the process purpose of organizations, the concept of seeing outputs (or service) organization as a system, made up of subsystems each with inputs, transformation processes and outputs. Inputs, transformation processes, and outputs involve the acquisition and consumption of resources-money, materials, equipment, buildings, land, and management.

CSIPOCF

CSIPOCF comes from SIPOC system (Zee – Poc) which is a concept of Scholetes (1998). SIPOC consists of Suppliers, Input, Process, Output and Customers, which is used for analyzing organization from the overview into details. Scholetes (1998) point out that it is necessary to look at the characteristics of those organizations and their environment including impacts to them. Moreover, context and feedback is a crucial part in order to investigate organization (Hoy & Miskel, 1991; Taylor & Hill, 1993). Therefore, context and feedback are necessary elements to combine into SIPOC which becomes CSIPOCFO. In order to take an easy word, O can be defined both Output and Outcome so CSIPOCFO is adapted in to CSIPOCF. Details of CSIPOCF model are presented in Table 3.

Table 3: Details of CSIPOCF Model

Abbreviation	Detail	Explanations	References
C	Context	Inner and outer environments, The inner environment includes an organization's resource, philosophy, vision, mission and politics whereas outer environment includes economic factors, external politics and social factors.	Hoy & Miskel (1991), Taylor & Hill (1993), Kettunen (2011).
S	Supplier	Organization or community such as institutions, post graduate school, industry, cooperation organization	Hoy & Miskel (1991), Scholtes (1998), Porter (1985), Hutaibat (2011), Kettunen (2011).
I	Input	It can be a variety of forms that enter into system or services such as strategic plan, budgets, Office of Strategy Management	Hoy & Miskel (1991), Taylor & Hill (1993), Porter (1985), Scholtes (1998), Asif *et al.* (2009), Kettunen (2011).
P	Process	Operational process such as developing of management system, establish value process, support process, operational report, evaluation process	Hoy & Miskel (1991), Taylor & Hill (1993), Porter (1985), Scholtes (1998), Asif *et al.*, (2009), Kettunen (2011).
O	Output	Efficiency and Effectiveness of mission. Results of strategy development	Hoy & Miskel (1991), Taylor & Hill (1993), Scholtes (1998), Kettunen (2011).
C	Customers	Customers or stakeholders	Hoy & Miskel (1991), Scholtes (1998), Porter (1985), Hutaibat

Table 3: Details of CSIPOCF Model

Abbreviation	Detail	Explanations	References
			(2011).
F	Feedback	Reaction of information such as organizational context, input, process, results, stakeholders	Hoy & Miskel (1991), Taylor & Hill (1993), Kettunen (2011).
O	Outcome	Satisfaction of customers or stakeholders	Hoy & Miskel (1991), Taylor & Hill (1993), Porter (1985); Kettunen (2011).

Integration
There are various concepts of integration. Wilkinson & Dale (2001), Asif *et al.* (2010) and Bernado *et al.* (2010) argued that integration concept was a holistic view of organization, so integration means an act or instance of combining into an integral group in an organization. Integration can be divided into three levels. The first one is integrating in strategy level which focuses on linkages between policy and strategy, aims, and action plan. The second one is integrating in methodology which focuses in practices such as management manual, methods, documentary and training course. The third level is integrating the action level according to manual, reports and content integration. Content integration is divided into three types – Full integration, Partial integration, and No integration.

MacGregor *et al.* (1996) presented two models of management system – Model of Aligned Standard and Model of Integration. Hines (2002) differentiates Model of Aligned Standard and Model of Integration clearly: Model of Aligned Standard focuses on structures or systems which have some similarities in terms of objective, reduced process, monitor, and evaluations. Whist Model of Integration is a full integration of methods, processes which emphasizes in cooperation and satisfaction of stakeholders.

Danish Standard Association (2005) suggested standard factors in bringing integration. These factors are 1) management process which consists of strategy, policy, monitoring, resources and departments 2) business process, that are communication process, management, planning and maintenance and 3) supporting process which includes documentary control, registration, training, management system. Therefore, integration is a combination of concept or theory which demonstrates through activities alignment.

Method

Participants
Thai Higher Education Institutions; 10 HEIs were purposive sampling in different areas and groups. These are the autonomous Universities, Public Universities, Rajabhat Universities, and Nursing Colleges. This research was a qualitative research using deductive and inductive approach. In order to understand a management system within Thai higher education institution, 30 senior managers

who were Presidents, Vice Presidents were responsible for quality assurance system from various Thai HEIs, were interviewed as they were the key stakeholders for management system in higher education institutions. Purposive sampling was adopted in this study. The samplings were chosen from institutions which received good and very good internal quality assurances assessment's score from the Office of the Higher Education Commission's database.

A summary of the interviewees are presented in Table 4.

Table 4: Summary of The Interviewees

Interviewee Code	Group Senior Management			Part of the organization
	Leader	Administrator	Project Team	
IP1	X			Personnel Management Division
IP2		X		Personnel Management Division
IP3			X	Quality Assurance Division
IP4	X			Personnel Management Division
IP5		X		Personnel Management Division
IP6			X	Quality Assurance Division
IP7	X			Personnel Management Division
IP8		X		Personnel Management Division
IP9			X	Quality Assurance Division
IP10	X			Personnel Management Division
IP11		X		Personnel Management Division
IP12			X	Quality Assurance Division
IP13	X			Personnel Management Division
IP14		X		Personnel Management Division
IP15			X	Quality Assurance Division
IP16	X			Personnel Management Division
IP17		X		Personnel Management Division
IP18			X	Quality Assurance Division
IP19	X			Personnel Management Division
IP20		X		Personnel Management Division
IP21			X	Quality Assurance Division
IP22	X			Personnel Management Division
IP23		X		Personnel Management Division
IP24			X	Quality Assurance Division
IP25	X			Personnel Management Division
IP26		X		Personnel Management Division
IP27			X	Quality Assurance Division
IP28	X			Personnel Management Division
IP29		X		Personnel Management Division
IP30			X	Quality Assurance Division

Collection of Data

Data collection methods employed in this research were semi-structure interviews. Interview questions were drawn up and structured based on the literature review. Table 5 provides a list of the interview questions to the right target group.

Table 5: Mapping of Interview Questions to The Literature

Questions	Explanations	Target group to be asked the question	Number of questions	Underpinning areas of literature
Tell me about the direction of institution and strategic management within the institution. How organization staff participate in the process of strategic development?	This question will give an insight to how the organization staff think about strategic management in the institution. To explore how strategic plan developed in the organization.	Leaders and administrat ors	4	Kaplan & Norton (2008); Peters & Waterman (1982), Porter (1985)
How institution has developed database for management? What kind of information is used?	To explore what kind of information available in the organization. How the organization does manages data?	Administrat ors & Project leaders	2	Peters & Waterman (1982), Porter (1985), Kaplan & Norton (2008)
What do you think when staff do not understand organization strategy? How do you deal with the problem? Who is responsible for the problem?	To identify and understand how staff feel about organization strategy and how leaders deal with problems.	All groups	2	Kaplan & Norton (2008)
How do you evaluate the success of strategy management in the organization? Tell me what the process of evaluation and assessment of	This question helps to identify strategy implementation process in the organization. To explore what kind of process or method they use to identify the success of	Administrat ors & Project leaders	1	Kaplan & Norton (2008), Peters & Waterman (1982), Porter (1985)

Table 5: Mapping of Interview Questions to The Literature

Questions	Explanations	Target group to be asked the question	Number of questions	Underpinning areas of literature
organization strategy in the organization are.	organization strategy in the organization.			
Tell me about internal quality assurance in the organization. How does the institution combine internal quality assurance system with quality management in the organization?	This question will help to gain an insight to the process of internal quality assurance in the organization. Also helps to identify the process of internal quality assurance integrated to quality management in the organization.	All groups	2	Danish Standard Association (2005), MacGregor *et al*. (1996) Wilkinson & Dale (2001), Asif *et al*. (2010)

Face-to-face, semi-structured interviews were undertaken in each institution over a period of 5 months/year by the researcher.

Data analysis
Content analysis was adopted to facilitate the analysis of literature and interview data. Table 6 presents the findings categorised by using CSIPOCF model.

Table 6: Summary of Findings

Questions	Explanations	Findings
Tell me about the direction of institution and strategic management within the institution. How organization staff participate in the process of strategic development?	This question will give an insight to how the organization staffs think about strategic management in the institution. To explore how strategic plan developed in the organization.	The University Council members are responsible for setting the organization policy and goals which is based on the University Mission and Vision. It also concerns the inner and outer context of the university and the university stakeholders. Development of new organization strategy was set by a consensus of every part, which involved with the university, to gain a strong competitive advantage.
How institution has developed database for	To explore what kind of information	Planning division and technology departments are responsible for

Table 6: Summary of Findings

Questions	Explanations	Findings
management? What kind of information is used?	available in the organization. How the organization does manages data?	organization database such as organization staff database, budgets, student database, activities, and quality assurance database. Database between small and large organization are different. Database system requires a significant amount of expenditures. Most organizations are in the process of database development.
What do you think when staff do not understand organization strategy? How do you deal with the problem? Who is responsible for the problem?	To identify and understand how staff feel about organization strategy and how leaders deal with problems.	Policy and planning divisions are usually responsible for bringing policy to real actions. Quality assurance division is responsible for communicating organization plan into organization senior management, academic staff, and administration staff. It also monitors and evaluates work tasks in various level such as faculty level, department level, and executive management group. So, this information can be gathered in order to improve organization efficiency in the future.
How do you evaluate the success of strategy management in the organization? Tell me what the process of evaluation and assessment of organization strategy in the organization are.	This question helps to identify strategy implementation process in the organization. To explore what kind of process or method they use to identify the success of organization strategy in the organization.	Monitoring and evaluation with regards to the organization strategy plan have been done in each institution regularly. Mostly, Policy and Planning divisions were responsible for the tasks.
Tell me about internal quality assurance in the organization. How does the institution combine internal quality assurance system with quality management in	This question will help to gain an insight to the process of internal quality assurance in the organization. Also helps to identify the process of internal	Quality assurance system and management systems were still separated. Internal quality assurance in HEIs is based on system and its mechanism. The system - Input, process, and output is required. PDCA cycle (Plan Do Check Act)

Table 6: Summary of Findings

Questions	Explanations	Findings
the organization?	quality assurance integrated to quality management in the organization.	for the main process is important. And its process can also have sub-process as well. Besides, controlling, monitoring, and evaluating for quality improvement is needed. So, IQA and management system can integrate in the policy process, or strategy process and action process. The policy process is the way for actions. In the action level, it can integrate in database, planning process- project, and activities- and implementation. All are supported by mechanism – budget (Strategy Expense – STRATEX) human resources, information Monitoring and evaluation regarding the organization strategy plan have been done in each institutions regularly. Mostly, Policy and Planning divisions were responsible for the tasks.

Table 7: Findings of The Interview Data Analysis with CSIPOCF Model

CSI POCF Model	Explanation	Findings from the interview data analysis
C	Context	Context of each institutions were different with regards to the institutions objective, group of institutions, mission, vision, institution environments, structure, competitor, area, suppliers, stakeholders, and customers
S	Suppliers	Suppliers of institutions are departments or divisions in the hierarchy, University Council, industrial, customers and other stakeholders involve with the institutions.
I	Input	Senior management and team, institution staff, student, information technology, finances and budgets, and marketing strategy , Database system, Strategy Expense – STRATEX, Technological development, and facilities supporting learning system.
P	Process	Quality improvement is needed. So, Internal Quality assurance system and management system can

Table 7: Findings of The Interview Data Analysis with CSIPOCF Model

CSI POCF Model	Explanation	Findings from the interview data analysis
		integrate in policy process, or strategy process and action process. The University Council members are responsible for setting organization policies and goals which are based on the Mission and Vision. It also concerns the inner and outer context of the university and the university stakeholders. Development of new organization strategy was set by a consensus of every part of the management process. In the action level, it can integrate in database, the planning process- project, and activities- and implementation in actions, monitoring and evaluations. The office of Strategy Management –OSM is responsible for being the centre of integration in order to achieve its objectives.
O	Output	Quality of graduates, employment rates, student performances in national and international level, quality of academic staff according to TQF, dissemination of academic staff, social responsibilities.
C	Customers	University students, institution students, guardiancies, parents, industrials, communities, socials both national level and international level.
F	Feedback	Information or feedback from students, industrials, stakeholders, community and society.

Results

An integrated quality management using advanced execution premium strategies for Thai Higher Education Institutions Development. The model was derived using deductive and inductive approaches gained from a selected review of the literature combined with interview data. The model is presented in Figure 3.

(See Figure 3 on the next page)

Figure 3 describes the integration of quality management and strategic management to achieve the HEIs objectives with the system and its mechanism in the line of a CSIPOCF. The Higher Education Institutes can be integrated in the management approach which are as follows:

- Integration policy: The University Council members are responsible for setting organization policies and goals which are based on the University Mission and Vision. The inner and outer context of the university and the university stakeholders are concerned. The new organization strategy was developed by a consensus in every part, which involved the university. The
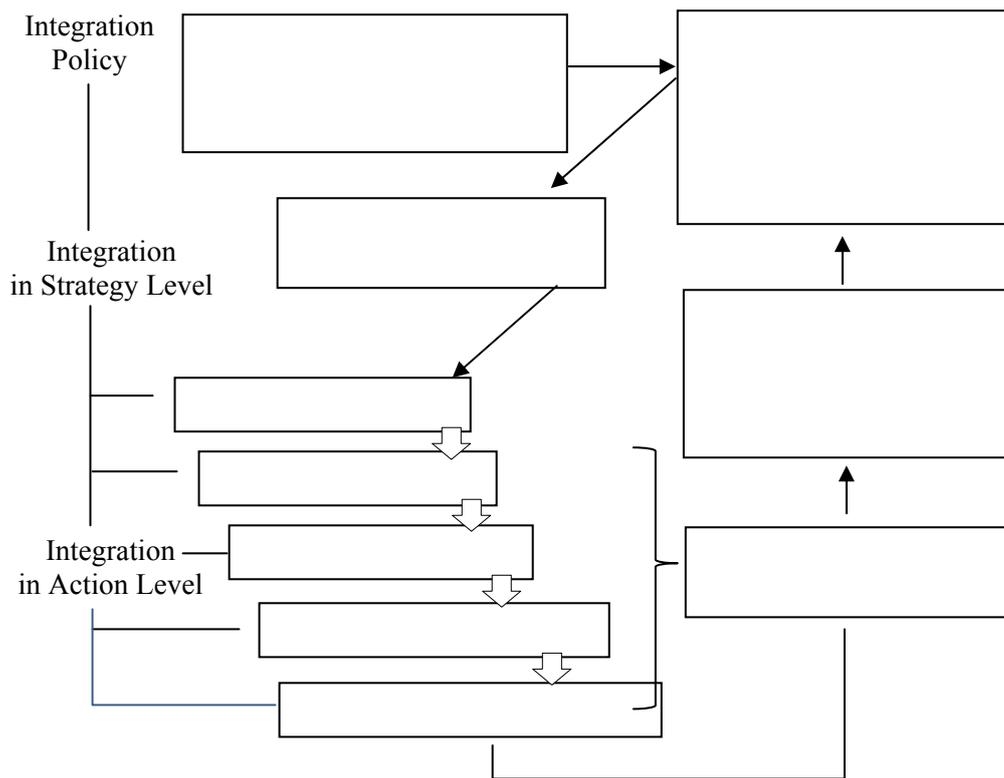
Figure 3: A Developing Model of An Integrated Quality Management Using Advanced Execution Premium Strategies for Thai Higher Education Institutions

main concept of policy integration is Quality assurance which is a part of university management as cited in "Section 47 which states that internal quality assurance is a part of institutional administration which must be a continuous process" (Office of the Higher Education Commission (1999).The university policy is the strategic way of actions in the university management.

• Integration in strategy level: This level concerns the process of strategy management. The University's Leaders –President, Vice President, faculty, supporting departments and staff who are responsible for quality assurance in order to bring the policy to the process of strategic management by developed strategic plan .The process of strategic plan are integrated such as all strategies, plan, project , budget (Strategic Expense –STRATEX) and human resource are regarded as a whole. This idea of integration is strategy map. Which is the representation of the strategy management system. This stage of integration is action level or strategic level.

• Integration in action level: The office of Strategy Management (OSM) is responsible for being the center of integration. It is a project owner and creates

the work functions and organization structure in order to achieve the organization expectations which are related to organization output, customers, feedback and outcomes. It is also is responsible for organization database such as organization staff database, budgets, student database, activities, and quality assurance database. The database can group all data or information within the same place. The action plan will be organized by OSM in developing and aligning the strategic plan. In action plan, policy to action - monitoring and evaluation are integrated in each of the process. Monitoring and learning in each process is the key of strategic plan and action plan implementation. OSM takes major role for this function. Weekly conference is required in order to follow up the plan and goals. (Kaplan & Norton, 2008). And also evaluation and assessment in each step and process as a feedback are important for integrated quality management.

The success factors of this model are two major strategies. Firstly, the policy setting of the university council committee for integration of quality assurance as a part of university management. Secondly, OSM as coordinator for integration policy level and action level in management and activities - policy, database, strategic plan and implementation, integrated quality management using advanced execution premium strategies for Thai HEIs Institutions by managing QA strategically and combining to the strategic management framework is a hard work and a very difficult way to go. But we need to propose it properly and strategically in the light of the successful implementation of the QA to achieve a competitive advantage.

Discussion

Developing of advanced execution premium strategies for Thai higher education institutions was derived using deductive and inductive approaches gained from a selected review of the literature combined with interview data. Context consists of institution environments, structure, mission, vision, competitor, area, suppliers, stakeholders, and customers. Input is senior management and team, institution staff, student, information technology, finances and budgets, and marketing strategy. Process is institution policy, database system, analysis of inner and outer context for developing strategic plan, policy brought into actions, monitoring and evaluations. The office of Strategy Management –OSM is responsible for being the center of integration. OSM is a project owner and creates the work functions and organization structure in order to achieve the organization expectations which are related to organization output, customers, feedback and outcomes.

This research found that development of an integrated quality management model using advanced execution premium strategies for Thai higher education institutions consists of system and mechanism. CSIPOCF is adopted as a framework for integrating quality assurance and management strategy. Input, process and output are basic elements of PDCA. Similarly, Kettunen (2011a) found that quality assurance and management are freedom. In order to integrate them, information system, action plan, teaching process, research system including communication

and building up understanding are needed to combine. Asif *et al*. (2010) also supported that integration is organization restructure, combination of organization plan and monitoring. In order to integrate an accomplished quality assurance system and management system, the entire process of policy making, database system, strategy development process, taking action, monitoring, measurement and evaluation need to be done as a whole. The Office of Strategy Management or OSM has   a significant part for institution's executive leader. OSM usually cooperates with other departments within the organization. Therefore, OSM needs leader and staff who have management experiences, knowledge of quality assurance system, and appropriate personality for cooperating with others (Kaplan & Norton, 2008).

Acknowledgement

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A COMPARATIVE STUDY OF TEACHERS' PERCEPTIONS TOWARDS SCHOOL'S PROFESSIONAL DEVELOPMENT ACCORDING TO THEIR DEMOGRAPHICS AT NO. 26 BASIC EDUCATION HIGH SCHOOL IN MANDALAY, MYANMAR

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Abstract: The main purpose of this study was to compare the significant differences in the teachers' perceptions towards school's professional development according to their demographics: age, grade level currently teaching and years of teaching experience at No. 26 Basic Education High School in Mandalay, Myanmar.

The participants of this study were 96 teachers from No. 26 Basic Education High School at Mandalay, Myanmar during the academic year 2015-2016. This study was designed as quantitative and comparative study. Data was gathered using the research instrument, 5 Likert scaled questionnaire that consisted of two parts; Part I investigated the participants' demographics and Part II compared the teachers' perceptions. The data collected from the survey was analyzed by descriptive statistics; Frequency & Percentage, Mean, Standard Deviation and comparative analysis; One-Way Analysis of Variance (ANOVA).

The transformed data of this study showed that teachers from No. 26 Basic Education High School, Mandalay had "positive" perceptions towards their school's development activities. However, the comparative analysis described that there were no significant differences in the teachers' perceptions towards school's professional development according to their demographics: age, and grade level currently teaching and years of teaching experience at No. 26 Basic Education High School in Mandalay, Myanmar.

Though the findings revealed no significant differences, it gave some ideas to create a professional development encompassing teachers' multiple viewpoints in order to professionally organized learning environment where teachers' wants, needs meet and it will make the students learn successfully.

Keywords: Demographic Profile (gender, age, grade level currently teaching and years of teaching experience), Teachers' Perception, School's Professional Development, No. 26 Basic Education High School.

Introduction

In today's knowledge society, quality education has been a critical topic for every nation's development. Talking about education, schooling lies at a very essential role, as it is a process of changing people's behaviors and to develop morality and personality. When we consider about quality education, it cannot be successful itself, or be recognized, without the teachers because in reality teachers are the people who will determine lessons to be introduced, attempted, and included in the classroom (Lucilio, 2009).

At the same time, many questions upraise regarding to teachers' competence when considering about the quality education. Teachers might have received initial teacher education before entering into their career or might have learnt from their career experience. However, such teachers' personal experience alone is not sufficient for today's learners' development. Therefore, standards of teaching and

learning need to improve continuously to ensure that the learners can be successful in the future (Organization for Economics and Co-operation Development, 2009b).

As the quality of teacher is the most important determinant of student performance, school are now increasing emphasis on improving the capacities of teachers in order to improve student learning. A growing numbers of researcher assumed that improving teacher knowledge and teaching skills is required to increase students' learning outcomes. Therefore, in most of the developed countries, school leaders upgrade teachers' quality through professional development programs in continuing way. As professional development in schools is critical for country's improvement and educational reform, the way teachers see on its impacts also better to be studied. Therefore, schools should prepare to invest their efforts in effective professional development program for teachers and provide effective evaluation in order to organized professional development activities or programs which is, beneficial and significant for teachers' needs.

Local context of this study, in Myanmar, education is highly regarded as an essential part of life for every citizen. In Myanmar, the Ministry of Education mainly provides education with the vision: *To create an education system that will generate a learning society able to face the challenges of the Knowledge Age* (Ministry of Education, 2012). According to the Ministry of education, Myanmar education can be categorized into - the basic education and the higher education. All governmental basic education schools are named in the format of - No. (x), Basic Education (Primary/Middle/High) School, (Township name), (Division/District). For tertiary educational, government provides all of the universities and institutes in Myanmar.

Concerning with teacher professional development, most of the teachers in public high schools receive initial teacher education before they enter their profession. However, to combat the 21st century learning demands, Myanmar education system has not well prepared the teachers' quality in substantial way, for all types of schoolings (Kavinda, 2014). Similarly, there are not many in-service teachers' continuing development or training at both public and private Myanmar schools. No matter reformation of education has been considered as crucial in order to transform a democratic nation, research and evaluation regarding to teachers' professional development concerns is still very limited.

According to Lowden (2003) study, evaluation of professional development in schools is essential to the improvement of teacher knowledge, skills, instructional pedagogy and student achievement. Therefore, this researcher chose a transparent public high school, No. 26 BEHS, Mandalay that is currently providing in-service teacher development and appreciated to conduct this study to identify teachers' perceptions, which will be helpful for their teachers' development.

Objectives

The following are research questions for this study.
1. What are the demographic profiles of the teachers including gender, age, grade level currently teaching and years of teaching experience at No. 26 Basic Education High School in Mandalay, Myanmar?

2. What are the teachers' perceptions towards school's professional development at No. 26 Basic Education High School in Mandalay, Myanmar?

3. Are there any significant differences of the teachers' perceptions towards school's professional development according to their demographics: age, grade level currently teaching and years of teaching experience at No. 26 Basic Education High School in Mandalay, Myanmar?

Literature Review

In the course of this study, the researcher set out objectives that helped out in the identification of the teachers' perceptions towards school's professional development at No. 26 Basic Education High School in Mandalay. In meeting these objectives, the researcher utilized the model, developed by a Professor of Educational Psychology in the College of Education at the University of Kentucky, Thomas R. Guskey's *Five Critical Levels of Professional Development Evaluation.*

In Guseky's (2000) professional development evaluation model, five critical stages or levels of respondents' information were considered. These levels were adopted form Kirkpatrick (1959, as cited in Guskey, 2000, p. 78), which was widely applied in business and industry. The five levels of this model are as follow.

*Level (1) Participants' Reactions***:** The first level of professional development evaluation focuses on teachers' reactions to their professional development experience. Primarily, this level is concerned with the teachers' satisfaction on schools' development programs. The questions address at this level were on whether or not teachers engaged. Teachers' feedback at this level is designed for professional development specialists to modify the design and delivery of programs or activities in better ways (Guskey, 2000).

*Level (2) Participants' Learning***:** The second level focuses on measuring the acquisition of new knowledge or skills that teacher attained. This section serves to validate the relationship between what was intended and what was achieved in terms of professional development.

*Level (3) Organization Support and Change***:** At level 3, the focus moved to the entire school organization. This level provides questions that helped analyze organizational support and change in a specific school or district. These include exploring the teacher perceptions regarding to organizational characteristics that could lead them change: how supportive the school policies are, the strength of leadership in the school, quantity of resources, and the climate and culture in the school.

*Level (4) Participants' Use of New Knowledge and Skill***:** For Level four, Guskey (2000) turned his attention to whether/how participants apply newly acquired knowledge and skills in the class. Participants will be asked whether they felt the new knowledge and skills would lead change in their teaching practice and whether they felt new teaching practices acquired during their training help students attain knowledge and skills that would result in increased student achievement.

*Level (5) Student Learning Outcomes***:** Level five is addressing the main goal of professional development in education, because it impacts on student learning outcomes. Improvements in student learning are possible only when professional

development activities focus specifically on learning and learners. This level allows professional development leaders to set high expectations and help establish more precise criteria for success (Guskey, 2000).

Conceptual Framework

The conceptual frameworks of this study framework was based on the research objectives set for this study. The dependent variable of this study included the *Five Critical Levels of Professional Development Evaluation*, whereas, the independent variables were the demographics of teachers: gender, age, grade level currently teaching and years of teaching experience. The two groups of variables were summarized in the framework that follows.
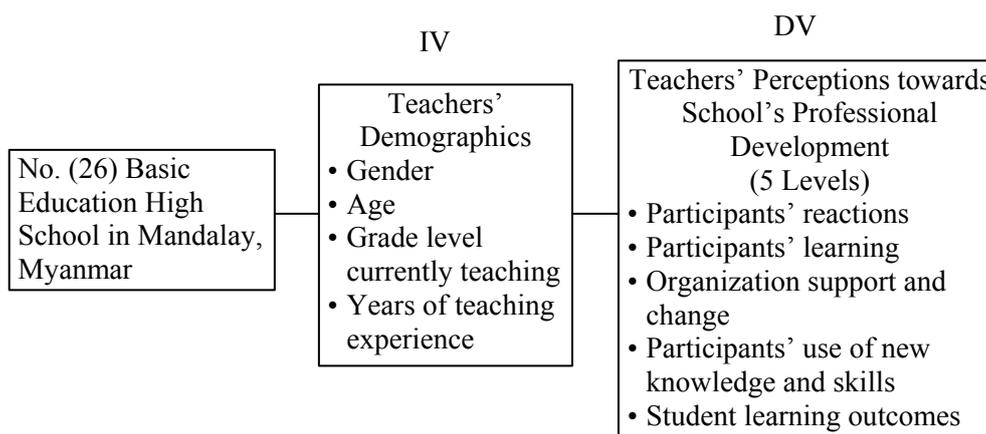
Figure 1: Conceptual Framework of The Study

Method/Procedure

This main purpose of this research was to compare teachers' perceptions towards school's professional development according to their demographics: gender, age, grade level currently teaching and years of teaching experience at No. 26 Basis Education High School in Mandalay, Myanmar. However, according to the findings, (see Table 1) the number of female teachers (94) outnumbered the male teachers (2). Therefore, one of the demographics, gender, which was mentioned in Objective 1 was excluded in Objective 3 in term of not meaningful to compare since female has already dominated male perceptions.

The respondents of this study were all of the teachers, a total of 96 teachers who are currently working   in the academic year 2015-2016 at Mandalay No. 26 High School. This research was designed as a quantitative and comparative study. Lowden's (2003) Questionnaire based on Guskey's (2000) *Five Critical Levels of Professional Development Evaluation* was adopted as the research instrument for data collection. This researcher used descriptive statistics and comparative method (One-way ANOVA) to determine the research objectives.

The research questionnaires include two parts. The first part of the questionnaire was questioning the demographics of teachers including gender, age,

grade level currently teaching and years of teaching experience. The second part was designed to evaluate the teachers' perception towards school's professional development and to compare their perception according to their selected demographics through five levels – (1) Participants' reaction, (2) Participants' learning, (3) Organization support and change, (4) Participants' use of new knowledge and skills and (5) Student learning outcomes. This questionnaire was validated by the first researcher Lowden (2003) who run a pilot study and approved by juries and curriculum committee members.

In Williams (2014) study, overall Cronbach's alpha was .84, which indicates strong reliability. Therefore, this researcher used this questionnaire for her study and the overall Cronbach's Alpha for all 5-evaluation of the questionnaire in this study was .768, which was regarded as reliable.

To collect research data from the respondents, a proper way of data gathering process was followed. First of all, the researcher made an appointment with the principal from No. 26 Basic Education High School in Mandalay, Myanmar to request permission for the implementation of this study. Then this researcher set a schedule to deliver the questionnaires to the teachers of No. 26 Basic Education High School in Mandalay, Myanmar. With the help of the school principal, the survey questionnaires were distributed on the 9th of June 2015 and collected on the 10th of June 2015 with 100 percentage valid return.

Findings/Results

Findings for Research Objective One
Research objective one was to identify the demographic profiles of teachers including gender, age, grade level currently teaching and years of teaching experience at No. 26 Basic Education High School in Mandalay, Myanmar. Therefore, frequency and percentage were used to present the teachers' demographics.

(1) Gender
The result for the first demographic factor, gender, showed that 4.2% of the respondents were males and 95.8% were females. Therefore, the numbers of female teachers were more than that of male teachers.

(2) Age
The age of respondents was grouped into three groups: Below 40 years, 40 – 50 years and 51 years and above. The result pointed out that 25% of respondents were below the age of 40 years, 27.1% of teachers were 40 – 50 years, and 47.9% were 51 years and above teachers. According to the research finding, there was the biggest proportion of teachers who were age of 51 and above while teachers of below 40 years were the smallest.

(3) Grade Level Currently Teaching

In term of teachers' current grade level of teaching, 20.8% of respondents were teaching at Primary form Grade 1 to 5 while 33.3% were at Lower Secondary from Grade 6 to 9 and 45.8% were at Upper Secondary from Grade 10-11. The result showed that the least number of teachers were teaching at Primary and the most teachers were teaching at Upper Secondary.

(4) Years of teaching experience
Out of 96 teachers, 32 teachers (33.3%) had 15 years and below of teaching experience, 13 teachers (13.5%) had 16 – 25 years of teaching experience, 33 teachers (34.4%) had 26 – 30 years of teaching experience and 18 teachers (18.8%) had 31 years and above of teaching experience. The research finding reveled that there was the biggest number of teachers who had 26 – 30 years of teaching experience while teachers with 16 – 25 years of teaching experience were the least.

Findings for Research Objective Two
At the same time, table 12 showed detailed information about total mean scores of teachers' perceptions for each evaluation level. The total mean scores of Level 1-Participants' Reactions were 3.94, Level 2 - Participants' Learning were 3.92, Level 3 - Organizations Support and Change were 3.90, Level 4 - Participants' Use of New Knowledge and Skills were 4.03 and Level 5 - Students Learning Outcomes were 4.13.

Among 5 evaluation levels, the highest mean score 4.13 was found in Level 5, which indicated that teachers agreed with the concept of teachers' professional learning has positive impacts on students' learning achievement. In the meantime, the lowest mean score 3.90 was found in Level 3, which indicated that teachers had low perceptions regarding to organizational or school supports that could lead them change.

Table 1: Number ad Percentage of Demographic Profiles of Teachers

Demographic Profiles	Category	Number	Percentage
Gender	Male	2	4.2
	Female	94	95.8
	Total	96	100
Age	Below 40 Years	24	25.0
	40 – 50 Years	26	27.1
	51 Years And Above	46	47.9
	Total	96	100
Grade Level Currently Teaching	Grade 1 – 5 (Primary)	20	20.8
	Grade 6 – 9 (Lower Secondary)	32	33.3
	Grade 10 – 11(Upper Secondary)	44	45.8
	Total	96	100
Years of Teaching Experience	15 Years And Below	32	33.3
	16 – 25 Years	13	13.5
	26 – 30 Years	33	34.4
	30 Years And Above	18	18.8
	Total	96	100

Table 2: Summary of Teachers' Perceptions Towards School's Professional Development at No. 26 Basic Education High School, Mandalay, Myanmar

Evaluating School's Professional Development	N	Mean	S.D.	Interpretation
Level 1	96	3.94	0.65	Positive
Level 2	96	3.92	0.57	Positive
Level 3	96	3.90	0.63	Positive
Level 4	96	4.03	0.45	Positive
Level 5	96	4.13	0.52	Positive
Total	96	3.98	0.41	Positive

Findings for Research Objective Three

One-way ANOVA was utilized to analyze and compared means for this objective. There were three main demographics comparing teachers' perceptions on their school's professional development program. This researcher set up the research hypothesis, "There is a significant difference in the teachers' perceptions towards school's professional development at No. 26 Basic Education High School in Mandalay, Myanmar according to their demographics, age, grade level currently teaching and years of teaching experience". According to the findings of data analysis of this study in the below table 3, 4 and 5, the probability significant value between teachers' perceptions and age was .779, the significant value between teachers' perceptions and grade level currently teaching was .099 and the significant value between teachers' perceptions and years of teaching experience was .491. This means the significant value of age, grade level currently teaching and years of teaching experience were bigger than .05 level of significance. Therefore, these results were interpreted as there were no significant differences of teachers' perceptions towards their school's professional development according to their age, grade level currently teaching and years of teaching experience at No. 26 Basic Education High School in Mandalay, Myanmar

Table 3: Teachers' Perceptions Towards School's Professional Development According to Age

Age	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.085	2	.043	.250	.779
Within Groups	15.830	93	.170		
Total	15.916	95			

Table 4: Teachers' Perceptions Towards School's Professional Development According to Grade Level Currently Teaching

Grade Level Currently Teaching	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.772	2	.386	2.370	.099
Within Groups	15.144	93	.163		
Total	15.916	95			

Table 5: Teachers' Perceptions towards School's Professional Development According to Years of Teaching Experience

Years of Teaching Experience	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.410	3	.137	.812	.491
Within Groups	15.505	92	.169		
Total	15.916	95			

Discussion

Demographic Profiles of Teachers

(1) Gender
In this study, the research findings showed that the number of female teachers exceeded the number of male teachers at No. 26 Basic Education High School, Mandalay, Myanmar. To supot this study this researcher made an informal discussion with an educator from one of the township level MOE offices in Mandalay (personal communication, July, 2015). According to his service experience as an educator at Upper Myanmar public basic education sub sector, he assumed two main reasons. The very first reason might be Myanmar culture, as teaching seemed to be an occupation more suited with female than male in Myanmar society. Generally, people in Myanmar thought that female were more patient, kind and teaching was a graceful prestigious job for female. Findings of Kavinda (2014) also indicated that female teachers had higher competency than male teachers. So, it can be assumed more female chose teaching as profession than male teachers in Myanmar. Secondly, majority of the male population in Myanmar was considered as the breadwinner of their family. In Myanmar, although teaching is a noble job, the earning wouldn't meet the ends for a family to survive well. Therefore, this could be another reason most of the male chose a well-paid job rather than teaching profession unless they passionate in teaching.

(2) Age
According to data findings from this study, the majority of teachers were in the age of 51 years and above (47.9%) followed by the teachers in the age of 40- 50 years (27.1%) at No. 26 Basic Education High School, Mandalay. The data showed that only one third of the teacher population (25.0%) was the younger generation of teachers in the age of below 40 years. Similarly, Kavinda (2014) also stated his findings that most teachers in public Myanmar High schools were old and this could generally be the nature of public high schools in Myanmar. Teachers in Myanmar public high schools were promoted by their in-service years and their content knowledge of subject area they concerned. Therefore, as a high school, there might be more number of older teachers than the younger ones. In addition, for the matter of the inadequacy of skilled teachers, some teachers work till to the retired age, 60 years, although they may have over 30 years of teaching experience (personal communication, July, 2015).

(3) Grade Level Currently Teaching

From the research findings, it can be seen vividly that majority of teachers were teaching at Upper Secondary (44 teachers) and Lower Secondary (32 teachers) while very small number of teachers were teaching at Primary level (20 teachers). One of the reasons might be that in lower primary from Grade 1 to 3, one teacher took care of the whole class teaching all round subjects. But then in Upper Primary from Grade 4 to 5, mostly there might be one or two teacher for each subject. Moreover, through researcher observation on students list at No. 26 Basic Education High School (academic year 2015-2016), there were fewer classes in Primary than in Secondly levels. Another reason would be that both Secondary levels had subject teachers for each class level and there were more classes in Secondary level as more students were in Secondary than in Primary.

(4) Years of Teaching Experience

According to the finding, this study found that most teachers (34.4%) had 26 – 30 years of teaching experience, followed by 15 years and below of teaching experience (33.3%), then 31 years and above of teaching experience (18.8%) and the least was 16 – 25 years of teaching experience (13.5%). Generally, in Myanmar, a teacher with about 15 years of teaching experience could be assumed as an experienced teacher. Therefore, based on the findings it could be considered that there were many experienced teachers at No. 26 Basic Education High School Mandalay, Myanmar as they were trained and promoted by their in-service years of teaching experience. Surprisingly, there were a few numbers of teacher who had 31 years and above teaching experience. These teachers might be working as public teachers since their young age and some of them seemed to be retired soon. It could be assumed that a lot of older teachers were probably not so updated in teaching knowledge compared with less experienced younger ones. However, they were expert in teaching for their own subject areas and efficient in using of their teaching methods as they had many years of teaching experience (Huyen, 2003 & Kavinda, 2014).

Teachers' Perceptions towards School's Professional Development

Level (1) Participants' reaction

According to the findings, evaluation Level (1) of teachers' reaction or enjoyment towards their school development program was interpreted as teachers had positive perspectives for their school development program at No. 26 Basic Education High School. In the previous study, Lowden (2003) stated that teachers felt non-threatening, the instructor was also knowledgeable and it was generally a positive experience, however, there was very low teachers' reaction on time convenience and meeting their needs. In this study, although teachers felt they had positive experience and their needs had met, they had low satisfaction for time convenience and the instructor's effectiveness, which was quite similar with Williams (2014).

Level (2) Participants' learning

This evaluation level investigated what the participants actually gained lead to any changes in their knowledge and skills through professional learning experience.

In the previous study of Lowden (2003), the teachers felt that they had learnt new knowledge, skills and concepts connected to their prior knowledge. Williams (2014) also presented that teachers in her study learnt not only the new knowledge and skill but also the theory behind the practice because of professional development. In this study, although teachers considered that they learnt more practical instructional strategies and new concepts connected to their prior knowledge, they considered they did not gain much of new knowledge and skills or theory behind the practice. Therefore, this could be assumed that topics for professional development might be less relevant or similar training might be set up repeatedly.

Level (3) Organization support and change

Overall, finding from this study indicated that teachers at No. 26 Basic Education High School Mandalay received school support and resources that would lead positive changes in school. They thought school development program had positive impact on the school, its culture and climate with the highest scores, which was similar to both previous researchers, Lowden (2003) and Williams (2014). However, in this study teachers responded that they had no ideas upon school's stipend or in-service credit. In a contrary, findings of Lowden (2003) and Williams (2014) who conducted their studies in United States of America showed that teachers' professional experience leads to in-service credit or stipend. Therefore, this researcher assumed that public schools in Myanmar might not have this practice because most of the schools do not usually employ evaluation so that it might be less possible to give credit or stipend for skillful teachers' performance.

Level (4) Participants' use of new knowledge and skills

At Level 4, teachers in this study responded that they practiced the new instructional strategies, made some changes in their teaching and noticed their positive changes in their teaching. But the findings also revealed that teachers did not usually carried out new teaching strategies. According to this researcher personal schooling experience and observation, class size of Myanmar public high schools were oversized classes with about over 40 students. Therefore, sometimes it would be difficult for teachers to apply the new teaching strategies exactly they had learnt from development activities. Moreover, some of the pedagogical practice could be adapted to Myanmar context while some might be challenging, as they may need particular resources or class environment. For these reasons, this reseacher assumed that it would be better to choose and coach the teaching strategies, which could fit well for the context of the school.

Level (5) Student learning outcomes

In this study, teachers believed that their professional development experience had positive impact on student learning. Teachers indicated that overall students' achievement was increased and they gained confidence as they felt they were improved. Teacher classroom management seemed to be improved more as students

seemed more engaged in their learning. Meanwhile, Lowden (2003) and Williams (2014) stated their finding in evaluation Level (5) was positive. However, teachers in this study responded lowest for student achievement on state or district assessment and classroom assessment, which was similar in Lowden (2003). This could be inferred that there are three National Examination in Basic Education system. At the end of Primary (Grade-5), Lower Secondary (Grade-9) and Upper Secondary (Grade-11), students usually sit the state or district wide National Examination (UNESCO-IBE, 2010). Therefore, teachers from other grade levels might not have very high perceptions on the increase of student achievement in state or district assessment.

Comparison of The Teachers' Perceptions towards School's Professional Development According to Their Demographics

In this study, researcher compared the teachers' perceptions towards school's professional development according to their demographics: age, grade level currently teaching and years of teaching experience.

From the result of testing the research hypothesis, the probability significant score of comparing teachers' perceptions by their age, grade level currently teaching and years of teaching experience are greater than 0.05. Therefore, the research hypothesis was rejected which means there were no significant differences in the teachers' perceptions towards school's professional development according to their demographics: age, grade level currently teaching and years of teaching experience at No. 26 Basic Education High School in Mandalay, Myanmar in the academic year 2015-2016. As this study compared teachers' perception of school development program according to their selected demographics, this researcher assumed that there might be some factors that seemed to manipulate the teachers' perceptions.

One of the factors might be the age of teachers. Based on the findings, there were significantly bigger numbers of older generation teachers than that of younger generation who were in the age of below 40 years. This was seemed to be the nature of Myanmar public high school for having more old generation teacher and some old teachers might be working though they were old enough to retired. According to this researcher personal experience and observation, most of the old teachers in Myanmar may less likely to aware of the nature and value of research. Some might just work for their family survival. Therefore, majority may give so called responses without taking proper determination and it may affect this study result.

Another possible factor might be the years of teaching experience. This could be because findings showed that more teachers are old, teaching in higher-grade levels with many years of teaching experience. Therefore, this might be assumed that most of them were very experience and it could be difficult to follow the new strategies that were delivered in professional development activities. Their attitudes might be rooted in what they used to believe and might have tendency of difficulty to change and reveal their own perceptions.

The previous researcher Williams (2014) also conducted a dissertation study of "Teachers' Perceptions of Professional Development Experiences" based on the Guskey's evaluation work by using Lowden's (2003) questionnaires. William

addressed three primary research objectives and major concern was to explore whether there were significant differences regarding how teacher perceived their professional development experiences based on three selected demographics such as years of experience, elementary teachers from Title I vs. Non-Title I schools and teaching position (elementary, secondary, or auxiliary). She used Independent Samples t-test for her objective 1 and 2, and One-way ANOVA for her objective 3. However, her transformed data indicated that there were no significant differences for all of her research objectives.

While two of these comparative research data showed no significant difference between the selected demographics, Lowden (2003) stated that there was a significant positive relationship between Guskey's evaluation model and the way teachers' perception about their development experience and their performance changes. The strongest correlation was found between how participants evaluated their use of new knowledge and skills (Level 4) and how far their development experience impact on students' achievement (Level 5).

Though this study found no significant differences in the teachers' perceptions towards school's professional development according to their selected demographics, all of the responses indicated positive teachers' perceptions. Therefore, this researcher considered that teachers had better to participate more in researching to know the value of research and should aware that result could support their future needs through their responses in survey.

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PREDICTIVE RELATIONSHIPS BETWEEN PHONEMIC AWARENESS, VERBAL SHORT-TERM MEMORY, AND WORKING MEMORY WITH SPELLING ACHIEVEMENT AMONG GRADE 1 STUDENTS AT THAI CHRISTIAN SCHOOL, THAILAND

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Abstract: This research investigates spelling achievement along with the ability to recognize sounds in words and the capacities to temporarily store and manipulate information in memory. The aims were to determine the levels of phonemic awareness, verbal short-term memory, working memory, and spelling achievement among 114 grade 1 students at Thai Christian School; then, to investigate if there was a predictive relationship with spelling achievement. The level of phonemic awareness was much lower (3rd percentile) than U.S. first grade students (Cummings, Otterstedt, Kennedy, Baker, & Kame'enui, 2011); verbal short-term memory and working memory levels were average; and spelling achievement was in the early to middle stage of letter name-alphabetic spelling, within the expected range for students in kindergarten to the middle of grade 2. A multiple regression analysis found significant positive predictive relationships between phonemic awareness, verbal short-term memory, and working memory with spelling achievement. Spelling achievement findings closely aligned with a developmental model, but students had a wide range of abilities, suggesting a differentiated spelling program based on developmental stages could be beneficial. Recommendations include a direct focus on teaching phonemic awareness skills as well as providing further practice with early spelling features, specifically the need to master final consonants and short vowels. Further research could improve the prediction of spelling achievement by including other measures linked to literacy, such as letter-sound knowledge.

Keywords: Phonemic Awareness, Verbal Short-Term Memory, Working Memory, Spelling Achievement, Grade 1, Thailand.

Introduction
Spelling is an especially challenging task for young students on the path to literacy (Gurney-Read, 2015). Unfortunately, English is a complicated language, particularly as there are different spellings of the same sounds and many foreign words that have been integrated into the language over the years. There are a wide variety of approaches to spelling in schools including the use of phonics, spelling programs, and lists derived from sources such as reading programs. However, there are divided opinions about teaching spelling, with some saying that the rote memorization involved is not useful, while others point to falling literacy standards to promote its importance (Gentry, 2011; Schlagal & Trathen, 1998). Spelling achievement (SA) depends on learning knowledge about spelling and being able to apply it to unfamiliar words (Kingsley, 2012).

Phonemic awareness (PA) is a student's ability to distinguish and manipulate the shortest units of sound of which spoken words are comprised, and is required in order to manipulate sounds and spell (Ebert, 2009; Good & Kaminski, 2002).

Memory is important for many academic tasks, with limited capacity for both temporary information storage and manipulation - such as the word being spelled and knowledge of spelling. This appears to make use of (1) verbal short-term

memory (VSTM) for maintaining sounds in temporary memory and learning a new language, as words that are read are subvocalized and processed in the same way as when listening; and (2) a general memory resource, working memory (WM), is required when dealing with challenging situations requiring attention, such as spelling an unfamiliar word, which is a complex process that involves combining lexical and sublexical knowledge to construct a representation of the word (Alloway & Alloway, 2010; Baddeley, 2007; Rapp, Epstein, & Tainturier, 2002).

The main significance of the study will be to improve planning and delivery of spelling instruction in Grade 1 at Thai Christian School to take into account the strengths and weaknesses identified in each of these areas. There was a lack of research into English spelling with bilingual young learners in Thailand.

The researcher wished to know: (1) Are Grade 1 students at Thai Christian School developing useful knowledge about spelling which can be applied to unfamiliar words? (2) How important for spelling is being able to recognize the separate sounds in a word? (3) Is spelling dependent upon the capacity to hold words and sounds in memory and process information?

Objectives

This research had five objectives:
1. To determine the level of phonemic awareness of Grade 1 students at Thai Christian School.
2. To determine the level of verbal short-term memory of Grade 1 students at Thai Christian School.
3. To determine the level of working memory of Grade 1 students at Thai Christian School.
4. To determine the level of spelling achievement of Grade 1 students at Thai Christian School.
5. To determine if there is a significant positive predictive relationship between phonemic awareness, verbal short-term memory, and working memory with spelling achievement of Grade 1 students at Thai Christian School.

Hypothesis

There are significant positive predictive relationships between phonemic awareness, verbal short-term memory, and working memory with spelling achievement of Grade 1 students at Thai Christian School such that the higher their phonemic awareness, verbal short-term memory, and working memory, the higher will be their spelling achievement.

Conceptual Framework

This study aimed to assess the phonemic awareness, verbal short-term memory, working memory, and spelling achievement of Grade 1 students at Thai Christian School to determine if there are significant predictive relationships with their spelling achievement. This relationship between the variables is shown in Figure 1 along with the respective instruments. It does not control for any other variables, although other factors are likely to influence spelling achievement, including

intelligence, reading ability, different teachers and extra tuition, the first language or languages spoken at home, and the level of parental involvement.

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┌─────────────────────────────────────────┐        ┌──────────────────┐
│         Phonemic Awareness (PA)          │───────▶│     Spelling     │
│ Phoneme Segmentation Fluency (Good &     │        │ Achievement (SA) │
│             Kaminski, 2002)              │        │ Primary Spelling │
└─────────────────────────────────────────┘        │    Inventory     │
┌─────────────────────────────────────────┐        │ (Bear, Invernizzi,│
│    Verbal Short-Term Memory (VSTM)       │───────▶│   Templeton, &   │
│    Digit Span Forward (Wechsler, 2003)   │        │  Johnston, 2012) │
└─────────────────────────────────────────┘        │                  │
┌─────────────────────────────────────────┐        │                  │
│         Working Memory (WM)              │───────▶│                  │
│  Digit Span Backward (Wechsler, 2003)    │        │                  │
└─────────────────────────────────────────┘        └──────────────────┘
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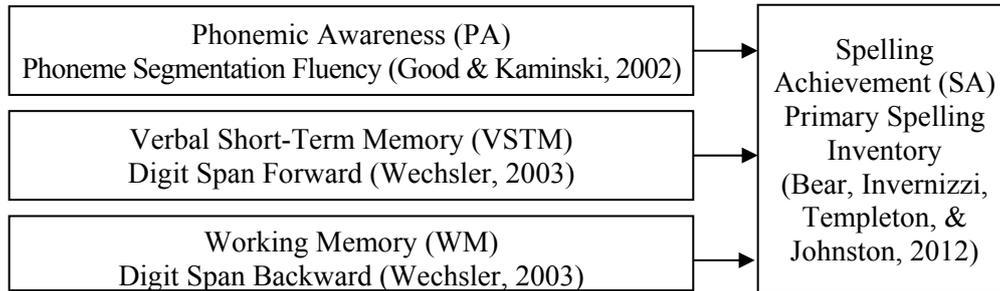
Figure 1: Conceptual Framework of The Study

Literature Review

This research was based on four theories: the developmental stages of spelling described by Bear et al. (2012) explain stages involved in learning to spell; Adams' (1990) hierarchy of phonemic awareness tasks classifies types of PA tasks by difficulty; and Baddeley's (2000) model of working memory describes the connection between short-term memory and working memory which links with the memory requirements of Rapp et al.'s (2002) model of the cognitive architecture of spelling. Previous studies of spelling achievement and connections with phonemic awareness and memory are examined. Details are provided about Thai Christian School and the Grade 1 spelling program.

Developmental Stages of Spelling

Spelling is a developmental process as students' transition from phonetic approaches only requiring knowledge of letter-sound correspondence, through to spelling within a grammatical context, which in itself requires involves levels of progression. The difficulty of spelling a word can be considered as the complexity of its spelling features and the extent of spelling development required to understand them (Nunes, Bryant, & Bindman, 1997).

The way students' progress towards becoming proficient spellers can be described by stages; Bear, Invernizzi, Templeton, and Johnston (2012) described five developmental stages of spelling. The stages are not fixed to specific ages and have some overlap, but they identify the extent of students' understanding of spelling. Grade 1 learners are likely to operate within the first three stages: (1) *emergent spelling* - students learn to use initial and final consonants; (2) *letter name-alphabetic spelling* - final consonants, short vowels, digraphs, and blends; and (3) *within word pattern spelling* - blends, common long vowels, other vowels, and inflected endings. School grade levels for these stages are shown in Figure 2

. The stage model provides a framework for assessing spelling achievement (SA) by awarding points for spelling features that correspond to successive developmental stages; alternative assessments use a scale such as 0 to 4 (Mann, Tobin, & Wilson, 1987) or 0 to 6 (Tangel & Blachman, 1995) for the completeness and sophistication of an attempt to spell.

Grade Level					
Pre-K	K	1	2	3	4

Stage 1: Emergent

Stage 2: Letter Name-Alphabetic

Stage 3: Within Word Pattern
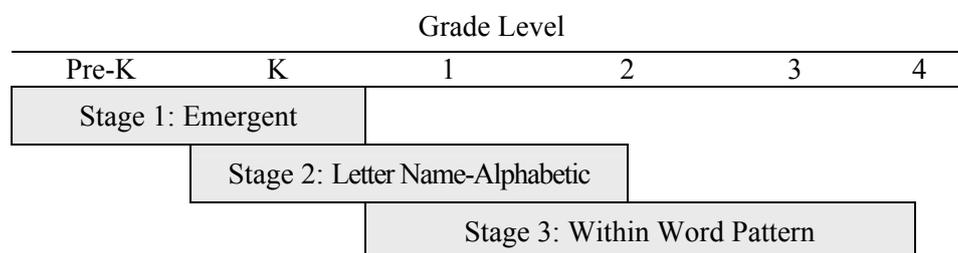
Figure 2: Developmental Stages of Spelling; Adapted From Bear et al. (2012)

Hierarchy of Phonemic Awareness Tasks
Phonemes are the short spoken sounds of a language which combine to form syllables and are represented in writing by a single letter or combination of letters. In English, there are about 40 phonemes and 250 ways to spell them (University of Oregon Center on Teaching and Learning, 2002). Adams (1990) described phonemic awareness (PA) as the capacity to recognize - requiring a conscious effort - that a spoken word is composed of distinct sounds smaller than a syllable (phonemes) which can be separated and altered to form new words. Adams classified PA tasks into five categories of increasing difficulty: (1) saying nursery rhymes, (2) identifying similar and dissimilar sounds, (3) blending phonemes to form words and splitting words into syllables, (4) segmenting words into phonemes, and (5) manipulating phonemes by adding, removing, or reordering phonemes to form new words. A suitably challenging task for assessment of PA can be selected on the basis of this hierarchy.

Wei (2005) found that PA in Thai primary school students transferred to English, which was consistent with studies on Chinese and Spanish, which also have different phonological structures to English.

Working Memory and the Phonological Loop
Memory has remained a topic of interest due to its broad influence on learning, especially the core skills of numeracy and literacy (Bull, Espy, & Wiebe, 2008).

The working memory model proposed by Baddeley and Hitch in 1974 originally included three components, with a fourth added by Baddeley in 2000, all of which have limited capacities (Baddeley, 2000, 2007). This model has relevance as it has been supported by research specifically with children (Alloway, Gathercole, & Pickering, 2006). The components are (1) the central executive - a system which controls the three other systems and is responsible for attention and processing in complex non-routine tasks associated with working memory (WM),

(2) the phonological loop - a system for temporary storage of phonological information, assisted by a rehearsal mechanism which gives rise to verbal short-term memory (VSTM), (3) the visuospatial sketchpad - a system for temporary storage of visual and spatial information, and (4) the episodic buffer - an additional temporary storage system which allows for integration between the other systems and long-term memory. A diagram of the working memory model is shown in Figure 3. The model justifies the different types of tasks required to separately assess VSTM and WM.

Working memory in children increases with age, but the change is relative to earlier capacity, so a student with low WM will remain comparatively low. Both VSTM and WM seem to be relatively unaffected by preschool education and mother's level of education. WM has been found to be significantly related to learning and can be described as a measure of "learning potential" (Alloway & Alloway, 2010, p. 27) in comparison to prior learning which can be reflected in IQ tests; children with lower WM may become overwhelmed by tasks.
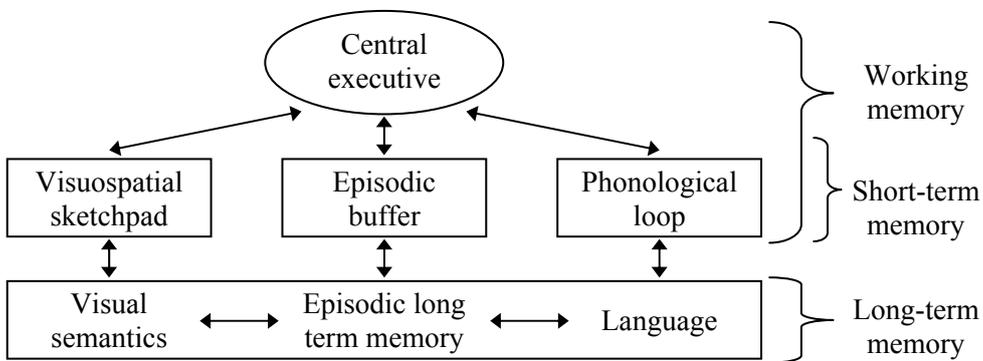
Figure 3: Working Memory Model; Adapted From Baddeley (2000)

A widely accepted assessment of VSTM is the recall of a sequence of digits, referred to as dit span (Gathercole & Pickering, 2000). This is done by the examiner reading aloud a list of randomly ordered, non-repeating digits for immediate recall, which is repeated with lists of increasing length - this is a Digit Span Forward (DSF) task. It is assumed that aurally presenting the numbers avoids the need for subvocalization of written numbers and is therefore the most direct means of accessing VSTM (Baddeley, 2007). Instead of recalling numbers in the same order, the list can be repeated from last to first, which is called Digit Span Backward (DSB). Researchers do not always agree on precisely what is measured by DSB - whether it is VSTM or WM - but there is a growing body of evidence that, in children, DSB is a measure of WM due to the processing requirements of reversing the sequence (Alloway et al., 2006; Colliflower, 2013; Gathercole & Pickering, 2000).

Cognitive Architecture of Spelling

An insight into what types of processing demands are placed on working memory is given by Rapp, Epstein, and Tainturier's (2002) model of the cognitive architecture of spelling. It describes dual processing tasks that utilize long-term memory of words, as well as non-word sound information. This goes through a final maintenance and processing phase to piece together the correct spelling.

Previous Studies of Spelling Achievement

Phonemic awareness (PA) - or the broader term, phonological awareness, which includes longer sounds such as syllables - has been found to correlate with spelling in a number of studies, some of which also included verbal short-term memory (VSTM). The National Institute for Literacy (2008) found an average PA correlation of .40 (21 studies, 2,522 children) and .31 for VSTM (10 studies, 1,520 children). Yopp (1995) reported PA correlations in the .44 - .60 range for students between second and sixth grade, whereas Milwidsky (2009) found that, with first grade South African students, PA and VSTM did not correlate with first language students, but did in second language students. Lafrance (2007) also found English language learners had higher correlations for VSTM (.32 - .36) and PA (.49 - .61). Research by Alloway et al. (2004) and VanLoo (2003) indicated that the distinction between PA and VSTM and their relationship to spelling decrease with age as students become more proficient at spelling.

Regarding studies on working memory (WM), a study that included spelling as a measure of literacy in combination with reading found correlations of .52 for WM and .40 for VSTM at age 7 (Gathercole & Pickering, 2000). When assessing spelling alone, correlations of .36 for WM and .38 for VSTM have been reported (Alloway & Alloway, 2010). Jongejan, Verhoeven, and Siegel (2007) found WM to be a predictor of spelling ability in grade 1 to 4 students whose first language was English, but attributed a lack of prediction for second language students to their WM task requiring memory of English words in sentences.

Overall, recent research supports a link between SA and VSTM, WM, and PA, but the extent may vary according to age and English language learner status.

Background of Spelling at Thai Christian School

Thai Christian School was established in 1968 by the Sapan Luang Christian Church Foundation and has approximately 1,000 kindergarten to twelfth grade students. In 1998, an English Program was started, and, beginning in 2010, the Thai Program was phased out. Most grades in the primary level have four classes of approximately 30 students of mixed sex and mixed ability. In grade one to three, English program lessons are by taught by native English speakers and include 6 periods of English, 3 of mathematics, 3 of science, and 1 each of health, social studies, and computer, totaling 15 periods of 50 minutes per week.

Although spelling is regarded as important at Thai Christian School, no commercial program has been used. At the start of the 2015-16 academic year, the researcher made significant changes to the Grade 1 spelling program. The goal was to support students' daily reading and writing, centered on their textbook, *English World 1* (Bowen & Hocking, 2009). Phonics lessons were taught using *English*

World 1 and *Phonics Fun 1 & 2* (Bunton, 2003) which covered consonants, short vowels, and some digraphs (*ch*, *sh*, *th*, *wh*, *ck*, *ll*, *ng*); blends were taught informally during day-to-day instruction. Students used verb+ing words in the final unit of *English World 1*, but this did not include spelling rules.

With the Grade 1 spelling program, 10 words were given each week for 22 weeks during the year, totaling 220 spelling words. Each week included 3 phonics words, of the form consonant-vowel-consonant, taken from their books: *Phonics Fun 1 & 2* or *English World 1*; 3 *common words* from the top 200 *high-frequency words in phases* (Department for Education and Skills (England), 2007); and 4 *vocabulary words* from *English World 1*.

In a typical week, spelling words are presented for students to record in a booklet and learn for homework; words are practiced with games as a class and written by copying the words onto the top of a piece of paper before folding it over and trying to recall the spelling; a test including 5 review words is given on Fridays. A marking scheme recognizing partially-correct words (Mann et al., 1987) is used, so that 0 - 4 points are available for each word.

Method

To investigate the relationship between the three independent variables (PA, VSTM, and WM) with the dependent variable (SA), this quantitative research collected data on Grade 1 students at Thai Christian School by using four assessments to measure PA, VSTM, WM, and SA respectively. After analyzing the descriptive statistics (*M* and *SD*), the data was used in a multiple regression analysis to determine if PA, VSTM, and WM could predict SA.

Population and Sample

This research used a population sample of all Grade 1 students in Thai Christian School at the end of the academic year (May 2015 to February 2016). There were four Grade 1 classes, two classes with 28 students in each and two with 29, for a total of 114 students. The classes were of mixed ability and mixed gender with 58% boys and 42% girls in total. The students mostly speak Thai as their first language (84% have only Thai parents) but received 15 periods per week of instruction by a native English speaker. There were 10 students with a parent from countries where English is not an official language (Japan, South Korea, Vietnam, Norway, and France) and 8 had a parent from India, Hong Kong, the UK, or the USA.

All 114 students were included as although each class had a different teacher responsible for lessons in English, during the year, the teachers followed the same lesson plans, used the same teaching materials, and gave the same assessments.

Research Instruments

This research uses three standardized instruments described in detail below. Phoneme Segmentation Fluency (PSF) (Good & Kaminski, 2002) is used to assess phonemic awareness (PA), Digit Span includes a forward task (DSF) and a backward task (DSB) (Wechsler, 2003) that assess verbal short-term memory (VSTM) and working memory (WM) respectively, and the Primary Spelling Inventory (PSI) (Bear et al., 2012) assesses spelling achievement (SA).

Instrument 1: Phoneme Segmentation Fluency for PA
The Phoneme Segmentation Fluency (PSF) task (Good & Kaminski, 2002) was selected to measure the level of Phonemic Awareness (PA); it consists of 24 words that each contain 3 to 5 phonemes. It is part of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) collection of assessments widely used in the USA. It was selected due to the suitable difficulty according to the hierarchy of PA tasks described by Adams (1990), as well as availability of data on large numbers of students in kindergarten and first grade. Another benefit is the detailed scoring rubric which gives partial credit for incomplete segmentation.

Scores on the PSF task are interpreted in two ways. (1) There is a benchmark level of 33 points out of 80 set for kindergarten students in their second term; scoring below 28 may indicate a need for intensive support, or strategic support to reach the benchmark level if in the 28 to 32 point range (Good & Kaminski, 2014). (2) A table to determine performance in terms of percentile ranks is published in Cummings, Otterstedt, Kennedy, Baker, & Kame'enui (2011) for each term of kindergarten and first grade. Both the benchmark level and percentiles are based on data from students in the USA.

Instrument 2: Digit Span (Forward and Backward) for VSTM and WM
There are two sections to the Digit Span task (Wechsler, 2003), Digit Span Forward (DSF) and Digit Span Backward (DSB). DSF was used as a measure of verbal short-term memory (VSTM), whereas DSB was used for working memory (WM). It was standardized on 2,200 children (Flanagan & Kaufman, 2004) and the validity of DSF and DSB tasks as measures of VSTM and WM respectively with children has been established (Alloway et al., 2006; Reynolds, 1997; St Clair-Thompson, 2010). Interpretation of a DSF or DSB score from a raw score (0 to 16 points) is done by converting to a scaled score (between 1 and 19, where 10 is equivalent to a standard deviation of 0 from the mean) based on the results of students on whom the task was standardized (Wechsler, 2003); there are corresponding percentile ranks for scaled scores (Weiss, Saklofske, Prifitera, & Holdnack, 2006) and suggested descriptors for each range (Pearson Assessment Support, 2010).

Instrument 3: Primary Spelling Inventory for SA
The Primary Spelling Inventory (Bear et al., 2012) is a developmental spelling assessment used for kindergarten to grade 3. It was selected to assess spelling achievement (SA) based on its use in schools, high reliability, inclusion of a good number of words which would allow students to demonstrate what they had learned from their phonics lessons, and being able to interpret scores in terms of progress with specific spelling features.

The PSI score is the number of points for words spelled correctly added to the number of feature points. Qualitative interpretation is based on (1) the number of words spelled correctly and (2) the number of feature points missed. The number of words spelled correctly gives a score out of 26 to indicate an overall level of spelling development. Second, scores out of 7 for each spelling feature on the rubric are examined: a student who missed 1 point is ready to learn more complex spelling features; missing 2 to 3 points needs further development; missing more than 3

points needs further instruction; and a student missing all 7 points needs to study earlier features instead (Bear et al., 2012).

Validity and Reliability
The reported reliability statistics for these instruments are shown in Table 2 alongside the reliabilities in this research: The reliability for the PSF task was very high, .08 higher than reported (Good & Kaminski, 1996); both Digit Span tasks were very similar to the reported values (Flanagan & Kaufman, 2004), .06 lower for DSF and .04 lower for DSB; and the PSI task was .11 lower than reported (Bear et al., 2012) but still reliable.

Table 2: Reliability Statistics for the Research Instruments

Instrument	Reliability		
	Statistic	Reported	This Research
1. Phoneme Segmentation Fluency (PSF)	Split-half	.88	.96
2. Digit Span Forward (DSF)	Split-half	.83	.77
Digit Span Backward (DSB)	Split-half	.80	.76
3. Primary Spelling Inventory (PSI)	Cronbach's alpha	.93	.82

Collection of Data
Data collection was performed in two phases. (1) For each of the 114 students, the researcher carried out the one-on-one PSF task followed immediately by the DSF and DSB tasks. The researcher sat opposite the student and used a clipboard when noting responses. Each student required approximately 6 minutes in total and the researcher spent 1 to 2 hours per day for 9 days collecting data. (2) The PSI was given at the same time to each of the four classes by the four English teachers (including the researcher).

Phoneme Segmentation Fluency (PSF)
The researcher said words from the list for the student to say the individual phonemes. For example, *leaned* should be segmented into 4 phonemes, /l/ /ea/ /n/ /d/. After giving the instructions to the student, which included practice with an example word, *mop*, the researcher timed 1 minute during which the student segmented as many words as possible.
The PSF task is scored on the basis of 1 point per correct segment, hence, *leaned* has a maximum score of 4 points, however, the scoring rubric also recognizes partial segmentation, for example, /l/ /eand/ would receive 2 points.

Digit Span Forward and Backward (DSF and DSB)
With the DSF task, the researcher gave the instructions to the student, and practiced with the student repeating first one digit and then a sequence of 2 digits in the order given. The researcher spoke the digits with 1 second between each one. If the student was able to repeat one or both sequences of digits at a certain length, then the researcher progressed to the next pair of sequences which were one digit longer

and continued in this manner until the student was unable to correctly repeat either sequence. One point was scored for each correct sequence, with a maximum score of 16 points.

The procedure for the DSB task differed in that the numbers must be repeated in reverse order, from last to first. After giving instructions, it was practiced twice with sequences of 2 digits (Flanagan & Kaufman, 2004; Meador, Turner, Lipsey, & Farran, 2013).

Primary Spelling Inventory (PSI)
The PSI consists of 26 words, ordered in terms of increasingly more advanced spelling features, which were read aloud for students to write down the spelling. Scoring was done by the researcher using the rubric which awards points for specific spelling features in each word and one point for correctly spelling the whole word. According to guidance on common confusions in scoring (Bear et al., 2012), students were not penalized for writing letters in a reversed manner, such as *b* and *d*, and credit was given for correctly representing features even if letters were not in the correct order or if additional letters were added - although in the latter two cases the point for correctly spelling the word would not be given.

Findings
The first four findings are the levels of students' phonemic awareness (PA), verbal short-term memory (VSTM), working memory (WM), and spelling achievement (SA). The fifth finding is the predictive relationship between the variables with spelling achievement.

Levels of PA, VSTM, WM, and SA
The level of phonemic awareness (PA) was below the kindergarten benchmark of 33 points (M = 24.90, SD = 12.47) and well-below average (3rd percentile) compared to U.S. first grade students (Cummings et al., 2011).

The level of verbal short-term memory (VSTM) (M = 7.72, SD = 1.94) was average (0 to 0.67 SDs above the standardized mean).

The level of working memory (WM) (M = 4.99, SD = 1.57) was average (0 SDs from the standardized mean).

The level of spelling achievement (SA), from the number of words spelled correctly and feature points put students at an early to middle stage of letter name-alphabetic spelling. The feature scores categorized students as near to mastering initial consonants; needing further practice with final consonants and short vowels; needing further instruction regarding digraphs and blends after mastering earlier stages; and common long vowels, other vowels, and inflected endings were well-beyond their stage of development (see Table 3).

Table 3: Primary Spelling Inventory (PSI) Scores

PSI Score		*M*	*S.D.*	Min.	Max.
Total / 82 points		25.11	12.20	0	58
Correct Words / 26 points		3.77	2.96	0	15
Feature (7 points each)	Spelling Stage Range				
1. Consonants: initial	Emergent (L)	5.68	1.73	0	7
2. Consonants: final	Emergent (L) - Letter name-alphabetic (E)	4.90	1.98	0	7
3. Short vowels	Letter name-alphabetic (E) - Letter name-alphabetic (M)	4.64	1.81	0	7
4. Digraphs	Letter name-alphabetic (M) - Letter name-alphabetic (L)	2.43	1.91	0	7
5. Blends	Letter name-alphabetic (L) - Within word pattern (E)	2.25	2.23	0	7
6. Common long vowels	Within word pattern (E) - Within word pattern (M)	0.46	1.05	0	5
7. Other vowels	Within word pattern (M) - Within word pattern (L)	0.55	0.94	0	4
8. Inflected endings	Within word pattern (L) - Syllables and affixes (E)	0.42	0.69	0	3

Notes. (E) = early stage, (M) = middle stage, (L) = late stage.

Predictive Relationships

To see if PSF, DSF, and DSB scores (as measures of PA, VSTM, and WM respectively) predicted the score on the PSI (as a measure of SA), a multiple regression was performed using a stepwise method for entry of variables.

Linear relationships, multicollinearity, normal distributions, homoscedasticity, normally distributed errors, and outliers were checked:

  1. The DSB data was found to be moderately non-normal regarding both skewness ($z = -5.17$) and kurtosis ($z = 5.99$); a square-root transformation was chosen to improve the normality by first making a reflection by subtracting each value from the greatest value, 8, adding 1, taking the square root, then reflecting back to the original order by multiplying by negative 1: the transformed square root of DSB (Sqrt.DSB) had acceptable skewness ($z = -1.30$) and kurtosis ($z = 2.86$).

  2. A moderate lack of homoscedasticity was corrected with a square root transformation of the PSI data (Sqrt.PSI) by first adding 1 to shift values to 1 or greater.

  3. No outliers were excluded; outliers were identified from their covariance ratio (CVR) values, but none were identified by other measures (Cook's distance, leverage values, Mahalanobis distances, and standardized DFBeta values).

PA, VSTM, and WM were significant predictors of SA. The model accounted for 44% of the variance in SA. Table 4 shows the results of the multiple regression analysis of PSF, DSF, and Sqrt.DSB with Sqrt.PSI.

Table 4: Multiple Regression Analysis for Variables Predicting Spelling Achievement

Variable	B	$SE\ B$	β	Sig.
PSF	0.05	0.01	.52***	.000
DSF	0.14	0.05	.21**	.006
Sqrt.DSB	0.66	0.25	.19**	.009
(Constant)	3.83	0.67		.000
R^2	.44			
F	28.52***			

Notes. Sqrt.PSI = Primary Spelling Inventory (PSI) corrected for borderline homoscedasticity with a square-root transformation; PSF = Phoneme Segmentation Fluency; DSF = Digit Span Forward; Sqrt.DSB = DSB corrected for normality with a square-root transformation.
$N = 114$. **$p < .01$. ***$p < .001$.

Table 5 gives correlations for the interpretation of each variable's contribution: the zero-order correlation is Pearson's r where all variables are allowed to vary and is therefore not a unique contribution; the partial correlation relates to the unique variance when all other variables are controlled for in the independent and dependent variables; the part correlation (or semi-partial correlation) is related to the total variance as it includes both the unique and joint contribution when other variables are controlled for in the independent variable alone. Differences in the various correlation values can indicate the relationship with the other independent variables (Field, 2009; Garson, 2014).

Table 5: Multiple Regression Correlations with Sqrt. PSI

Variable	Correlation		
	Zero-order	Partial	Part
PSF	.59	.56	.50
DSF	.35	.26	.20
Sqrt.DSB	.30	.25	.19

Further Finding: Trends in Spelling Achievement
Following the regression, the researcher was interested in visualizing how students' actual SA related to combinations of high and low levels of PSF, VSTM, and WM. This was problematic given that the model only accounted for a moderate amount of variance, thereby tending to mask obvious trends. The researcher reduced this problem of interpreting combinations of levels by grouping data under simple descriptions using ranges of values that created groups of roughly equal sizes: VSTM and WM performance with z scores above 0 were designated as high, and below 0 as low; PSF performance was better correlated with PSI, so the researcher split this into 3 groups of cases being low ($z < -0.5$), medium ($-0.5 < z < 0.5$) and high ($z > 0.5$). The results are shown in Figure 4, where the boxplots show PSI scores for low, medium and high PSF levels (PSF Group) when also grouped as

having (1) both low VSTM and WM, (2) low VSTM or low WM, and (3) both high VSTM and WM.
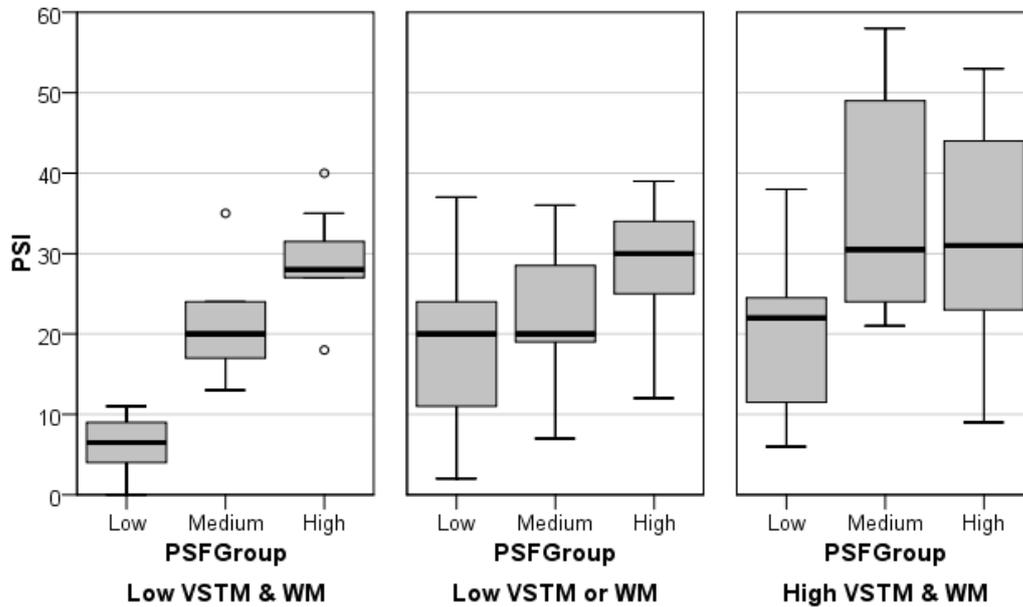
Figure 4: Spelling Achievement Grouped by Performance on Other Variables

Conclusions

The level of phonemic awareness (PA) was much lower than U.S. first grade students (Cummings et al., 2011); verbal short-term memory (VSTM) was at or slightly above an average level; working memory (WM) was at an average level; and spelling achievement (SA) was within the expected range for kindergarten to the middle of grade 2.

Multiple regression showed PA, VSTM, and WM were all significant predictors of SA with positive relationships, therefore the hypothesis is accepted at the .05 significance level. The model accounted for a moderate amount of variance in SA; PA accounted for the greatest variance; VSTM and WM accounted for similar but lesser amounts.

Discussion

Phonemic Awareness

Phonemic awareness (PA) was in an average range for U.S. kindergarten students, but well-below average for first grade students (Cummings et al., 2011). U.S. students would receive PA instruction, including intervention if below the benchmark level, (Good & Kaminski, 2014) and would gain familiarity with testing. A lack of familiarity with the words in the test in comparison to native speakers may require more VSTM and WM. Although Wei (2005) found PA in Thai primary

school students transferred to English, the researcher observed issues with Thai language interference, particularly final consonants, and both long and short vowel sounds seemed challenging, although this may be due to a lack of practice with producing these sounds in isolation (Adams, 1990).

Verbal Short-Term Memory and Working Memory
Levels of VSTM and WM were at expected average levels as literature indicated they are relatively unaffected by prior learning (Alloway & Alloway, 2010). Using English numbers in the tasks did not appear to be a problem as students were sufficiently familiar through math and English classes, but, students with weaker English may have been limited.

Spelling Achievement
The mean performance on each spelling feature, as shown in Table 3, was consistent with the developmental stages model (Bear et al., 2012). The number of words spelled correctly and feature point analysis indicated students were, on average, in the middle of the letter name-alphabetic spelling stage of development, but the more detailed feature point analysis indicated the range was from the early to middle part of the stage. Based on the mean feature points missed, students were near to mastering initial consonants, but needed further practice with final consonants and short vowels.

With initial consonants (feature 1), 11% of students missed more than 3 points (indicating a need for further instruction or to study earlier features), who were therefore still in the late emergent stage (see Table 3) and probably need intensive support to ensure they are able to catch up. With final consonants (feature 2) in the late emergent to early letter name-alphabetic stage, 18% missed more than 3 points. With short vowels in the early to middle letter name-alphabetic stage (feature 3), 26% missed more than 3 points. For feature 1 to 3 respectively, 69%, 46%, and 35% only missed 0-1 points (ready to move on). The researcher had expected more students to be at the point of moving on beyond feature 2 and 3; most students were within 2 points of a full score for feature 2 (72%) and feature 3 (61%), so students were nearing mastery.

Regarding later developmental features, mean scores placed students as needing further instruction on digraphs and blends (feature 4) once they mastered earlier steps; common long vowels (feature 5), other vowels (feature 6), and inflected endings (feature 7) were well-beyond their stage of development. However, there were students who achieved scores at the level of 2-3 points missed (needing review): 22%, 12%, 4%, and 2% for feature 4 to 7 respectively; 7% were ready to move on from feature 4 and 12% from feature 5. Although the mean score put students at the early to middle of stage 1, typical of kindergarten or first grade, a small percentage of students were spelling at a first to second grade level.
Considering only the phonics topics in the Grade 1 English curriculum at Thai Christian School (consonants, short vowels, and digraphs), students might have had the knowledge to score 7 out of 7 on initial consonants, final consonants, short vowels, and digraphs, and spell 5 words correctly (*fan*, *pet*, *dig*, *rob*, and *gum*), giving a PSI score of 33 points. Compared with the feature points missed in these

categories, the greatest need for improvement was with digraphs; short vowels were slightly more problematic than final consonants. The mean score was 2.89 words spelled correctly on those 5 specific words; this could be expected from a lack of mastery of vowels and final consonants. The mean PSI score was 25.11 points and 20.54 if limited to the expected features and words, equivalent to 62% of the 33 points, indicating a need to further develop these spelling skills.

The impression the researcher described earlier regarding the PSF task and difficulty with final consonants is evident when comparing initial and final consonant performance, so this may be a broader weakness connected with PA and Thai language interference, rather than spelling knowledge alone.

Predictive Relationships with Spelling Achievement

The proportion of variance (R^2) in SA explained by the three independent variables in the model was 44%, which is moderate to low.

The ratios of the standardized regression coefficients (beta weights) in Table 4 show that VSTM and WM had a similar importance in predicting SA, but PA was almost three times more important. Previous studies almost all reported finding significant correlations between the independent variables in this research with spelling. PA correlations ranged from as low as .33 to .61, with an average of .47; here the zero order, partial, and part correlations for PA were .50 to .59, which are at the higher end of the range, similar to findings of higher correlations for second language students reported by Lafrance (2007) and with younger kindergarten and first grade students (Puranik & AlOtaiba, 2012).

A lack of correlation between DSF and DSB ($p = .14$ and non-significant at the .05 level may support the position of previous researchers (Alloway et al., 2006; Colliflower, 2013; Gathercole & Pickering, 2000) that DSB is a WM task, rather than VSTM, in the case of young children due to high processing requirements.

Previous studies reported VSTM correlations in the range of .31 to .40, with an average of .35, which is the same value as the zero-order correlation in this study, with the lowest value being the part correlation of .20.

Values for WM correlations in other research were reported as .36 and .52, with an average of .44. In this research it was lower, .19 to .30. However, both WM correlations reported in previous research were composite literacy scores which included both spelling and reading; there could be greater demands on WM from reading than spelling, which would be true if the reading task involved more complex processing (Milwidsky, 2009). Potentially the correlation was lowered due to the difficulty of the DSB task for young students, since first grade is the youngest age where a DSB task would be used (Weiss et al., 2006). Students may be under-utilizing WM if they rely more on a sub lexical approach of converting sounds to letters than considering lexical information: meaning and knowledge of spelling frequencies /patterns (Rapp et al., 2002).

Students with low SA but normal PA seemed to lack phonics skills to write the sounds they heard (e.g., *fan = flv, dig = dye, rob = loy*). Students with low SA and low PA seemed unable to spell little more than the first letter of a word and perhaps a vowel, if at all (e.g., *dig = den, rob = ron, stick = bet*).

Students with high SA and PA scores may have mastered earlier spelling stages and be capable of moving on, but are yet to have learned sufficient knowledge to make that step: 2 students only scored 1 or 2 feature points on *common long vowels*, but had almost all full scores on features in earlier stages. Students with high SA but low PA managed to perform better than predicted - their fluency may have been sufficiently high for these non-time-limited spelling tasks and previous research indicated that PA may be less correlated where phonics becomes less important in higher stages of spelling development; 4 students in this category mostly scored 3 or 4 feature points for *common long vowels* and *other vowels*, putting them in the middle of the third stage (within word pattern spelling), although 2 lower scoring students needed more practice with digraphs (stage 2, letter name-alphabetic spelling) as they still made some mistakes such as interchanging *ch* and *sh*.

From a teaching point of view, that VSTM and WM were much less important than PA is good news, as large increases in PA appear possible during kindergarten and first grade if students practice and, if necessary, receive intensive support to meet benchmark levels (Good & Kaminski, 2014); in contrast, memory capacities are difficult to change as they are relatively unaffected by prior learning (Alloway & Alloway, 2010).

Further Finding: Trends in Spelling Achievement
Figure 4 displayed interesting trends which may have practical relevance in the classroom. Lower levels of either or both VSTM and WM do not seem to limit students to low SA, however, no student in these groupings scored above 40 on the PSI, compared with 10 students with both high VSTM and WM who scored 44 - 58, which could indicate this is advantageous in spelling development. Low PA did not appear to limit SA, however low PA groups contained some of the lowest SA scores. With low VSTM and WM, students performed around 10 points better with each increase in the level of PA; students with the combination of low PA, VSTM, and WM had very low SA. Medium and high PA level groups with high VSTM and WM had the highest SA, but the medium and high groups had similar scores; in contrast, the low PA group performance was much lower, similar to the low PA-low VSTM/WM group or medium PA-low VSTM&WM group.

Model Improvements
The PSF task was a reliable instrument, but an alternative which is not timed may be more consistent with SA, since there were no time limits for the PSI task and some of the highest spellers did not have particularly high PSF scores and PSF scores can reflect speed as much as accuracy, yet in this study spelling is focused on accuracy.
The model could only account for 44% of the variance in SA, so a more complete model needs to include additional predictors. Likely to be next biggest predictor is letter-sound knowledge (phonics) for written representation of sounds, but this would require great care to accept all possible correct answers (Treiman, Tincoff, Rodriguez, Mouzaki, & Francis, 1998).

Another possible inclusion in the model is reading ability as an indication of exposure to printed text, since correlations have been reported between reading and spelling (Bear et al., 2012). Emergent spellers' base their writing on properties of text they have seen (Pollo, 2008) and vocabulary size is connected to spelling and reading (Invernizzi & Hayes, 2004).

A further addition could be visual memory: visuospatial short-term memory. There is very little literature which directly relates spelling with visual learning, yet Alloway et al. (2006) indicated that 4 - 6 year-old children make greater use of this resource. It might help explain cases where students are weaker in VSTM or PA but have a higher SA than expected.

This research used multiple regression to investigate a linear model of predictive relationships with SA, but nonlinear models could also be explored.

Recommendations

Recommendations for Teachers

Students do not necessarily need a high level of phonemic awareness (PA) to spell well, but it appears to be advantageous. Students can learn and practice skills for PA specifically, not only letter-sound correspondence in phonics. This has the potential to increase the ability of students to accurately and quickly identify sounds in words. Differences between Thai and English appear to be problematic for students when trying to segment words.

Lower levels of verbal short-term memory (VSTM) and working memory (WM) are not necessarily barriers to good spelling achievement (SA), but, in combination with low PA, such students could be expected to have very low SA; they are likely to need support to improve their SA as they will probably struggle to sound out letters on their own. Conversely, students with high VSTM and WM in combination with medium to high levels of PA may have the highest SA potential.

Some students can benefit from further practice in early spelling features (final consonants and short vowels) before receiving additional instruction on digraphs, which were much more challenging for most students. Students had a similar level of knowledge of blends as digraphs, even though these had not been specifically taught. A developmental spelling test such as the PSI can provide useful insights into students' spelling achievement outside of the context of weekly spelling tests.

Recommendations for Administrators

A wide range of spelling achievement (SA) can exist among students in the same grade level, which suggests that differentiated levels of spelling instruction could be used, even with young non-native English speakers, as some students may need more practice with early spelling features while others may have mastered those and more.

In addition to phonics instruction, phonemic awareness (PA) can be taught from a very young age as there are easier PA tasks than segmentation. Beginning earlier could provide time for improvement and support the transition from emergent to letter-name alphabetic stages so that students are ready to move on to the within

word pattern stage by the end of first grade. Low PA may be problematic for SA, so a minimum standard could be set to identify students in need of support.

A spelling program based on developmental stages of spelling could be the most efficient way of helping students, as findings in this research were consistent with an orderly progression through specific stages of development.

Recommendations for Future Research

The instruments used for this research were suitable, but could be modified:

1. A PSF training session could enable students to perform nearer their full potential on the first assessment, however, accuracy rather than fluency in PA should better match with SA, which was not time-limited. Using made-up words could eliminate a possible advantage of segmenting words within the vocabularies of some student.

2. Digit span tasks could be performed in a student's native language. They could be repeated at a later date or the number of trials at each length could be increased to ensure assessment was not affected by a momentary lapse in concentration.

A more complete model of SA, may include: (1) letter-sound knowledge, (2) vocabulary size, (3) visuospatial short-term memory, (4) first language or languages spoken at home, and (5) parental involvement and/or time doing spelling homework. Alternative models could be investigated using methods such as a nonlinear multiple regression analysis.

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THE USE OF A MOTIVATIONAL INTERVIEWING INSTRUMENT TO ENHANCE ACADEMIC SELF-EFFICACY AND ACADEMIC MOTIVATION OF UNDERGRADUATE STUDENTS AT ASSUMPTION UNIVERSITY

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Abstract: The efficacy of the Brief Academic Motivational Instrument (BAMI) as an intervention in enhancing the academic self-efficacy and academic motivation of university students was tested. The BAMI is a paper based semi-structural Motivational Interviewing (MI) tool that aims to increase student motivation to change studying habits. Participants consisted of 40 undergraduate students, their age ranged from 18 to 32 years old (mean age 21.23), recruited through convenience sampling at Assumption University, Thailand. Participants were randomly assigned to the BAMI experimental group (*n*=20) and the non-intervention control group (*n*=20). All participants completed pre and post questionnaires, which the participants self-reported their academic self-efficacy and academic motivation. The investigator went through the BAMI with the experimental group participants after the pretest. All posttests were collected via internet survey 10 days after the pretest. MANOVA for repeated measures analysis was conducted to test the efficacy of the BAMI intervention against a no intervention control group. The results indicated there were no significant differences in academic self-efficacy and academic motivation between the experimental and control group at the posttest, suggesting that the BAMI intervention was ineffective. The insignificant results could be influenced by the timing of the data collection, nature of the sample population, cultural differences, prescreening ineffectiveness, the small sample size and possible language concerns. Further research needs to be conducted in order to further evaluate the effectiveness of the BAMI or similar devices for increasing academic self-efficacy and academic motivation.

Introduction

School counselors identified underachieving students as one of the most challenging to work with because these students are capable of succeeding academically, but are unmotivated (Bleuer, 1987). Educators and researchers have been examining the contributing factors of motivation and methods of increasing motivation. When motivation is present, engagement is also observed. Active engagement in school is critical to a student's academic success; students with higher engagement are better adjusted to school and achieve higher academic grades (Wang & Peck, 2013). Cognitive engagement is otherwise referred to as Self-Regulated Learning (SRL).

The Motivational Interviewing (MI) counseling technique was first introduced in 1983 by William Miller, and has proved to be successful in facilitating positive change with alcoholics (Miller & Rollnick, 2002). MI is a collaborative counseling technique, where the counselor helps the client to clarify his or her ambivalence, values and goals, and further strengthens the client's self-efficacy to change. Its applications have been extended to the academic settings, such as a basis for decreasing behavioral concerns which interfere with academic success (Frey et al.,

2011), as an intervention to enhance academic achievement of middle school and college students (Duffy & Rimmer, 2009; Strait, 2011), motivating underachieving high potential adolescents (Richer, 2012), reducing students' school truancy (Enea & Dafinoiu, 2009) and, facilitating reeducation with problematic behavior of disaffected students (Kittles & Atkinson, 2009).

With research supporting MI as a way to facilitate change in students, it may be helpful as a brief intervention for school counselors to successfully help increase learning in unmotivated or underachieving students.

Objectives

The purpose of this study is to assess the efficacy of a modified version of the Self-Administered Motivational Instrument (SAMI), known as the Brief Academic Motivational Instrument (BAMI), as a Motivational Interviewing (MI) tool to enhance the academic motivation and academic self-efficacy of students. Through this MI based tool, the investigator hopes to encourage students to reflect on their study choices, find solutions to change, consider possible obstacles they may encounter and solutions to remove those obstacles.

Literature Review

An overview of academic motivation, Self-Regulated Learning (SRL), academic self-efficacy and Motivational Interviewing (MI) will be reviewed. In addition, recent empirical researches on the integration of MI in the academic setting are reviewed followed by the research question, hypothesis and conceptual model of this investigation.

Academic Motivation plays a large role in the prediction of achievement and learning; thus research has been conducted in this area in the hope of understanding the underlining motivation processes. According to Pintrich and Zusho (2002), "academic motivation refers to internal processes that instigate and sustain activities aimed at achieving specific academic goals." The social cognitive model suggests that motivation is dynamic and multidimensional; this separates it from the traditional motivation model being quantified on a single spectrum with motivated and not motivated on opposite ends. Rather, other facets of student motivation need to be considered, such as "self-efficacy, attributions, intrinsic motivation, and goals (Linnenbrink & Pintrich, 2002, p. 313)."

In self-determination theory, Deci & Ryan (1985) noted that the most basic distinction of the types of motivation are intrinsic and extrinsic motivation (Ryan & Deci, 2000). Intrinsic motivation refers to "doing something because it is inherently interesting or enjoyable" with curiosity and personal satisfaction without receiving external tangible materials; whereas extrinsic motivation involves being motivated by an external factor such as rewards and punishments (Linnenbrink & Pintrich, 2002). The self-determination theory portrayed extrinsic motivation as varying in different degrees of autonomy. Some school assignments may not be interesting for students but are essential for building the foundation of knowledge, it is therefore important for educators to increase extrinsic motivation that allow students to value and self-regulate their own learning, while minimizing the need to use external pressure to make them comply (Ryan & Deci, 2000).

Self-Regulated Learning (SRL) is referred to as self-control in the context of learning. The two important factors in self-regulation are choice and control. Thus, self-regulation research encourages students to take responsibility, be active participants of their learning, and interact with the material that they are absorbing through their actions (Schunk and Ertmer, 2000). Zimmerman (2000, p. 14) defines self-regulation as the "self-generated thoughts, feelings and actions that are planned and cyclically adapted to the attainment of personal goals." SRL is described as the degree in which individuals think strategically before, during and after learning a task. This is a continuous processes involving three phases: forethought, performance and self-reflection (Cleary & Zimmerman, 2013). Research findings have supported that SRL has positive correlations with academic success, especially in higher education where learning takes place in unstructured environments (Zimmerman & Martinez-Pons, 1986). Zimmerman and Martinez-Pons (1986, p. 618) compiled research regarding SRL and constructed 14 categories of SRL strategies, and illustrated this process in Zimmerman's cyclical feedback loop model of self-regulation (Zimmerman & Cleary, 2009). According to Zimmerman's (2000) cyclical feedback loop model, self-regulation is composed of three phases: 1) forethought phase, 2) performance control phase and 3) the self-reflection phase; these three phases interactively influence and explain the process of self-regulation. In order to sustain a high level of SRL engagement, motivational factors also need to be present, such as self-efficacy, intrinsic motivation and mastery motivation (Cleary & Zimmerman, 2013).

Self-efficacy is one of the key factors in SRL and also plays an important role in academic motivation. According to Bandura's (1977b, 1986, 1997, 2001 as cited in Schunk & Mullen, 2013) social cognitive theory, human behavior is formed from a reciprocal interaction between the three factors: personal (e.g. cognition, emotions, beliefs, and skills), behavioral and social and environmental factors. Self-efficacy is defined as the "perceived capabilities for learning or performing actions at designated levels (Bandura, 1997)" and is a key personal factor in the social cognitive theory that influences motivation and engagement (Schunk & Mullen, 2013). Self-efficacy influences achievement behaviors, such as task choice, effort, persistence, and use of effective learning strategies (Schunk & Pajares, 2009 as cited in Schunk & Mullen, 2013). The development of self-efficacy is built on the following four sources: (a) mastery experiences, (b) vicarious experiences, (c) forms of social persuasion, and (d) physiological indexes (Bandura, 1977). Self-efficacy fits under the self-motivation beliefs in the forethought phase of the SRL model. The effects of self-efficacy beliefs involve motivation (task choice, effort, and persistence), learning, self-regulation, achievement and "emotional reaction" (Zimmerman, 2000, p. 86). Perceived self-efficacy is one type of motivational process; a higher sense of self-efficacy can positively affect learning, achievement, self-regulation and motivation (Usher & Pajares, 2007). In a meta-analytic study conducted by Multon, Brown, and Lent (1991) investigated the relationship of self-efficacy beliefs to academic outcomes and persistence showed that among a wide range of participants and experimental methods and designs, there was a significant correlation between self-efficacy beliefs and academic achievement.

Motivational Interviewing (MI) is described as a person-centered and a directive counseling technique where the therapist engages in a discussion with the client to explore and resolve ambivalence, thereby enhancing the individual's intrinsic motivation to change. Miller and Rollnick (2002) described the spirit of MI as being collaborative, evocative, and respectful of the client's autonomy; they believed that a person who is highly motivated to change would hold the three components of being willing to change, have the ability or knowledge to change, and feels ready to change. A counselor who uses the MI counseling technique will keep its four principles in mind: 1) expressing empathy, 2) developing discrepancy, 3) rolling with resistance, and 4) supporting self-efficacy (Enea & Dafinoiu, 2009; Miller & Rollnick, 2002).

The MI theory takes into account Prochaska and DiClemente's (1982) transtheoretical model of change, and tries to help the client to prepare for change during the sessions. The model of change describes change as a process that evolves through several stages. Prochaska and DiClemente (1982) identified five central processes of change, which MI bases itself on; this includes two phases. Phase 1, the pre-commitment phase, include (a) the pre-contemplation stage, (b) the contemplation stage, and (c) the preparation stage. Behavioral change starts in Phase 2, the post-commitment phase, with (d) the action stage and behavior is sustained at (e) the maintenance stage.

MI has been used in the academic setting, for example, Strait et al., (2012) used MI as a counseling technique in a randomized experiment with the aim of improving academic achievement of middle school students (sixth to eighth graders). A total of 103 students were either assigned to the MI counseling group *(n=* 50) or a waitlist group (*n=* 53). Every student in the MI counseling group participated in one MI session equivalent to the duration of one middle school period, which was 45 minutes. A standardized protocol was provided for the trained MI interviewers. The results showed that in comparison with the treatment and control group, the treatment group showed a significant improvement in class participation, but no significant differences in homework completion and academic self-efficacy were observed. Regarding academic performance, a significant effect in the treatment group was only found in Math while the subjects, Language Arts and Reading, did not show a significant improvement but they showed an increasing trend in improving. The study reflects the benefits of one session of MI as a brief intervention. However, the mixed results should be interpreted with caution.

In a dissertation by Daugherty (2008), the efficacy of a Motivational Enhancement Therapy (MET) intervention was investigated with 110 college students who had difficulties in the Introductory Psychology class. These students were randomly assigned to attend three sessions of the MET intervention or the Treatment as Usual (TAU) advice sessions from peer coaches over the duration of the semester. The MET sessions were aimed at increasing academic performance through improving self-regulated learning involved in academic motivation. The results suggested that the MET intervention was able to help failing students perform better in their class; students assigned to the MET experimental group showed significant improved performance on their total course work, exam, and quiz scores. By the end of the semester, the MET group had more students who

obtained passing grades (grade C or better) than the TAU group students, 51% to 35% respectively. The results of this study showed that the MET intervention can help students achieve their academic goals and enhance their academic performance. The investigator mentioned that the positive results from this randomized experiment suggest that once students are able to resolve their ambivalence towards studying and decide their desirable goal outcome, they are more prone to commit to behavior change by regulating their effort and self-regulation needed to work towards their academic goals.

The Self-Administrated Motivation Instrument
The *Self-Administrated Motivation Instrument (SAMI)* was developed by Duffy and his associates (Duffy, Houston, & Rimmer, 2012; Duffy, McCaig, McGrandles, Rimmer, & Martin, 2013; Duffy & Rimmer, 2008, 2009) as a low-cost intervention based on MI, which can be completed within 30 minutes. The SAMI was developed to improve students' motivation towards learning by improving their approaches to study in colleges and universities (Duffy & Rimmer, 2008). It captures the principles of MI, and invites students to evaluate their learning styles and decision-making, by engaging them to reflect and generate their own argument or reasons to improve their study approaches. Duffy and Rimmer (2009) distributed the SAMI to 329 nursing students at a Scottish university. The age range of the participants was between 18 and 50, with the largest group being 31 to 40 of years (approximately 37 percent). The results showed that the students who completed the SAMI increased their strategic approaches to study and had a higher chance of obtaining higher grades compared to those who did not. An effect size of 0.32 was found for strategic scores suggesting quantitatively significant effects on academic achievement and an increase in the strategic approach to learning (Duffy & Rimmer, 2008). The SAMI has been used and found to have positive impacts on deep and strategic approaches to study (Duffy & Rimmer, 2009).

In helping school counselors to promote academic importance, the SAMI, which bases itself on MI could be useful as a low cost brief intervention to address students' study habits. The empirical data supporting MI in academic motivation and performance enhancement provided can serve as a brief intervention option for school counselors addressing students' academic motivation toward studying.

Conceptual Framework
The conceptual framework of this present investigation is the Brief Academic Motivational Instrument (BAMI) and this should have an impact on academic self-efficacy and academic motivation among Assumption University students. (See *Figure 1*).
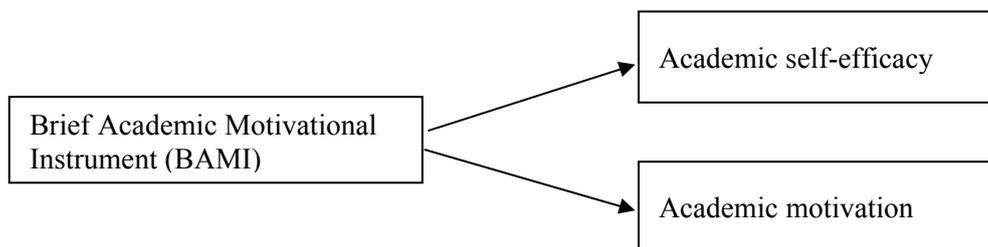
Figure 1: Conceptual Framework of The Present Investigation

Method

As the conceptual model explains, the current investigation employed a mixed 2 (BAMI/control) x 2 (within-subjects: pretest and posttest) repeated measures design to investigate the effectiveness of the BAMI in increasing academic self-efficacy and academic motivation. The experimental group participants are given the intervention, the BAMI; while the control group participants received no intervention. The dependent measures administered at pretest and posttest in this experiment are: (1) Self-efficacy for learning & performance subscale from the Motivated Strategies for Learning Questionnaire (MSLQ) and the (2) academic motivation scale-revised.

Participants

The sample consisted of 40 participants of whom 20 (50%) were randomly assigned to the BAMI experimental group, and 20 (50%) were randomly assigned to the non-intervention control group. The participants' ages ranged between 18 to 32 years (mean age 21.23), 12 males (30%) and 28 females (70%). In terms of their level of education, 13 (32.5%) of the participants were classified as 'sophomore,' 17 (42%) were classified as 'Junior,' 9 (22.5%) were classified as 'Senior,' and 1 (2.5%) did not state his or her level of education.

Measures

Academic self-efficacy scale

Academic self-efficacy was measured by the self-efficacy for learning & performance subscale of the Motivation Strategies for Learning Questionnaire (MSLQ). The MSLQ is a self-report scale developed by Pintrich et al. (1991), and was developed from a social-cognitive theoretical perspective, which consisted of two primary categorized scales: the motivation scale and learning strategies scale. The self-efficacy for learning & performance from the motivational subscales has eight items ($r = .41$; $\alpha = .93$) and is measured with a 7-point Likert scale of 1 (*not at all true of me*) to 7 (*very true of me*). The greater the accumulated score, the higher the academic self-efficacy the participant demonstrates.

Academic Motivation Scale-Revised

The *Academic Motivation Scale-Revised* was modified from the Academic Motivation Scale (AMS) developed by the researchers Lockwood, Jordan, and Kunda (2002), for the application of this investigation. The original focused on future planned behavior, while in this investigation the AMS-Revised has modified each question from the AMS into two questions, one focusing on how the participant has studied since the beginning of the semester, and the other focusing on how the participants plans to study for the rest of the semester. For example the original item, "I plan to put more time into my schoolwork," was modified to "rate how much time you have put in your school work so far this semester" and "now rate how much time you plan to put in your school work for the rest of the semester." Negatively-worded items are reverse-scored (items 12, 18 and 22) There

are a total of 32 items in the AMS. This measurement used an 11-point Likert scale of 1 (*not at all true of me*) to 11 (*very true of me*).

Brief Academic Motivational Instrument (BAMI)
The *Brief Academic Motivational Instrument* (BAMI) was adapted by the investigator of this study from the *Self-Administrated Motivational Instrument* (SAMI) (Duffy & Rimmer, 2008) because of several reasons. First, the pretest of this study included five participants and the investigator found that there were questions and phrases from the SAMI that the participants did not understand. In addition, the SAMI questionnaire was quite lengthy, so the participants seemed to have lost interest during answering the SAMI. In addition, the SAMI did not increase as much reflection as anticipated, judging by the fact that the written responses from the participants on the questionnaire was brief. Therefore, the investigator decided to omit seemingly repetitive questions that increased reflection in the SAMI to make the BAMI shorter.

The Brief Academic Motivational Instrument (BAMI) was adapted by the investigator of this study from the Self-Administrated Motivational Instrument (SAMI) (Duffy & Rimmer, 2008). It allowed students to evaluate their current investigation habits and elaborate on the advantages and disadvantages of remaining their current status quo and improving it. The instrument comprised of four sections, which included: (1) Rating of the students' perceived current and potential academic performance on a Likert scale of 0 (*not very well*) to 9 (*very well*) and reflection of the difference between the ratings of the two scores. (2) Identifying their problems with studying, evaluating the advantages and disadvantages of maintaining the status quo, and of changing their study approach, (3) Evaluating obstacle(s) in making changes, generating possible solution(s), and (4) Elaborate what they would anticipant as their accomplishment or reward, if they succeed in the plan.

This instrument is a brief intervention to improve students' motivation to study. This instrument was administered to the experimental group as a semi-structured interview to the participants and was completed within 20-30 minutes depending on the participant.

Procedure
Data collection was conducted using convenience sampling at the Bang Na Campus of Assumption University, participants were university students. Prescreening questions included (1) if the participant had a GPA of lower than 3.0 and (2) if he or she wanted to improve their grades. If the participant answered 'yes' to both questions, the investigator would then ask if he or she was interested in joining the investigation. The participants were assigned to either the control or experimental group by alternative order. All students completed the *Self-Efficacy and Academic Motivation-Revised* scales. A free gel pen was given as an incentive to join. Five days after the intervention was administered with the experimental group participants, a summary was sent to them via email so the participants could refer back to the interview content. Ten days after the pretest was administered, a follow

up email for the posttest was sent to the students, and the students completed the posttest online through Google form survey.

Results

Reliability Analysis of Scales Employed
Reliability analysis was conducted on the two scales of academic self-efficacy and academic motivation. The factor of academic self-efficacy is represented by 8 items pre-intervention and 8 items post-intervention, and the factor of academic motivation is represented by 26 items pre-intervention and 30 items post-intervention. The computed Cronbach's alpha coefficients for all two pre- and post-scales were high and ranged from .90 to .95. After discarding items identified as 'unreliable' (i.e., those with corrected item-total correlation <.33 and whose deletion would increase the scale's overall Cronbach's alpha), each of the two factors of academic self-efficacy and academic motivation (pre- and post-) was then computed by summing across the (internally consistent) items that make up that factor and their means calculated.

MANOVA for repeated measures (pre- versus post-intervention) for the variables
In order to investigate whether the changes in the dependent (within-subjects) variables of academic self-efficacy, and academic motivation from pre- to post-intervention are similar or significantly different for the experimental and control groups, a series of 2 (experimental, control) x 2 (pre- versus post-intervention) MANOVA for repeated measures were conducted. (See Appendix M).

Academic self-efficacy
Results from the multivariate tests of significance indicated that the main effect for the within-subjects variable of *academic self-efficacy* is not significant (p>.05), based on all four multivariate tests of significance (Pillai's, Wilks', Hotelling's, Roy's). From the cell means, the results indicated that the participants scored lower on this variable in the post-intervention condition (M=4.66) than in the pre-intervention condition (M=4.85), averaged across the two groups (experimental, control). However, this difference is not statistically significant, which is confirmed by the tests of within-subjects contrasts which contrasted the *academic self-efficacy* scores obtained across the pre- and post-intervention conditions. The contrast compares the *academic self-efficacy* scores made in the pre-intervention condition (M=4.85) with those made in the post-intervention condition (M=4.66), and is not statistically significant, F (1, 38) =1.037, p>.05.

For the *academic self-efficacy*group* interaction, all four multivariate tests (Pillai's, Hotelling's, Wilks', Roy's) indicate that this interaction is not statistically significant (p>.05), suggesting that the *academic self-efficacy* scores made across the pre- and post-intervention are similar for the experimental and control groups. The contrast is not significant, F(1.38)=.029, p>.05, which indicates that the mean difference in the *academic self-efficacy* scores made between the pre- and post-intervention conditions is similar for the experimental and control groups.

Academic motivation

Results from the multivariate tests of significance indicated that the main effect for the within-subjects variable of *academic motivation* is not significant ($p>.05$), based on all four multivariate tests of significance (Pillai's, Wilks', Hotelling's, Roy's). From the cell means, the results indicated that the participants scored higher on this variable in the post-intervention condition ($M=.27$) than in the pre-intervention condition ($M=.22$), averaged across the two experimental and control groups. However, this difference is not statistically significant. This is confirmed by the tests of within-subjects contrasts, which contrasted the *academic motivation* scores obtained across the pre- and post-intervention conditions. The contrast compares the *academic motivation* scores made in the pre-intervention condition ($M=.22$) with those made in the post-intervention condition ($M=.27$), and is not statistically significant, $F(1, 38) =.341, p>.05$.

For the *academic motivation*group* interaction, all four multivariate tests (Pillai's, Hotelling's, Wilks', Roy's) indicate that this interaction is not statistically significant ($p>.05$), suggesting that the *academic motivation* scores made across the pre- and post-intervention are not dependent on the type of treatment groups (i.e., experimental versus control). The contrast is not significant, $F(1, 38) =.113, p>.05$, which indicates that the mean difference in the *academic motivation* scores made between the pre- and post-intervention conditions is similar for the experimental and control groups.

Discussion

The BAMI was modified from the Self-Administrated Motivational Instrument (SAMI), which has shown significant results in changing the deep and strategic learning approaches in Duffy & Rimmer's (2008) study. This could suggest that the BAMI was not an effective modification of the SAMI, or the possibility of Type II errors that may have led to false insignificant results. First, the cultural differences with the SAMI adaptation made in the BAMI may have contributed to its ineffectiveness; the SAMI was administered to mostly nursing students ($N=325$; age ranged between 18 and 50) compared to the present investigation ($N=40$; age ranged between 18 and 32). The age difference may suggest a difference in maturity and motivation among the samples.

Second, cultural difference in seeking social support suggested by Kim, Sherman, & Taylor's (2008) study found that Asian and Asian Americans were more reluctant to ask explicitly for help from people who they are close to in comparison to European Americans. Another study found that Asians and Asian Americans were more likely to view disclosure as an additional source of stress when they are asked to engage in it (Taylor et al., 2007 as cited in Kim, Sherman, & Taylor, 2008). This may suggest a difference in social support seeking habits in the Asian culture, and that revealing about their distress, for example, perhaps revealing about what they felt about the score discrepancy between their perceived current and potential academic performance may have been uncomfortable and stressful for the participants.

Third, additional screening may be needed for selecting participants, because the theory behind MI is that people are ambivalent about their behavior. However,

in the present investigation, 60% of the participants (12 participants) in the BAMI experimental group mentioned that they were not bothered by the score discrepancies between their perceived current and potential academic performance which may suggest an absence of ambivalence to do better academically; these participants may be those who are in the pre-contemplation stage of the change process. This further suggests the participants do not view having a GPA of below 3.0 as being severe, for example, one student mentioned during the interview that his or her goal was to remain in the GPA range of 2.4 to 2.5.

Fourth, some problems that were mentioned by participants regarding their studying approaches frequently narrowed down to procrastination, amotivation, and being preoccupied with friends or social media. Some solutions they generated fitted into the 14 categories of SRL strategies Zimmerman & Martinez-Pons proposed (1986), such as time management, rehearsal and goal setting. This present investigation gives a brief idea of what kinds of SRL strategies the participants came up with by themselves as solutions to improve their studying approaches.

Fifth, in Duffy & Rimmer's (2009) study, the experiment was administered in the beginning of the semester with a larger sample size (*N*=325) compared to the current investigation (*N*=40); if the present investigation was able to recruit a comparable sample size, it may have led to significant results in this study. In addition, the insignificant findings of the current investigation's intervention may have been caused by the timing of the data collection, which was conducted a week before the midterm exams. As the literature review suggested earlier, motivation is subject to context and situation, which varies between domains (Linnenbrink & Pintrich, 2002). The midterm exams may have acted as a contextual event for self-evaluation and reflection for both the experimental and control group participants, and would then effect the way they plan to study for the rest of the semester.

Sixth, English is the medium of instruction at Assumption University, and a pretest using five students was conducted prior to the data collection to test English comprehension of the study's future participants and to adjust the phrasing in the semi-structured interview. However, in this current investigation, the investigator was able to offer language assistance in English, Mandarin and Thai, by explaining the meaning of the question in the language the student was most comfortable in, however the Thai proficiency of the investigator is not as proficient as her English and Mandarin, so the conversation may have been limited with Thai speaking students.

Lastly, a major part of MI is to reflect or paraphrase the participant's comments as a means to encourage participants to elaborate what they are saying in order to clarify ambivalence and strengthen change talk. One major alteration of the Brief Academic Motivational Tool (BAMI) from the Self-Administered Motivational Tool (SAMI) (Duffy & Rimmer, 2008) was to include the investigator in interviewing the participants instead of distributing the interview as a self-administered tool. With face-to-face interviews, it also enables the investigator to learn more about the underlying feelings and thoughts participants may have in hopes of increasing change talk to amplify their motivation to change. The construction of a positive therapeutic relationship is a major factor in treatment success (Miller & Rollnick, 2002, p. 311). In order for the participants to benefit

from the intervention, an environment where the participants feel they are engaging positively with the counselor is essential. There is a possibility that the investigator was unable to build a therapeutic relationship that provided empathy that facilitated self-efficacy in such a short time during the brief intervention.

This study was an attempt to investigate enhancing academic self-efficacy and academic motivation among low performing students using motivational interviewing. However, it is important to note that replication of this study with a larger sample size, better pre-screening of participants, and timing of the study to avoid possible confounds noted above would be necessary to draw more definitive conclusions about the effectiveness of a paper based motivational interviewing tool.

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A STUDY OF THE RELATIONSHIP BETWEEN USE OF BILINGUAL STRATEGIES AND ACADEMIC PERFORMANCE OF ASSUMPTION UNIVERSITY'S LEARNERS OF FRENCH

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Abstract: This study examines the relationship between students' use of bilingual strategies and their academic performance in the Department of Business French of Assumption University (AU). A quantitative approach was adopted. The study includes a sample of 63 students learning French in AU. A questionnaire was elaborated to collect data about the frequency of use of bilingual strategies and the academic performance of students. Descriptive and correlational statistics, including a Pearson Product Moment computation of correlation, were used to interpret the data and measure the significance of the correlation between the two sets of variables. The results indicated that a high frequency of use of bilingual strategies is correlated with high academic performances. Some recommendations grounded in the results are proposed in conclusion.

Introduction

Various researches have been conducted on how bi/plurilingualism affects the learning process and how it can favor the development of effective learning language strategies. The European Framework of References for languages (Council of Europe [COE], 2001) suggested that plurilingualism, defined as "a communicative competence to which all knowledge and experience of language contributes and in which languages interrelate and interact" (p.4) is a cognitive and metacognitive advantage for language learners.

Bilingualism, which is the most common case of plurilingualism, is an ability to mobilize knowledge previously acquired in a L1 for learning and using a L2 (Moore, 2006). This competence is observable through the use of specific learning language strategies relying on previously acquired knowledge (Castellotti & Moore, 2002), and is particularly effective in improving learning when the target language is close to the previously acquired language, as it is the case for French and English.

This research took place in the Department of Business French of Assumption University, which is a bilingual learning environment. The students in this program need to be proficient in English, which is the main teaching language of the university, as well as in French. They are generally more proficient in English than in French. Our hypothesis is that, unlike learners of Chinese or Japanese, AU's learners of French possess an advantage for learning due to the linguistic proximity of French and English. This proximity can facilitate the learning of French and arouse the use of specific strategies, relying on English. Therefore, a frequent use of bilingual strategies by learners should results in higher academic performances.

The following questions were addressed: what bilingual strategies are used by the French learners of AU, and with what degree of frequency? Is the degree of frequency of use of bilingual strategies significantly correlated with high academic performance?

Research objectives

The objectives of the study were:

1. To measure the frequency of use of bilingual strategies by AU's learners of French.
2. To examine the relationship between learners of French's use of bilingual strategies and their academic performance.

Some recommendations for a didactic optimization of the proximity between French and English are provided in conclusion.

Literature review

The notion of bi/plurilingualism

The Common European Framework of References for languages (COE, 2001) defined the bi/plurilingual competence as an ability to communicate in more than one language according to the communication situation. A plurilingual speaker "can call flexibly upon different parts of this competence to achieve effective communication with a particular interlocutor" (p.4). This competence supposes knowledge and therefore learning of several languages at different levels. It is defined by Coste, Moore and Zarate (2009) as "the ability to use languages for the purpose of communication (…), where a person, viewed as a social actor has proficiency, of varying degrees, in several languages (…)" (p.11).

Bilingualism is the most frequent case of plurilingualism. It is not seen as a balanced set of advanced skills in two different languages, but rather as an ability to use two languages, with varying degrees of proficiency. It is "not seen as the superposition or juxtaposition of distinct competences, but rather as the existence of a complex or even composite competence on which the user may draw" (COE, 2001, p.168). Bilingualism supposes the availability of linguistic knowledge that can be used in communication situations and for facilitating the learning of new languages. It supposes the transfer of skills and knowledge acquired in one language to another language being learned.

According to Laurent Gajo (2001), bilingualism is a potential asset for learners, which allows them to compensate the lacks in the competences that are necessary for communication (linguistic, sociolinguistic, *etc.*), by mobilizing knowledge and skills acquired in another language. It is a capacity to rely on preexisting linguistic knowledge to ensure communication in a foreign language.

Daniele Moore (2006) associates bilingualism with a metalinguistic knowledge fostering the development of transversal skills, reusable in different languages, and resulting in a better ability to apprehend a language, and to construct new knowledge.

A bilingual is therefore seen as a language user and learner having a cognitive and metacognitive advantage for language learning and communication. This advantage will be mostly effective in the case where the two languages are close. As pointed by Ringbom and Jarvis (2007), the proximity between L1 and L2 can be conceived as an entrance in L2 for learners proficient in L1. "Perceiving and making use of cross-linguistic similarities to prior knowledge is important in the learner's striving to facilitate the learning task." (p.106).

Proximity between languages

If the proximity between languages can facilitate the learning of one of these language, it is important to examine the extent to which English can be considered linguistically close to French.

According to the research project Ethnologue (Paul, Simons, Fennig, 2016), French and English belong to the Indo-European languages family, but French belongs to the Romance languages sub-family, while English is a Germanic language. Despite some differences, especially in terms of pronunciation, they possess a large number of similarities. Most of these similarities can be identified by English users learning French, and used to facilitate their learning, through the use of specific strategies. A non-exhaustive list of exploitable similarities is proposed below.

Lexical similarities

Based on estimations (Paul et al., 2016), English has a lexical similarity of 27 percent with French. Both languages have the same Greek and Latin roots. This is particularly evident for academic and scientific words that are mutually comprehensible. Here are a few examples (*French*/English): *philosophie*/philosophy, *théâtre*/theatre, *université*/university, *biologie*/biology, *etc*. As illustrated in Table 1, prefixes and suffixes, inherited from Greek and Latin, provide regularities between the two languages and can facilitate comprehension and inferences on the form of new words.

Table 1: Prefixes and Suffixes for French and English

Prefix	English	French
Anti-	Antipathy	*Antipathie*
Bi-	Bilingual	*Bilingue*
Inter-	International	*International*
Peri-	Periodic	*Périodique*
Suffix (latin)	English	French
-arius	Military	*Militaire*
-ismus	Idealism	*Idéalisme*
-tio	Nation	*Nation*
-osus	Nervous	*Nerveux*

Baugh and Cable (2002) showed that English lexic and grammar were influenced by French, which was the language of the royal court in England from the XIIth to the XVth century. During this period, English borrowed massively to French vocabulary. (*forêt*/forest, *loisirs*/leisure, most of the words ending with –ous, ty, tion, ture, ent). Due to the proximity of France and England, and to the role of English as an international language, French has equally borrowed a significant number of words to English.

Grammatical similarities

French and English possess similar syntax and grammar verb, which reduce the

opacity between them. Both languages have auxiliaries, participles, active/passive voice, past/present/future tenses. As a result, even without any knowledge of French, an English user will be able to guess the function of the words, and eventually their meaning, in a French sentence. This is particularly clear in the following example, reported by Escudé and Janin (2010) to evaluate the mutual intelligibly of French with various other languages:

Le petit prince (French)
The little prince (English); *Chú bé hoàng tử'* (Vietnamese) The French and English sentences are mutually comprehensible and show that for an English user, French has some degree of transparency, whereas, Vietnamese has not. As pointed by Odlin (2003) cross-linguistic similarities results in a multiplicity of contact points between languages. Similarities between French and English constitute entrances in the French language for learners/users of English, and can facilitate and accelerate their learning process.

Bilingual learning strategies
The cross-linguistic similarities between English and French permit the use of specific learning strategies relying on previously acquired knowledge in English, when learning French. This type of strategies, involving skills in another language, will be referred to as bilingual learning strategies.

According to Oxford, (1990, p8), learning language strategies (LLS) are "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situation." Bilingual learning strategies, therefore, are actions facilitating and improving language learning, and involving reliance on previously acquired knowledge and transfer of skills in different languages.

Based on Oxford (1990) initial classification, four types of bilingual learning strategies have been identified:

1. The cognitive and memorization strategies, which concern the handling, usage and memorization of the target language. These include all behaviors consisting in identifying the similarities behind the differences and specificities of languages, in a systematic way, for example, the identification of graphic and phonic regularities from English to French, or the use of inferences, based on knowledge in English. As an example, Escudé, Janin, (2010), showed that the learners can note that the words ending with *–té* in French, often ends with *–ty* in English (as an example: university/*université*), and reuse this knowledge for inferring the form of new knowledge in French.
2. The transfer strategies, which consist in transferring knowledge acquired in one language to another language being learned. It refers for example to the imitation of English patterns in the production of French text. These strategies result in interlingual performances in French, in which the reliance on English is perceptible. Interlingual performances are a step in the acquisition of a target language.
3. The compensatory strategies, which are used to overcome a lack of

knowledge. These include for example code-switching techniques, with the aim to maintain communication during a conversation. Code switching, like the transfer strategies, must be considered as a step in language acquisition.

4. The metacognitive strategies, which concern the regulation and organization of learning. These include, for example, the ability to identify what techniques or what behaviors make language learning effective, and apply them to the learning of another language.

Conceptual framework

This study aimed to examine the bilingual strategies used by Assumption University's learners of French and the relationship between their academic performances, measured through their GPA, and their frequency of use of ten bilingual learning strategies.

Figure 1 shows the conceptual framework of this study. The independent variables are the use of bilingual strategies by learners. The strategies are divided in 4 classes, 1/ cognitive and memorization, 2/ transfer, 3/ compensatory and 4/ metacognitive. The dependent variables are the academic performances of the students, which are measured through their GPA.

Department of Business French of Assumption University of Thailand, a bilingual learning environment	Use of bilingual learning strategies 1. Cognitive and memorization strategies 2. Transfer strategies 3. Compensatory strategies 4. Metacognitive strategies	Learners' academic performance, measured through their GPA
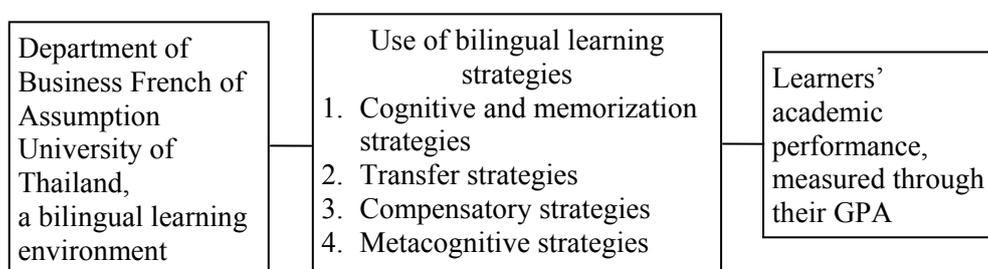
Figure 1: Conceptual Framework of The Study

Method/Procedure

Sample strategy

63 students enrolled in the Department of Business of Assumption University participated in the research. They completed the questionnaire the second week of the academic semester 1/2015. A convenience sampling method was adopted.

All the respondents were enrolled in the university for at least three semesters (see Table 2). All of them possess skills of varying degrees in French and English and can be, according to the definition given in the section 1, considered as bilingual learners. The sampling strategy aimed to obtain a homogeneous sample of students in terms of academic background and languages proficiency.

Table 2: Profile of The Respondents (N = 63)

	Number	Percentage

Age	19	16	25.4
	20	25	39.7
	21	11	17.5
	22	6	9.5
	23	5	7.9
	Total	*63*	*100.0*
Gender	Women	57	90.5
	Men	6	9.5
	Total	*63*	*100.0*
Nationality	Thai	59	93.7
	Chinese	3	4.7
	Laotian	1	1.6
	Total	*63*	*100.0*
Number of semesters (mean = 4.2)	3	25	39.7
	4	16	25.4
	5	15	23.8
	6	7	11.1
	Total	*63*	*100.0*
Self-assessed level in English	Elementary	4	6.3
	Intermediary	32	50.8
	Advanced	27	42.9
Self-assessed level in French	*Total*	*63*	*100.0*
	Elementary	34	54.0
	Intermediary	25	39.7
	Advanced	4	6.3
	Total	*63*	*100.0*

Questionnaire

In order to collect data on students' profile, on their academic performances and on their frequency of use of learning strategies, an anonymous questionnaire was designed. Various questionnaires to measure the frequency of use of learning languages strategies have been elaborated by researchers. The questionnaire used in this research is based on a review of the Strategies Inventory for Language Learning (SILL) (Oxford, 1990), Cohen's (1990) questionnaire, and a review of researches on bilingualism, especially (Moore, 2006). Ten bilingual learning strategies have been identified and listed in the questionnaire (see Table 4 for the list of strategies).

The questionnaire is divided into two sections:

1. A first section focusing on the students' general profile. In this first section, the respondents were instructed to precise their Grade Point Average (GPA) in order to provide information on their academic performance.
2. A second section designed to collect information on the student's frequency of use of bilingual learning strategies, in which previously learnt languages may play a role. This section focuses on the frequency of use of the cognitive, memorization, transfer, compensatory and metacognitive bilingual learning strategies. This part of the questionnaire is subdivided into nine items, each referring to a specific type of strategies. For each type

of strategy, the respondents were asked to rate their frequency of use on a 5 points scale (1 = Never or almost never used; 5 = Always or almost always used).

In order to interpret the results, the following key was used.

4.5 – 5	Systematic use of strategies
3.5 – 4.49	Frequent use of strategies
2.5 – 3.49	Occasional use of strategies
1.5 – 2.49	Low use of strategies
1 – 1.49	Very low use of strategies

Procedure and data analysis

The questionnaire has been distributed to students in class or through a form to complete online. 70 students were solicited, 63 answered.

In order to analyze the data, descriptive and correlational statistics, including a Pearson coefficient of correlation computation, were used.

Findings/Results

Profile

As reported in Table 2, the results of descriptive statistics showed that the totality of respondents were in the age between 19 and 23, with 17.4 percent aged 22 or more. With regards to gender, the large majority of the respondents were female students (n=57, 90.5%). Regarding the nationality, the large majority of the respondents were Thai (n=59, 93.7%). All the respondents were enrolled in the university for at least 2 semesters, and at most 6 semesters.

The results also indicate that the respondents self-assessed their level in English as more advanced than their level in French. A majority of them reported an intermediate level in English (n=32, 50.8%), and 42.8 percent of them (n=27) reported an advanced level. Only 6.3 percent (n=4) of them reported an elementary level. Concerning their level of French, their estimations are significantly lower. A majority of them reported an elementary level in French (n=34, 54%), and 39.7 percent of them (n=25) reported an intermediate level. Only 6.3 percent (n=4) of them reported an advanced level. The Table 2 presents these data.

The average GPA for the respondents is 2.9. As shown in Table 3. The lowest GPA is 1.85 and the highest is 3.94. 27 percent (n=17) of the respondents reported a GPA superior to 3.2, 44.4 percent (n=28) reported a GPA comprised between 2.5 and 3.19, 28.6 percent (n=18) reported a GPA inferior to 2.49.

Table 3: GPA of The Respondents (N = 63)

		Number	Percentage
GPA	High (3.2 – 3.94)	17	27.0
	Average (2.5 – 3.19)	28	44.4
	Low (1.85 – 2.49)	18	28.6
	Total	*63*	*100.0*

Frequency

The results showed that the respondents have an occasional/frequent use of bilingual strategies. The average strategy use ranged from 1.4 to 4.6. The overall mean for the sample is 3.48.

As shown in Table 4, the most frequently used strategy is item 2 ("When learning French, I look for words in English that are similar to new words in French"), with a mean of 3.87 (frequent use). The least used is item8 ("During conversation or monologue in French, if I do not know the right word, I use words from English, but I add vowels or consonants so that they seem like words in French."), with a mean of 2.98 (occasional use).

Regarding the class of strategies, we observe that the cognitive and memorization strategies (items 1, 2, 3, 4) are the most used, with a mean of 3.65, which related to a frequent use. These are followed by the metacognitive strategies (item 10), with a mean of 3.48 (occasional use), the transfer strategies (items 5, 6, 7) with a mean of 3.27 (occasional use) and the compensatory strategies (items 8, 9), with a mean of 3.09 (occasional use).

Table 4: Frequency of Use of Bilingual Strategies (N = 63)

	Strategies	Mean	S.D.	Interpretation
1.	When learning French, I use my knowledge of English.	3.62	0.83	Frequent
2.	When learning French, I look for words in English that are similar to new words in French.	3.84	0.9	Frequent
3.	When reading in French, I make guess based on the resemblance of French words with English words.	3.73	0.83	Frequent
4.	I list words that are similar in French and English, so I can memorize them more easily.	3.42	0.99	Occasional
5.	I try to identify similarities between French and English grammar.	3.30	0.91	Occasional
6.	I try to find similar patterns between French and English sentence structures.	3.21	0.84	Occasional
7.	When writing in French, I imitate English patterns and text organization.	3.31	0.93	Occasional
8.	During conversation or monologue (a presentation for example) in French, if I do not know the right word, I use words from English, but I add vowels or consonants so that they seem like words in French.	2.97	0.99	Occasional
9.	When speaking in French, I am likely to switch to English momentarily if I do not know a word.	3.21	0.88	Occasional
10.	When learning English, I try to identify practices that help me to learn effectively, and I reuse them when learning French.	3.48	0.76	Occasional
		3.49	0.89	Occasional
	Total			

Correlation

The results showed a positive but weak correlation between respondent's academic performance, measured through their GPA, and their use of bilingual learning strategies. According to the findings reported in Table 5, the correlation between the two variables is .398, and significant value is 0.001, which is inferior to .05 significant levels.

Table 5: Correlation between GPA and Frequency of Use of Bilingual Learning Strategies

	Learners' GPA
Frequency of use of bilingual learning strategies	.398
Pearson Correlation Sig. (2-tailed)	.001

$*p < 0.05$

Discussion

The purpose of the research was to identify the frequency of use of bilingual learning strategies of AU's learners of French, and to determine the relationship between their use of bilingual learning strategies and their academic performance. The results showed that AU's learners of French have an occasional/frequent use of bilingual learning strategies, and that there is a significant relationship between the two set of variables.

The results indicated that bilingual strategies users are more successful learner. Cross-linguistic similarities being an asset for language learning, it appears that raising learner's awareness of the proximity between languages, and making the most of this proximity for teaching purposes (Castellotti, Moore, 2002) could be a way to facilitate the learning of French for AU's students.

As an example of optimization of the proximity between languages, the dispositive Eurom-4 (Blanche-Benveniste, 1997) can be mentioned. This dispositive has been experimented in Europe in 1997, and allows learners to develop reading skills in four Romance languages (French, Italian, Spanish and Portuguese) taught simultaneously. It is meant to help learners to build transversal skills in several languages, and help them to consolidate their plurilingual skills. A similar dispositive could be implemented in Assumption University with the creation of modules aiming to develop students reading skills in French and English taught simultaneously.

In addition to this setting, the creation of bilingual learning strategies training module, designed to encourage the students to rely on bilingual learning strategies, could improve their language learning skills. This type of setting should help learners to make the most of their bilingual ability and improve simultaneously their skills in English and French. As pointed by the Council of Europe (2007) "all language teaching should include the development of learning strategies and not be seen as an end in itself" (p.69), which supposes that the language class should not be only the place where a language is taught, but a dispositive designed to develop the learning ability of students.

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SCHOOL MANAGEMENT STRATEGIES TO ENHANCE THE ACCOUTABILITY*

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Abstract: The objectives of this research were 1) to study the framework of management to enhance the accountability 2) to study the current and desirable states of management to enhance the accountability 3) to analyze strengths, weaknesses, opportunities and treats of management to enhance the accountability and 4) to develop school management strategies to enhance the accountability. The study applied a mixed method approach. The sample were 395 schools under the office of the Basic Education Commission. The instruments used in this study were questionnaires and the strategic evaluation form to testify feasibility and appropriateness. The data were analyzed by frequency, percentage, standard deviation, PNI $_{Modified}$ and content analysis.

The research results showed that 1) the framework of management to enhance the accountability consist of five school management: Physical and Emotional well-being of students, Students Learning outcome, Equity for Opportunity to learn of students, Improving capacity of teacher and school management and Parents and community empowerment. 2) In general, the current state of management to enhance the accountability performed at the middle level ($\overline{x}$= 3.224). While considering each aspect, physical and emotional well-being of students had the highest average ($\overline{x}$= 3.352). The desirable state of management to enhance the accountability was performed at a highest level as a whole. While considering each aspect, equity for opportunity to learn of students had the highest average ($\overline{x}$= 4.679). 3) The strengths of management to enhance the accountability were students learning outcome and physical and Emotional well-being of students, while the weakness of management to enhance the accountability were improving capacity of teacher and school management and parents and community empowerment. The opportunity for management to enhance the accountability was technology. While the threats for management to enhance the accountability were the government policy, economy and society. 4) The school management strategies to enhance the accountability were (1) Reforming school management for improving the capacity of teacher and school management to enhance the accountability. (2) Increasing the efficiency of school management focused on equity for opportunity to learn of students to enhance the accountability. (3) Developing the quality of school management for parents and community empowerment to enhance the accountability. (4) Promoting school management of students learning outcome to enhance the accountability. (5) Driving school management of physical and emotional well-being of students to enhance the accountability.

Keywords: School Accountability / Management Strategies to Enhance The Accountability.

Background and Significance of the Study

Institution of education, considered a significant source of knowledge and a human resource in a society, plays an important role to help develop people's potentials to a great extent in all aspects. Thus, educated people have been developed to be ones who are intelligent, virtuous, and happy. The development of people to crucially participate in democratic society has always mentioned as the main purpose of learning management in higher education (Harvey & Immerwahr, 1995). Likewise, Samkokes (2011) stated that a university is a place for higher education, helping develop students to become people with good characteristics of the world, good people of a country, people who care other peoples and the world, self-responsible people, as well as the world creators.

Education with the purpose to develop potential people is considered a civil society generation, which is a learning process aiming at forming human beings' behaviors in appropriate ways, and has also been a tool to maintain the political state of being in a society. Politics and government systems are based on members of civil society members who are necessarily educated in terms thoughts, and operational approaches in conjunction with such these systems. As such, meaningful education has been ascribed to education enabling people to well interconnect themselves to an environment including politics, a government, a kept changing society, and the changing world (Tantisunthorm, T., 2011).

Obviously, institute of education is a source of knowledge and a place generating a crucial human resource of a society. It has been considered the main institute helping enhance good characteristics of potential people through education management so as to generate mature civil society, plan administration strategies for higher education institutes to develop students to become potential people, and form operational systems for higher education institutes to produce students with expected characteristics to be good people of a country and the world.

The Purpose of The Study
There are four purposes for the study:
1. To study the framework of management to enhance the accountability.
2. To study the current and desirable states of management to enhance the accountability.
3. To analyze strengths, weaknesses, opportunities and treats of management to enhance the accountability.
4. To develop school management strategies to enhance the accountability.

The Conceptual Framework of The Study
According to the studies and research reviews related to**,** researchers synthesize the school management strategies to enhance the accountability, researchers synthesize the conceptual framework for research as follows: (view on Figure 1)

School Management
According to the duty of school management (Ministry of Education, 2007) comprising of:
1. Academic Affair Management
2. Budget Management
3. General Management
4. Personnel Management

Process of School Management
Synthesized the conceptual process of: Fayol (1916), Gulick & Urwick (1936), Sears (1950) and Deming (1993) comprising of:

1. Planning
2. Implementation
3. Evaluation

School Accountability
Synthesized the conceptual process of: NASDSE (2000), Jones (2004), Entwistle (2006) and Ladd (2012) comprising of:

1. Physical and Emotional well-being of students
2. Students Learning outcome
3. Equity for Opportunity to learn of students,
4. Improving capacity of teacher and school management
5. Parents and community empowerment

The Development of the School management strategies to enhance the accountability

Synthesized management strategy concept of Wheelen and Hunger (2012), strategic stipulation of Koontz and Weihrich (1990 comprising of:

1. Analyzing SWOT using $PNI_{Modified}$
2. Strategy formulation using TOWS Matrix
3. Improving school management strategies according to experts and stakeholders' suggestions

The School management strategies to enhance the accountability

Figure 1: The Conceptual Framework of The School Management Strategies to Enhance The Accountability

Review of The Related Literature
In studying The School management strategies to enhance the accountability, the researchers studied and reviewed the following relevant documents:
1. School Accountability
2. School Management
3. Development of management strategies
4. Relevant researches

Research Methodology
The overall process is focused as follows:

Results, Discussions and Suggestions

Results

The research results showed that:

    1. The framework of management to enhance the accountability consist of five school management: Physical and Emotional well-being of students, Students Learning outcome, Equity for Opportunity to learn of students, Improving capacity of teacher and school management and Parents and community empowerment.

    2. The current situation and the desirable situation for the The Higher education institution management strategies for developing citizenship of university students

    2.1 From the internal factor analysis, it is found that the current situation for the management for developing citizenship of university students was performed at the middle level. While considering each aspect, democratic knowledge had the highest average ($\bar{x}$= 3.041).

        From the external factor analysis, it is found that current situation for the The Higher education institution management strategies for developing citizenship of university students is middle level($\bar{x}$= 3.105). While considering each aspect, Technology aspect has the highest current mean ($\bar{x}$=3.333), followed by the government policy condition which has a lower current mean ($\bar{x}$=3.024), followed by social condition which has a lower current mean ($\bar{x}$=3.018), and finally, the economic condition, which has the lowest current mean ($\bar{x}$=2.992).

    2.2 From the internal factor analysis, it is found that the desirable situation in for the the higher education institution management strategies for developing citizenship of university students is considered high ($\bar{x}$= 4.445), While considering each aspect, democratic knowledge had the highest average ($\bar{x}$= 4.454).

From the external factor analysis, it is found that the desirable situation

in for the the Higher education institution management strategies for

developing citizenship of university students is considered highest ($\overline{x}=$

4.530). When consider each aspect, it is shown that technological condition

has the highest desirable mean ($\overline{x}$=4.572), followed by the government

policy aspect, which has a secondary desirable mean ($\bar{x}$=4.542). The

societal condition has the desirable mean of ($\overline{x}$=4.527) and the economic condition has the lowest desirable mean ($\overline{x}$=4.479).

| Research Procedure	Methodology	Outcomes
1. Study the Framework of School Accountability	**Participants**: 5 experts of School Management **Instrument**: Framework evaluation form - Examine feasibility and appropriateness of the framework Of school accountability	1.The Framework of School Accountability
2. Study the authentic state and the desirable state	**Population**: 395 school under the Office of The Basic Education Committee **Participants**: School Administration, Head of Teacher and Teachers **Instrument**: questionnaire **Data collection**: frequency, percentage, $\overline{x}$ and S.D.	2. The current state and the desirable state of school management to enhance the accoutability
3. Analyze strengths, weaknesses, opportunities and threats.	**Instrument**: questionnaire - Find Needs Index using $PNI_{Modified}$ -Order Needs Index -Analyze SWOT from $PNI_{Modified}$ and open questionnaire **Data collection**: $PNI_{Modified}$ and frequency	3. Needs Index, strengths, weaknesses, opportunities and threats
4. Draft the School management strategies to enhance the accountability	- Create TOWS Matrix - Match (WT) (WO) (ST) (SO) - Create draft strategies (main strategies, sub-strategies, directions, Key success targets)	4. 1st draft of the school management strategies to enhance the accountability
5. Examine the feasibility and appropriateness of the draft of the school management strategies to enhance the accountability	**Participants**: experts of Educational Administration ,Administrators, Head of Teacher and Teacher **Instrument**: strategic evaluation form - Examine feasibility and appropriateness of 1st draft strategies by experts and stakeholders individually - Analyze data using $\overline{x}$, S.D. and content analysis - Improve strategies according to experts and stakeholders' suggestions	5. The feasibility and appropriateness of the 1st draft management strategies. 6. 2nd draft management strategies of schools
6. Develop the school management strategies to enhance the accountability	- Examine the feasibility and appropriateness of the 2nd draft management strategies by experts and stakeholders through focus group discussion - Analyze data using content analysis - Improve strategies according to experts and stakeholders' suggestions	7. The feasibility and appropriateness of the 2st draft management strategies. 8. The school management strategies to enhance the accountability (Complete version)

Figure 2: Research Methodology Procedure Results, Discussions and Suggestions

3. Strengths, weaknesses, opportunities, and threats The Higher education institution management strategies for developing citizenship of university students

    3.1 The administration's strengths in Higher education institution for developing citizenship of university students is democratic participation (PNI modified= 0.4696) and democratic knowledge.

    3.2 The administration's weaknesses in higher education institution for developing citizenship of university students is democratic skill (PNI modified= 0.492)

    3.3 The administration's opportunities in higher education institution for developing citizenship of university students is technology conditions (PNI modified= 0.349)

    3.4 The administration's threats in higher education institution for developing citizenship of university students are government policy PNI modified= 0.502), social conditions (PNI modified = 0.500) and economic conditions (PNI modified= 0.496).

4. The Higher education institution management strategies for developing citizenship of university students

The researchers developed 5 main management strategies and 20 supplementary management strategies as follows:

(See Figure on the next page)

Results Discussion

1. The current situation and the desirable situation for The Higher education institution management strategies for developing citizenship of university students
1.1 The result regarding the current state of the institution of education administration to make students good citizenship was rated as a whole at a moderate level in the aspects of democratic knowledge, democratic skills, and democratic participation. When considering mean score in each aspect, it revealed that the aspect of knowledge about democracy was rated at the highest level. This result was congruent with Noknoi, V. (2003) when studying about the characteristics of good citizenship of students at Kasetsart University and found that students' good citizenship was rated at a moderate level. Likewise, Ahmet (2001) stated that education for democratic citizen should enhance the youths' knowledge, skills, values, and attitudes helping them to realize how to be democratic citizenship.

    1.2 The result concerning the expected state of the institution of education administration to make students good citizenship was rated at a high level in the aspect of democratic knowledge, democratic skills, and democratic participation. When considering each aspect, it showed that the mean score of the expected state in the aspect of democratic knowledge was rated at the highest level. This result was consistent with the Thai Civic Education's (2013) stating that it is necessary for democratic citizen to have enough substantial knowledge to be democratic citizen. In addition, the result was in accordance with the study done by Wiphattaphumprates, T. (2013) about democratic citizenship of students at Dhurakit University in the aspects of individual and family using 410 samples and

questionnaires about the citizenship in the democratic regime. The data were analyzed using descriptive statistics namely t-test and One Way ANOVA, and the results revealed that the students' democratic citizenship was rated at a high level.

The School management strategies to enhance the accountability

Main Strategy 1:
Reforming school management for improving the capacity of teacher and school management to enhance the accountability

Sub-strategy 1.1 Personnel Management focused on improving the capacity of teacher and school management to enhance the accountability
Sub-strategy 1.2 Budget Management focused on improving the capacity of teacher and school management to enhance the accountability
Sub-strategy 1.3 General Management focused on improving the capacity of teacher and school management to enhance the
Sub-strategy 1.4 Academic Affair Management focused on improving the capacity of teacher and school management to enhance the

Main Strategy 2:
Increasing the efficiency of school management focused on equity for opportunity to learn of students to enhance the accountability

Sub-strategy 1.1 Personnel Management focused on equity for opportunity to learn of students to enhance the accountability
Sub-strategy 1.2 Budget Management focused on equity for opportunity to learn of students to enhance the accountability
Sub-strategy 1.3 General Management focused on equity for opportunity to learn of students to enhance the accountability
Sub-strategy 1.4 Academic affair Management focused on equity for opportunity to learn of students to enhance the accountability

Main Strategy 3:
Developing the quality of school management for parents and community empowerment to enhance the accountability

Sub-strategy 1.1 Personnel Management for parents and community empowerment to enhance the accountability
Sub-strategy 1.2 General Management for parents and community empowerment to enhance the accountability
Sub-strategy 1.3 Budget Management for parents and community empowerment to enhance the accountability
Sub-strategy 1.4 Academic affair Management for parents and community empowerment to enhance the accountability

Main Strategy 4:
Enhancing the students learning outcome to enhance the accountability

Sub-strategy 1.1 Personnel Management for enhancing the students learning outcome to enhance the accountability
Sub-strategy 1.2 Budget Management for enhancing the students learning outcome to enhance the accountability
Sub-strategy 1.3 General Management for enhancing the students learning outcome to enhance the accountability
Sub-strategy 1.4 Academic Affair Management for enhancing the students learning outcome to enhance the accountability

Main Strategy 5:
Driving school management of physical and emotional well-being of students to enhance the accountability

Sub-strategy 1.1 Budget Management of physical and emotional well-being of students to enhance the accountability
Sub-strategy 1.2 Personnel Management of physical and emotional well-being of students to enhance the accountability
Sub-strategy 1.3 Academic Affair Management of physical and emotional well-being of students to enhance the accountability
Sub-strategy 1.4 General Management of physical and emotional well-being of students to enhance the accountability

1.3 The result about the current state of external variables concerning making the citizenship of students showed that technology was found important for institution of education administration in making students at a tertiary education level good citizenship, and Thai higher education institutes have tried to adopt various technologies to develop and enhance the administration and production of Thai graduates.

1.4 The result in terms of the current state of external variables concerning making the citizenship of students reported that the mean score of the expected state in the aspect of technology was rated at the highest level, which related to Smith (2005) mentioning that the strategy in education management helping to develop the citizenship should be a curriculum construction using information technology with a focus on students' potentials development using an analysis via basic information in a society. Furthermore, Print (2012) mentioned that the curriculum regarding citizenship should have an aim to enhance active citizen. With the acceptance of the effects of technological media using in communication, technology is considered significant to help students become good citizens.

2. Strengths, weaknesses, opportunities, and threats for the Higher education institution management strategies for developing citizenship of university students
2.1 The result in accordance with the strengths of the institution of education administration in making the citizenship of students manifested that the strengths of citizenship of students were democratic participation and democratic knowledge, helping higher education institutes have developed students to be knowledgeable in democracy and participants in democratic activities. This notion is in line with Tantisunthorn's, T. (2011) that to produce citizen is a preparation for a sustainable government by relaying values through training and practices in forms of various activities, and living together in democratic government. Barber (1984) stated that education management for citizenship is a direct instruction in educational institutes, participation in social activities, and participation in political matters in all levels.

2.2 The result in terms of the weaknesses of the institution of education administration in making citizenship of students revealed that the weakness of the citizenship of students was democratic skills, showing that higher education institutes have administered institution of education in the direction to support students' citizenship regarding democratic skills. Higher education institutes have taken responsibilities to enhance students' democratic skills, turning students to good citizens, social responsible people , good behavior people, well self-treated people, people well treating other people, people with good attitudes towards others, and people with maturity, intelligence, enabling to live oneself properly at one's social status in a society . Plainoi, N. (2002) said that education for citizenship should urge students to gain knowledge and more practice, create systemic thinking skills, understand oneself and others as well as understand nature and super nature and also the share the purpose of living together among human beings.

2.3 The result in the aspect of opportunities of the institution of education administration in making citizenship of students said that the opportunity of the citizenship of students was technology showing that the advancement of technology

has partially helped develop the students' citizenship with expected characteristics and has been a factor to ease a learning development of students, resulting in good citizenship. Higher education institutes should generate a new knowledge construct, leading to the creation of new innovative tools basing on technological base. This statement is concurrent with Siricharoen's, N. (2012) study in integrating the citizenship with future Thai democracy, depending on communication via integrating process to enhance the clear cut knowledge construct in terms of citizenship.

   2.4 The result regarding threats of the institution of education administration in making citizenship of students manifested that the threats in making citizenship of students were the government's policy, the state of economy, and the state of society, showing the government's policy, the state of economy, and the state of society have not supported the making of citizenship of students. Besides, there has not been an instant government policy to develop students' citizenship, a budget provided, and participation from community to support curriculum and learning activities about the students' citizenship.

3. The Higher education institution management strategies for developing citizenship of university students
The results showed that there have been three main strategies comprising: 1) a reform of institution of education administration to enhance students' democratic skills; 2) a reform of institution of education to enhance students' democratic participation; 3) a reform of institution of education to enhance students' democratic knowledge. Similarly, Samkokes, W. (2011) mentioned that higher education institutes should prepare students for future citizens of the world, good citizens of a country who have a sense of belonging, care for other people, and are self-responsible and a world creators.

Suggestions in Utilizing The Research Findings
   1. Institution of education administrators should support the use of modern technology to develop the students' citizenship. According to the results of the present study, it was found that the state of technology is an opportunity for the institution of education administration to make a citizenship of students. As such, the administrators of higher education institutes should adopt advanced technology in teaching and learning management and support budgets for the development of materials for use in citizenship learning. In addition, media campaign for the citizenship and the use of technology in conducting civil activities in institution of education should be supported.
   2. The main strategy higher education institutes should act on immediately is strategy 3 regarding a reform of institution of education to enhance students' democratic knowledge. According to the results of the present study, it was found that the democratic knowledge was strength for institution of education administration. Hence, higher education institutes should adopt strategy 1 and act on it immediately by containing Civil Education Subject in General Education Section, along with each subject through using project-based learning, which resulting in the more effective citizenship of students.

3. The main strategy higher education institutes should have aggressive plan on is strategy 1 regarding students' democratic skills in education. According to the results of the present study, it was shown that democratic skills was a weakness in institution of education administration in making a citizenship of students showing there should have been an aggressive plan to reduce weakness in institution of education administration, prevent the administration from being obstructed by external factors, give a focus on the development students' democratic skills through various international experiential learning with multi cross cultural environments, and contain Physical Education in General Education Section to enhance students' democratic skills.

4. Higher education institutes should manage an internationally experiential learning with multi cross cultural environment. According to the results of the present study, it was manifested that it is the most essential to manage an internationally experiential learning with multi cross cultural environment, and, thus, administrators of institution of education should give a support on this kind of learning. Ahmet (2012) stated that one of the characteristics of good citizenship is appreciating the diversity of values and cultures, races, and religions in a local context, a national context, and an international context.

Suggestions for Further Researches

1. Research studies on strategies for institution of education to create a good citizenship of students in various educational contexts should be conducted. According to the present study, the overall results only generalize on government universities and private universities under the control of Office of Higher Education, excluding specialized institutions and private colleges. Thus, there are no results shown about the citizenship of students affiliated in such contexts.

2. Research studies on the appropriateness of strategies for the institution of education administration to create a good citizenship of students as categorized by types of university should also be conducted. The universities, for example autonomous universities under the control of a government, government universities, Rajabhat universities, Rajamangala universities, and private universities should have their own strategies to create a good citizenship of students.

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THE EFFECT OF PARENTAL EMOTIONAL STABILITY AMONG INDIAN ADOLESCENT'S PSYCHOSOCIAL ADJUSTMENT IN KERALA, INDIA

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Abstract: In India, the emotional stability of the parents has become an increasingly serious societal issue but unfortunately, it is not given importance within the Indian context. To help address this problem, the present study attempted to investigate the influence of perceived parental emotional stability on adolescents' psychosocial adjustment being mediated by parental bond, family relationship, and parental self-efficacy. The results of the study found that the higher the participants' perception of their parental emotional stability, the more positive the perception of their family relationship, the higher the perception of their parental self-efficacy and subsequently, the higher is their reported level of psychosocial adjustment. It also found that the higher the participants' perception of their parental emotional stability, the lower the perception of their parental bonding, the higher the perception of their parental self-efficacy and subsequently, the higher is their reported level of psychosocial adjustment.

Keywords: Parental Emotional Stability, Adolescents' Psychosocial Adjustment, Parental Bond, Family Relationship, and Parental Self-Efficacy.

Introduction

Emotional stability is a personality trait recognized by personality theorists (e.g., Cattell & Schuerger, 2003). Smithson (1974) viewed emotional stability as a multi-trait non-cognitive psychological concept. He described it as a process in which personality is continuously striving for greater sense of emotional health, both intra-psychically and intra-personally. It enables the person to develop an integrated and balanced way of perceiving the problems of life. *Emotional maturity* is another term which goes along with the concept of emotional stability. To be emotionally mature means to signify the capacity to react emotionally in provision of the requirements that a situation imposes. The most outstanding mark of emotional maturity according to Coleman (1944) is the ability to bear tension.

Emotional Stability and Parents

Parents are the provider of physical, intellectual, and emotional security and development of the child. A child gets general literacy and scientific knowledge at school, but general wisdom of life is given by parents as they themselves understand it. Parents develop their parenting behavior based on several factors such as socialization experiences, individual familial practices, individual personality of the child, and family cultural background (Belsky, 1984). Parents' relationships between each other as well as with their children are important for children's cognitive and emotional development and the stability of families. Good quality relationship between parents and between parents and their children can make a significant difference to young people's satisfaction with their family situation. Parents and families play an enormous role in shaping a child's social and emotional development.

Parental Emotional Stability and Parental Bond.

The warm bonds with one's parents can have a lasting impact on one's life and are reasonably stable over time (Wel et al., 2000). In a longitudinal study, Wel, Bogt, and Raaijmakers (2002) demonstrated that parental bonds have a lasting significant influence on the well-being of adolescents and young adults aged 12 to 30 years. In fact, even for independent adults, "the parental bond appears to be as important to their well-being as having a partner or a best friend" (Wel et al., 2002, p. 317). In contrast, rejecting parenting (characterized by a lack of emotional warmth) has been significantly associated with a lack of self-acceptance, low self-esteem, and an inability to be self-directed (Schlette et al., 1998). Moreover, poor parental bonds have been linked to internalizing problems, stress, and depression (Burstein et al., 2006). The emotional expression of parents influences the emotional development of their child. A study by Haft and Slade (1989) revealed that securely attached parents tend to be more competent, sociable, and more comfortable in dealing with different kinds of relationships in life. A key tenet of attachment theory states that caregiver behaviors of responsiveness to perceived threat signaled by the child's affective manifestations come to provide a context within which the child organizes emotional experiences. The strategies resulting from the child's organization of emotional experiences are, then, used to regulate felt security and are viewed to be contingent upon the individual's history of regulating distress with caregivers (Alexander et al., 1998). If a child perceives from a parent that he or she is not wanted, hostility and aggression can arise within the child (Bos, Sandfort, de Bruyn, & Hakvoort, 2008).

Parental Emotional Stability and Family Relationships

A number of researches from different fields confirm the importance of the family unit as the provider of safe, stable, and nurturing environments for children. Unquestionably, children who are reared in safe and stable environments have better short-term and long-term adjustment than children who are exposed to harmful experiences. More importantly, family stability is defined not as a specific family structure or condition but, rather, as a family relationship in which care giving practices provide children with the consistent nurturing care they need in order to thrive. Parents living in poverty or in economic stress, for example, experience higher levels of emotional strain and mental health problems (McLoyd, 1998) which can impair their ability to engage with and support children, as well as increase their likelihood of using harsh or punitive parenting practices (Conger et al., 1992; McLoyd, 1998). Jasbir (2000) studied emotional maturity in relation to environmental factors and found a significant relationship between emotional maturity and school, home, and psychological factors. Characteristics of the home environment such as warmth, emotional availability, stimulation, family cohesion, and day-to-day activities have also been implicated in the notion of family stability (Roderick, 2002). Roderick posited that children who experience family stability have caregivers who remain constant, consistent, and connected to them over time. In another study, it was found that parents who talked more about emotions, expressed positive emotions, and who used reassuring and emotionally laddered

explanations in reaction to their children's emotional expressions had children who displayed better regulation of their emotions with their peers (Denham, 1998).

Parental Emotional Stability and Parental Self-Efficacy

Parents are more likely to engage in parent-child activities if they have the confidence that their behavior will, indeed, have a positive effect on their children. In contrast, parents who feel that they have little or no control over their children's lives and their children's environment are less apt to engage in promotive strategies (Furstenberg, 1993). In the parenting domain, self-efficacy had been identified as a key construct in terms of its relationship to various outcomes, including parenting behaviors and parenting stress (Coleman & Karraker, 1998). Within the research literature on families of children with developmental disabilities, parental self-efficacy has been explored in two ways, to date: (1) as a predictor of parental outcomes, and (2) as an outcome variable itself. In research addressing the former, several studies have established that self-efficacy or closely-related constructs are predictive of parental stress (e.g., Frey, Greenberg, & Fewell, 1989; Friedrich, Wilturner, & Cohen, 1985; Krauss, 1993). Most researchers addressing self-efficacy as an outcome variable have operationalized it in terms of feelings of parental competence. For example, Oyserman, Bybee, Mowbray, and Kahng (2004) reported that parents who feel efficacious are less likely to feel overwhelmed by parenting tasks, and may also be more warm, nurturing, and less punitive in their behavior management. Furthermore, it was found that feelings of self-efficacy are related to lower levels of parenting stress. In contrast, people with lower self-efficacy tend to doubt themselves and experience high levels of anxiety when faced with adversity, assume more responsibility for task failure than success, interpret challenges as threats, avoid difficult tasks, and cope dysfunctionally. In light of these cognitive, emotional, and behavioral manifestations, it is critical to study self-efficacy within the domain of parenting. Bandura's (1997a) theory of self-efficacy suggests that an individual's perceived parental self-efficacy is positively related to parental nurturing behaviors. Parents with a high level of perceived self-efficacy in specific parenting tasks are likely to exhibit and, therefore, report development behaviors with their children who are 17 years old or younger. Perceptions of parents concerning their ability to care for their children can yield valuable information upon which nurses and other health care professionals can base their teaching and support to help parents give high quality care for their children (Zahr, 1991). This information is important because, if a relationship is found, it will provide the basis for the development of intervention strategies to facilitate and support parents' capacity to nurture their children by helping them to strengthen their sense of efficacy in their parenting role.

Parental Emotional Stability and Psychosocial Adjustment

Emotions are personal and subjective feelings that arise from complex glandular activities, cognitive, and conditional variables. If parents can manage their emotions in a proper way, this may be a strong tool for bringing success and happiness in the life of their children. . Uncontrolled emotions may be expressed in the form of struggles and conflicts which may be interpersonal or intrapersonal. In day-to-day life, they affect our relations with other members of the family, society, nation, our

self-image, and our overall performance (Nisha & Budhisagar, 2013). Past research had demonstrated that emotional changes happening in parents influence the psychosocial adjustment of their children. For example, in a study conducted by Adam and Chase-Lansdale (2002), it was found that when separations from parent figures increased, adolescents showed higher levels of adjustment problems on an index measuring cognitive, emotional, academic, and behavioral functioning. It was also found that multiple changes in the mother's partners have a cumulative negative effect on her children's social, emotional, educational, and behavioral outcomes (Capaldi & Patterson, 1991; Kurdek, Fine, & Sinclair, 1994). Research had demonstrated that children at the adolescence stage require parental love, care, warmth, and serious attention in order to adjust adequately and set effective goals in the environment in which they find themselves. Parents have major roles to play in the adjustment process of adolescents. First year students (college/university) with higher levels of perceived parental and peer social support showed better adjustment (i.e., higher well-being and happiness) and less distress (less depression and anxiety) than those with lower levels of perceived parental support (Cutrona, Cole, Colangelo, Assouline, & Russel, 1994; Holahan, Valentiner, & Moos, 1995). It is expected that perceived social support from parents and friends will predict adjustment to college among first year students and that social support will interact with stress to predict adjustment to college.

Parental Bond and Psychosocial Adjustment
Many studies highlight the fact that parents play a key role in the psychosocial adjustment of adolescents (Rice, 1990), whether in the development of identity (Allen et al., 1994), a positive self-image (Wenk et al., 1994), life satisfaction (Leung & Leung, 1992), social competence and other skills needed to deal with emotional and behavioral problems (Windle & Miller-Tutzauer, 1992). According to the attachment theory, the quality of parent-child relationship plays an important role in the psycho-emotional development of the individual. Since all infants interact with others, every human being develops an attachment bond; even children who have been abused by a parent or caregiver generate a kind of attachment (Bowlby, 1988). Several studies have documented that attachment to parents is linked to the emotional, social, and psychological well-being of young adults (Armsden & Greenberg, 1987). Moreover, late adolescents' parental attachment security was found to be indirectly associated with functioning in peer and romantic relationships and subsequent emotional adjustment. Attachment insecurity, particularly when characterized by worries about abandonment and not being loved, is associated with rigid and unrealistic rules concerning self-worth and a depleted self-esteem (Roberts et al., 1996). In addition, insecure attachment was found to negatively affect interpersonal functioning and self-esteem, and was shown to contribute towards the development of depressive symptoms.

Family Relationships and Psychosocial Adjustment
Children's home/family life has long been considered a primary environmental context influencing their cognitive, social, emotional, behavioral, and physical development (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000).

Psychological literature also recognizes the influence of family processes in the course of human development (Collins & Laursen, 2004). Several researchers attempted to examine the influence of family relationships on adolescent adjustment and academic achievement. In an attempt to investigate family relationships and school behavior and problems, Paul (1996) revealed that there is significant degree of conflict with less cohesion and organization in emotionally disturbed families. On the other hand, families of successful students showed high achievement orientation and organization in the family, regardless of social class (Paul, 1988). Steven (1990) showed a concomitant relationship between family relationships and school outcome variables. The results of Whitehead and Deborah's (1991) study indicated that the best predictor of grade point average was the intellectual cultural orientation of the family relationships. According to Kumar and Lal (2014), home environment, including parental encouragement, involvement, interest, behavior, aspirations, parenting skills and parenting styles have direct influences on the academic achievement of students. A study by Nihiral, Nink, and Edward (1985) revealed significant influences of changes in home environment on social adjustment in adolescents. They conducted a study to explore the relationship between family relationships, home adjustment and academic achievement; the findings revealed that home adjustment is influenced by degree of support and help and commitment in the family (cohesion), extent to which set rules are followed in the family (control), the amount of anger and aggression in the family (conflict), the degree of interest in political, social, and cultural activities (intellectual-cultural orientation), and the extent to which family members are assertive, self-sufficient, and make their own decisions (independence). Numerous studies have found out that family-instability variables, including changes in marital status and household composition, separations from parent figures, changes in physical residence, and episodes of antisocial behavior or mental or physical illness in the family can affect the psychosocial development of adolescents. However, researchers opined that the main reason for these influences is low economic resources in the family (e.g., Ackerman et al., 1999; Linver, Brooks-Gunn, & Kohen, 2002).

Parental Self-Efficacy and Psychosocial Adjustment
The basic premise of self-efficacy theory – "people's belief in their capability to produce desired effects by their own actions" (Bandura, 1997b, p. 6) is the most important determinant of the behaviors people choose to engage in and how much they persevere in their efforts in the face of obstacles and challenges. The theory also maintains that these efficacy beliefs play a crucial role in psychological adjustment, psychological problems, physical health, as well as professionally guided and self-guided behavioral change strategies. Self-efficacy beliefs play a major role in a number of common psychological problems, as well as in successful interventions for these problems. It had been demonstrated that low self-efficacy expectancies are an important feature of depression (Bandura, 1997; Maddux & Meier, 1995).

Parental self-efficacy beliefs are consistently found to be predictors of children's behaviors and development (Coleman & Karakker, 2003). A meta-analysis was organized to examine the potential roles of parental self-efficacy in

relation to parent and child adjustment and the role that parental cognitions such as self-efficacy beliefs play in understanding the behaviors and emotions of families (Jones & Prinz, 2005). This analysis focused mainly on studies conducted after 1995, and this review examined 47 empirical studies investigating the relationship between parental self-efficacy and psychosocial variables such as stress and depression. The research review revealed that there is a strong correlation between parental self-efficacy and stress (Erdwins, Buffardi, Casper, & O'Brien) and depression (Gross, Sambrook, & Fogg, 1999). Moreover, a mother's sense of self-efficacy has been found to correlate with the child's academic outcomes at school (Ardelt & Eccles, 2001). In the latter study, parental self-efficacy beliefs were found to be significantly related to children's self-efficacy beliefs and indirectly related to children's positive adjustment with the environment.

Parental Bond, Family Relationships, and Parental Self-Efficacy
A number of researchers focused on the relationship between parental behavior and parental self-efficacy. Among others, it was found that high maternal self-efficacy is linked to adaptive parenting practices such as non-punitive, responsive, and stimulating caretaking (Donovan, 1981; Donovan & Leavitt, 1985; Donovan et al., 1990; Unger & Wandersman, 1985) as well as more direct and active parenting interactions (Mash & Johnston, 1983). Conversely, low maternal self-efficacy is associated with defensive and controlling parenting practices (Donovan et al., 1990) and perceptions of child difficulty (Bugental & Shennum, 1984; Gibaud-Wallston & Wandersman, 1978; Halpern et al., 1994). Besides these, high maternal self-efficacy is linked to fewer reported child behavioral problems (Johnston & Mash, 1989) and, in contrast, low maternal self-efficacy is connected to actual child behavioral problems (Gibaud-Wallston & Wandersman, 1978).

There is a scarcity of research exploring the influence of parental bond and parental self-efficacy. According to Bowlby's (1988) theory, caregivers who respond with relative consistency and warmth to a young child's needs foster a sense of a "secure base" that permits the child to regulate anxiety while exploring novel surroundings. A line of research suggests that parental emotional responsiveness may be essential for promoting self-efficacy, especially for social outcomes (Mallinckrodt, 2000).

Method

Participants
A sample of 1,203 participants (male: n=576, 47.9%; female: n=627, 52.1%) was employed to test the hypotheses of this study. Their ages ranged from 13 to 18 or older, with a median age within the range 16 to 17 years. The majority of the participants were enrolled in Classes 11 and 12 (n=1,006, 83.8%), with 195 (17.3%) participants enrolled in Classes 9 and 10.

Materials
Participants responded to a six-part questionnaire designed for the purpose of this study. Part 1 consisted of items written to elicit the participants' demographic

information relating to their gender, age, and educational level. Part II consisted of the 45-item Parental Emotional Stability Questionnaire (PESQ) designed to measure the participant's perception of their parents' emotional stability. Part III consisted of the 25-item Parental Bonding Instrument (PBI) developed by Parker, Tupling, and Brown (1979) to measure parental bonding from the participant's point of view. Part IV consisted of the 25-item Index of Family Relationship (IFR), developed by Hudson (1997) to measure family relationship problems. More specifically, the scale was designed to measure the extent, severity, or magnitude of problems that family members have in their relationship with one another. Part V consisted of the 10-item Perceived Parental Self-Efficacy Scale (PPSES), adapted from the General Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995), to measure perceived parental self-efficacy from the participant's point of view. Part VI consisted of the 24-item Children and Adolescent Social and Adaptive Functioning Scale (CASAFS) which was developed by Price, Spence, Sheffield, and Donovan (2002) to measure the social functioning of children and adolescents.

Results

Structural equation modeling was employed to test the three posited hierarchical path models of the present study. According to the first model, the perceived parental emotional stability factors of feelings, behavior, and cognition are hypothesized to be *directly* associated with the criterion variable of psychosocial adjustment. As stated earlier, based on the accumulated research evidence on the relationship between perceived parental emotional stability and the aforementioned variable of psychosocial adjustment, it is hypothesized that the adolescent participants' reported level of parental emotional stability will evidence direct relationship with their level of psychosocial adjustment, such that the more positive they perceived their parental emotional stability factors of feelings, behavior, and cognition to be the more positive their reported level of psychosocial adjustment. The fit of this direct path model was tested via structural equation modeling. This statistical technique analyzed the covariance matrix generated from the model's measurement variables.

The results showed that the overall chi-square goodness-of-fit index was significant, χ^2 (*df* = 15) = 534.265, *p* <.001. Furthermore the incremental fit indices (NFI, IFI, TLI, CFI) are all low (range: 0.191 – 0.157). These fit indices indicated that the model provided a very poor fit relative to a null or independence model (i.e. the posited model represented only between 15% to 19% improvement in fit over the null or independence model), and failed to support the hypothesized structure of the posited direct path model. The model also yielded an Akaike Information Criterion (AIC) value of 560.265. The AIC is used for comparing the goodness-of-fit of competing models.

The indirect mediation path model hypothesizes that the perceived parental emotional stability factors of feelings, behavior, and cognition are directly and indirectly associated with the criterion variable of psychosocial adjustment. Once again, based on the accumulated research evidence on the relationships between parental emotional stability, parental bonding, and family relationship, and the aforementioned variable of psychosocial adjustment, it is hypothesized that the

participants' reported parental emotional stability will have an indirect relationship with their level of psychosocial adjustment such that the more positive they perceived their parental emotional stability factors of feeling, behavior, and cognition to be, (1) the more positive their reported levels of parental bonding and family relationship, and (2) subsequently, the more positive their reported level of psychosocial adjustment. The fit of this path model posited to represent the indirect structural relationships between perceived parental emotional stability and the level of psychosocial adjustment, being mediated by the factors of parental bonding and family relationship was tested via structural equation modeling.

Similar to the direct model (Model 1), the overall chi-square goodness-of-fit index was significant, χ^2 ($df = 7$) = 417.264, $p < .001$. Furthermore, the incremental fit indices (NFI, IFI, TLI, CFI) are all low (range: 0.317 – 0.343). These fit indices indicated that the model provided a very poor fit relative to a null or independence model (i.e. the posited model represented only between 31% to 34% improvement in fit over the null or independence model), and failed to support the hypothesized structure of the posited indirect path model. The model also yielded an Akaike Information Criterion (AIC) value of 459.264. The AIC is used for comparing the goodness-of-fit of competing models. Figure 4 presents the indirect model together with the significant standardized regression coefficients ($p < .05$).

The full mediation path model hypothesizes that the perceived parental emotional stability factors of feelings, behavior, and cognition are directly and indirectly associated with the criterion variable of psychosocial adjustment. Once again, based on the accumulated research evidence on the relationships between parental emotional stability, parental bonding, family relationships, parental self-efficacy and the criterion variable of psychosocial adjustment, it was hypothesized that the participants' reported parental emotional stability will have an indirect relationship with their level of psychosocial adjustment, such that the more positive they perceived their parental emotional stability factors of feelings, behavior, and cognition to be, (1) the more positive their reported levels of parental bonding and family relationships; (2) the more positive their reported levels of parental bonding and family relationships, the higher their perception of their parental self-efficacy; and (3) subsequently, the more positive their reported level of psychosocial adjustment. The fit of this full path model posited to represent the direct and indirect structural relationships between perceived parental emotional stability and the level of psychosocial adjustment, being mediated by the factors of parental bonding, family relationships, and parental self-efficacy was tested via structural equation modeling.

Although the overall chi-square goodness-of-fit value was significant, χ^2 ($df = 1$) = 59.727, $p < .01$, the incremental fit indices (NFI, IFI, TLI, CFI) are all above 0.90 (range: 0.904 – 0.907). These fit indices indicated that the model provided a very good fit relative to a null or independence model (i.e., the posited model represented between 90.4% to 90.7% improvement in fit over the null or independence model), and supported the hypothesized structure of the posited full path model. The model also yielded an Akaike Information Criterion (AIC) value of 113.727. The AIC is used for comparing the goodness-of-fit of competing models.

The results showed that Model 1 (direct model) and Model 2 (indirect model)

fitted the data set's covariance matrix very poorly, indicating that they do not reflect the structural linkages hypothesized for these two models. Model 3 (full path model), on the other hand, fitted the study's covariance matrix very well, suggesting that the full mediation model posited to represent both the direct and indirect influences of the participants' perception of their parental emotional stability on their level of psychosocial adjustment supported the structural linkages hypothesized for this model. Furthermore, direct model comparisons indicated that the full path model fitted the data significantly better than the direct and indirect models, χ^2 (df = 14) = 474.538, p <.001 and χ^2 (df=6) = 357.992, p <.001, respectively. These comparison results suggested that the proposed full path model may provide a better representation than either the direct or indirect model of the way the student participants' perception of their parental emotional stability influenced their level of psychosocial adjustment. The goodness-of-fit of competing models can also be compared by means of the Akaike Information Criterion (AIC) measure (Akaike, 1987). In evaluating hypothesized models, the AIC takes into account both model parsimony; that is, achieving a higher degree of fit per degree of freedom used, and model fit. Simple models that fit well receive low scores, whereas poorly fitting models get high scores. A small AIC generally occurs when small chi-square values are achieved with fewer estimated coefficients. This shows not only a good fit of observed versus predicted co-variances but also a model not prone to "overfitting" (Jöreskog, 1993). Comparing the AIC measures for the three hierarchical models, it is evident that the full path model provided a lower AIC value (113.727) than the either the direct model (560.26) or the indirect model (459.26). These parsimony fit indices indicate that the full path model is both more parsimonious and better fitting than either the direct model or the indirect model.

Results from the path analysis indicated that the PESQ factors of feelings and behavior exerted significant direct influences on the participants' reported level of psychosocial adjustment. Thus, the higher the participants' perception of their parental emotional stability along the dimensions of feeling and behavior, the higher is their reported level of psychosocial adjustment (Beta=.109 and Beta=.068, respectively, p<.05).

The results also showed that the PESQ factors of feelings and behavior exerted significant indirect influences on the participants' reported level of psychosocial adjustment. Thus, for both PESQ factors, the higher the participants' perception of their parental emotional stability along the dimensions of feelings and behavior, the more positive their perception of their family relationship (Beta=-.109 and Beta=-.102, respectively); the more positive their perception of their family relationship, the higher their perception of their parental self-efficacy (Beta=-.312) and, subsequently, the higher is their reported level of psychosocial adjustment (Beta=.354). For the PESQ factor of behavior, the higher the participants' perception of their parental emotional stability along the dimension of behavior, the lower their perception of their parental bonding (Beta=-.162); the lower their perception of their parental bonding, the higher their perception of their parental self-efficacy (Beta=-.08) and, subsequently, the higher is their reported level of psychosocial adjustment (Beta=.354). The PESQ factor of behavior also exerted its indirect influences on the participants' level of reported psychosocial adjustment via

the mediator factors of perceived parental self-efficacy and family relationships. Thus, the higher the participants' perception of their parental emotional stability along the dimension of behavior, the higher their perception of their parental self-efficacy (Beta=.174) and the more positive they perceived their family relationships (Beta=-.102) and, subsequently, the more positive is their reported level of psychosocial adjustment (Beta=.354 and Beta=-.089, respectively). It should be noted that the PESQ factor of cognition was not found to exert any significant direct or indirect influences on the participants' reported level of psychosocial adjustment ($p > .05$).

Discussion

The direct model posited that the perceived parental emotional stability factors of feeling, behavior, and cognition were hypothesized to be *directly* associated with the criterion variable of psychosocial adjustment. It was hypothesized that the South Indian adolescents' reported level of parental emotional stability has direct relationship with their level of psychosocial adjustment such that the more positive the adolescents perceived their parental emotional stability factors of feeling, behavior, and cognition, the more positive is their reported level of psychosocial adjustment.

The results of path analysis indicated that the participants' perception of their parents' emotional stability factors of feeling and behavior have direct influence on their reported level of psychosocial adjustment. Their parents' level of emotional stability along the dimensions of feeling and behavior are positively associated with their reported level of psychosocial adjustment. These findings suggested that the more positive their perception of their parents' emotional stability factors of feeling and behavior, the more positive is their reported level of psychosocial adjustment. These results are consistent with literature on parental emotional stability and psychosocial adjustment. For example, Qian and Xia (2001) stated that parent's behavior influences psychosocial adjustment of adolescents. Hall and Bracken (1996) suggested that negative parenting impacts children's behavior and feelings negatively. Davies and Cummings (1994) reported that parent's behavior and feelings strongly affected the psychosocial adjustment of adolescents. It can, thus, be inferred that positive parental behavior can positively influence adolescents' psychosocial adjustment and that, conversely, negative parental behavior can negatively influence adolescents' psychosocial adjustment. No significant relationship was identified as to the effect of cognition within the context of parental resilience to stress on adolescents' process of responding to life's conditions, demands, and stresses. This could be because the factor of cognition basically represents the positive and negative thoughts parents have, and thoughts by itself might not have an impact on children's manner of responding to life's stresses; only parents' feelings and behavior are noticed or observed by their children.

Research had demonstrated that children at the adolescence stage require parental love, care, warmth, and serious attention in order to adjust adequately and set effective goals in the environment in which they find themselves. Parents have

major roles to play in the adjustment process of adolescents (Cutrona et al., 1994; Holahan et al., 1995).

The indirect mediation path model hypothesized that the perceived parental emotional stability factors of feeling, behavior, and cognition are *indirectly* associated with the criterion variable of psychosocial adjustment. The path model was tested via structural equation modeling. The fit of this path model posited to represent the indirect structural relationships between perceived parental emotional stability and the level of psychosocial adjustment, being mediated by the factors of parental bonding and family relationships. The following section presents detailed discussion of these findings. Results obtained from the indirect path model showed that Indian adolescents' perception of their parental emotional stability would have an indirect relationship with their level of psychosocial adjustment such that the more positive they perceived their parental emotional stability factors of feelings, behavior, and cognition, the more positive their reported level of parental bonding and, subsequently, the more positive is their reported level of psychosocial adjustment. In a recent longitudinal study, Wel et al. (2002) found that parental bonds have a lasting significant influence on the well-being of adolescents and young adults aged 12 to 30 years and that, even for independent adults, the parental bond appears to be as important to their well-being as having psychosocial adjustment.

This study's findings also suggested an indirect relationship between participants' perceived parental emotional stability and their level of psychosocial adjustment such that the more positive they perceived their parental emotional stability factors of feelings, behavior, and cognition, the more positive their reported level of parental bonding and, subsequently, the more positive is their reported level of psychosocial adjustment. Parker et al. (1979) proposed that parent-child bonds are affected by the characteristics of the child, the parents, and the reciprocal relationship between them. Results of path analysis revealed that participants' perception of their parents' emotional stability factors of feelings and behavior have both *direct* and *indirect* influences on their reported level of psychosocial adjustment, being mediated by their family relationships. The indirect relationship suggested that the more positive the adolescents' perceived parental emotional stability factors of feelings and behavior, the more positive is the quality of their family relationships. Bean et al. (2004) proposed that when the emotional context in a family is high in affection, warmth, and trust, parents and children are likely to have a better relationship as they enjoy having activities together and are more likely to communicate openly.

The current findings indicated that the participants' perception of their parents' emotional stability along the dimension of feelings has direct influence on their level of psychosocial adjustment. However, when mediated by parental bond, no indirect relationship was found. Parental bond, on the other hand, was found to be significantly related to parental self-efficacy which, in turn, indirectly influences the participants' level of psychosocial adjustment. This translates into the finding that the higher the participants' perception of their parents' feelings, the higher is their psychosocial adjustment. It was also found, however, that parental bond which pertains to participants' degree of closeness towards their parents does not have any

significant indirect influence on their level of psychosocial adjustment, suggesting that being close to parents alone does not necessarily impact on their adjustment to life's demands.

Limitations of the Study

Before discussing the implications of the current study's findings, some limitations of this study should be noted. After all, there are limitations in most, if not all, empirical studies; this study is no different. As such, the findings obtained and the conclusions drawn from the present study must be interpreted with caution.

First of all, since the research design of this study was cross-sectional and descriptive, no definitive conclusions can be drawn about the causal sequential effects (both direct and indirect) between the models' exogenous, mediator, and criterion variables. In other words, the observed significant path coefficients denote only relationships and not causality.

This study utilized a self-report measure which required participants to recall and rate a number of perceived factors (e.g., parents' emotional stability, parental self-efficacy, parental bond, etc.). Such a retrospective style of responding forces participants to rely on their memory when responding to the study's questionnaire items. Reliance on memory *per se* is clearly subjected to memory lapses/errors which can adversely affect the accuracy of the participants' true feelings or responses. Moreover, as the veracity of responses could not be validated in the survey, this meant that the researcher had to accept the responses at face value and assume that the respondents replied to the questions honestly.

Another limitation is the lack of theoretical perspectives and empirical findings on the impact of perceived parental emotional stability on adolescents' psychosocial adjustment, being mediated by selected factors, within the South Indian context, all together or independently of each other, for that matter. Discussion relied heavily on Western perspectives and studies which may not necessarily reflect Indian culture and values.

The findings of the current investigation should, indeed, be interpreted with some caution because of some intervening or limiting factors beyond the scope of this study. Nonetheless, despite some identified limitations, it is anticipated that this study would provide valuable knowledge and database for a number of helping professionals such as psychologists, social workers, school counselors, other mental health practitioners. Additionally, a study of this nature would benefit behavioral scientists and researchers who are interested in the further investigation of the interrelationship between parental emotional stability, psychosocial adjustment, and the other selected key variables of this study. Thus, the contribution of this study towards expansion of the literature cannot be overemphasized.

Implications

With the above limitations in mind, the findings of the present study carry a number of implications for the conceptualization and understanding of parental emotional stability within the Indian context. First, this topic is relatively new and very little research has been conducted on this subject within the Indian setting. The present study is one of the earliest studies that explored the relationship between parental

emotional stability and the psychosocial adjustment of South Indian adolescents. Thus, the findings offer an expansive view of the interplay among the selected key variables, within a non-Western setting.

Moreover, the theory-based path models employed in the present study and the obtained findings can serve as a knowledge resource and database for mental health practitioners, teachers, and school/college administrators towards the development and implementation of intervention strategies that could prove helpful in promoting better psychosocial adjustment among Indian youths.

Third, the current findings offer a number of suggestions aimed at the active involvement of parents and adolescents in regulating their emotions positively. The identification of specific variables associated with emotional stability (e.g., emotive factors of feelings, behavior and cognition) allows for targeting parents who appear to be at risk for emotional instability by raising their awareness and providing education for both parents and adolescents. School administrators, social workers, teachers, and allied practitioners can collaborate in initiating and implementing remedial measures aimed at parents and youths on how to regulate emotions, such as seminars, workshops, topic inclusion in PTA meetings, invitational lectures, or forums hosted by experts.

Finally, armed with vast information generated from the present study, trainers and family counselors working with families in South India can help educate local fathers and mothers on their impact on child outcomes. In addition, educational/training institutions can use the information to provide community-based seminars and workshops on related issues such as 'effective parenting', 'importance of parental emotional stability, 'importance of adolescent psychosocial adjustment' and suchlike. As parents and teachers gain more exposure on these topics, they can incorporate the new knowledge into their home life, classroom activities, educational materials, and other life domains.

Conclusions

The present generation of parents in Kerala, South India has been observed to be overwhelmed with many responsibilities, such that increasingly less time is spent with their children. Children, in turn, face various problems, most of which stem from such technology-based issues as Internet addiction or too much exposure to social media. Indian parents must charge themselves with higher responsibility to raise responsible children in the society. By the same token, society expects parents to do their duties responsibly in order to create healthy and productive citizens of the future. It can, thus, be concluded that in order for children to thrive in good direction, parents must develop positive emotional stability in terms of their feelings, behavior, and cognition. The findings of this study generally indicate that parental emotional stability factors of feelings and behavior have direct influences on adolescents' reported level of psychosocial adjustment. However, despite the reported 100% literacy rate of people in Kerala, the news that they read every day are about children who were abused and maltreated by their parents. This emanates from the unhealthy emotional conditions of parents that are reflected in their unfavorable parenting styles. On the other hand, this study also found that adolescents in Kerala are confused about their parents' cognitive processes as most

local parents do not willingly spend time to discuss their thoughts with their children. Modern Indian parents appear to be constantly adopting the Western mindset in raising their children; consequently, they lose a certain degree of parental emotional stability on the cognitive level. It can be concluded that the lesser the likelihood of parents sharing their thoughts to their children, the more distant their communicative process becomes. Adolescents are creative, energetic, and enthusiastic individuals. Their development should be coursed through by parents as normally as possible, so as to avoid future complications. The findings of the present study suggest that Indian parents should be more nurturing, affectionate, and interactive with their children on a daily basis. This will facilitate a more open communication between them and, in the process, initiate an emotional bond. As there are only a few studies on the parental emotional stability of South Indian parents, this study represents a significant step in shedding light on how perceived parental emotional stability creates an impact on the psychosocial adjustment of adolescents, within the Indian context. Thus, it can also be concluded that cultural parameters and traditions play an important role in the psychosocial development of Indian adolescents, in addition to the impact of parental emotional stability.

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THE RELATIONSHIP BETWEEN THE USE OF INDIRECT LANGUAGE LEARNING STRATEGIES AND CHINESE LANGUAGE ACHIEVEMENT IN READING AND WRITING AMONG STUDENTS IN YEARS 7 TO 10 AT ASCOT INTERNATIONAL SCHOOL IN BANGKOK, THAILAND

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Abstract: This study aimed to examine the use of indirect language learning strategies and the relationship between those strategies and Chinese academic achievement of year 7 to year 10 students who are learning Chinese as a foreign language at Ascot International School in Bangkok, Thailand. The study followed a quantitative research methodology utilizing two research instruments: the questionnaire of indirect learning strategies for Chinese learning and the unit quizzes of the IGCSE (International General Certificate of Secondary Education) Chinese course. The study was carried out during the second term of academic year 2015-2016 with 91 respondents. The use of indirect learning strategies focused on the use of metacognitive, affective and social language strategies. The Chinese achievement focused on reading and writing achievement. The study resulted in the following main findings. Year 7 to year 10 students used at a high level both metacognitive and social strategies for their Chinese learning. They used affective strategies at a medium level. Also, the use of overall indirect learning strategies was medium. There was a positive significant relationship between the use of metacognitive strategies and Chinese achievement. There was no significant relationship between affective strategies and Chinese achievement. There was a positive significant relationship between the use of social strategies and Chinese achievement. There was a positive significant relationship found between the use of overall indirect learning strategies and Chinese achievement as well. Recommendations for Chinese teachers, students and future researchers are also provided in this study.

Keywords: Indirect Language Strategies, Metacognitive Strategies, Affective Strategies, Social Strategies, Chinese Achievement, Learning Chinese as a Foreign Language.

Introduction

Foreign language learning is a traditional subject to learners. Contemporary research of language learning strategies (LLS) started since the 1970s. At the beginning stage, the research focused on successful LLS. In the1980s, the main research field was more associated with psychological areas. O'Malley and Chamot (1990) divided language learning strategies into three categories, metacognitive, cognitive and social affective (Lee, 2010; Oxford, 2003).

Oxford (1990) classified strategies of foreign language learning into two main categories: direct learning strategies and indirect learning strategies. Direct learning strategies include three aspects: memory strategies, cognitive strategies and compensation strategies. Indirect learning strategies consist of three aspects: metacognitive strategies, affective strategies and social strategies. Based on this theory, Oxford (1990) produced a 5-point Likert scale questionnaire-Strategy Inventory for Language Learning (SILL). SILL aims to investigate the use of foreign language learning strategies.

Appropriate language strategies play an essential role in learners' achievements and improved their language skills (Thompson & Rubin, 1996). Starting from Ascot International School academic year 2015-2016, Chinese has become the required IGCSE (International General Certificate of Secondary Education) examination subject for all the year 11 students (Ascot International School, 2015). Therefore, secondary students (year 7 to year 10) need to acquire more understanding about their Chinese language learning strategies, in order to prepare for their IGCSE examination in year 10.

Objectives
There are two objectives:
1 To identify the use of indirect learning strategies, metacognitive, affective and social, for learning Chinese as a foreign language of year 7 to year 10 students at Ascot International School
2 To determine if there is a relationship between the use of indirect learning strategies, metacognitive, affective and social, for learning Chinese as a foreign language and academic achievement in Chinese reading and writing of year 7 to year 10 students at Ascot International School.

Literature Review

Language Learning Strategies
Bialystok (1978) noted that learning strategies represent available information which can be applied by learners to improve their learning competence. Wenden and Rubin (1987) described learning strategies as a variety of operations, plans and methods, which are used by learners for solving problems in their learning. Oxford (1990) argued that learning strategies are specific actions used by learners to make learning easier, more enjoyable and more self-directed. In the next decades, research of learning strategies was more deeply concerned with effective learning and autonomous learning (Schunk, 2005; Simons & Beukhof, 1987; Zimmerman, 1990; Zimmerman & Schunk, 2001).

The early research provided a strong foundation for classifying learning strategies in further research. In the 1980s, LLSs were simply classified into three categories: cognitive, metacognitive and social-affective (Brown & Palinscar, 1982; O'Malley, Chamot, Kupper & Sabol, 1987). Oxford (1990) further divided LLSs into two main categories: direct learning strategies and indirect learning strategies.

Oxford developed six categories of language learning strategies in the 1990s. The six categories were 1) memory strategies, 2) cognitive strategies, 3) compensation strategies, 4) metacognitive strategies, 5) affective strategies, and 6) social strategies. The six strategies were grouped into two main categories: direct LLSs and indirect LLSs (Oxford, 1990).

As Oxford (1990) indicated, direct learning strategies are a set of mental processes for learning, such as memory, cognitive and compensation strategies, which influenced and were involved in foreign language learning directly. Indirect learning strategies include metacognitive, affective and social strategies. Although indirect learning strategies are not involved directly in language learning, they can

support direct learning strategies and manipulate language learning. The six groups of language learning strategies support and impact each other (Oxford, 1990).

Indirect learning strategies are subdivided into three subfields: metacognitive strategies, affective strategies and social strategies. All the strategies in this group are related to self-related learning, cooperative learning and autonomous learning (Kozmonová, 2008; Oxford, 2003).

Metacognitive Strategies
The main contents of this category focus on coordinating, centering or arranging learning. Metacognitive strategies include three items: centering learning; arranging and planning learning; evaluating learning (Oxford, 2003; Vlčková, Berger & Völkle, 2013).

Affective Strategies
Affective strategies are used to reduce the degree of negative emotional factors which can arise in language learning. For instance, under the item lowering learners' anxiety, there are a few strategies, such as using progressive relaxation, deep breathing, using music, or using laughter (Oxford, 2003; Vlčková et al., 2013; Kozmonová, 2008).

Social Strategies
Social strategies help to develop learners' cooperative skills and skills of social communication. Acquisition of these skills is an essential goal of language learning. Therefore, this set of strategies provides methods which language learners can apply in their daily lives (Oxford, 2003; Vlčková et al., 2013).

Conceptual Framework
The main purpose of this research was identify if there was a relationship between the use of indirect learning strategies (metacognitive, affective and social) for learning Chinese as a foreign language and students' achievements in Chinese language reading and writing among year 7 to year 10 students learning Chinese as a foreign language. Figure 1 shows the conceptual framework.

(See Figure 1 on the next page)

| Ascot International School – Grades 7-10 students Learning Chinese as a foreign language | Use of Indirect language learning strategies • Metacognitive • Affective • Social | Chinese language achievement in reading and writing |
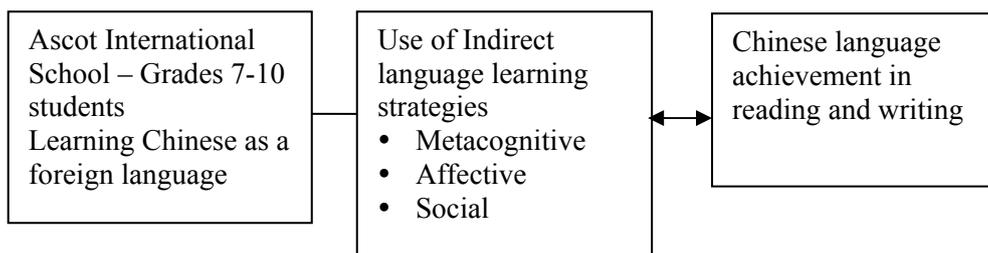
Figure 1: Conceptual Framework of The Study

Method
This research was a correlational quantitative study that utilized two research instruments – a questionnaire and a Chinese language test.

Population
The population of this study was the students from year 7 to year 10 who are learning Chinese as a foreign language at Ascot International School in Bangkok, Thailand.

Sample
The sample group of this research was 91 students who are learning Chinese as a foreign language in year 7 to year 10 at Ascot International School in Bangkok, Thailand. The study was conducted in the second term of academic year of 2015-2016.

Instrument
The instrumentation of this study included two sections:
   a) the questionnaire of Indirect Learning Strategies for Chinese Learning;
   b) the unit quizzes of IGCSE Chinese examination course.
   The Strategy Inventory for Language Learning Questionnaire (SILL) was produced by Oxford (1990) .This is a 5-point Likert scale questionnaire which aims to investigate the use of foreign language learning strategies by learners. There are 50 items in total: 29 direct strategies and 21indirect learning strategies. This study only used indirect learning strategies' part. It consisted of 21 items: metacognitive-9 items, affective- 6 items and social- 6 items.

Validity and Reliability
The SILL has been used broadly in studies of foreign language learning, especially in English as a foreign language study. According to Lai (2005), the SILL has good predictive validity and is a highly reliable instrument to use for studies of foreign language learning strategies. Oxford (1999) reported the range of Cronbach alpha coefficients of internal consistency of the SILL questionnaire as .89 to .90 in English and the other language versions, such as Korean and Japanese. In addition, the SILL questionnaire has been used worldwide. By the end of the 1990s, the SILL questionnaire was translated into at least 17 languages, used by more than 9,000 students worldwide, and provided research data for more than 40 dissertations, theses, and other studies. Therefore, the SILL has well documented reliability and validity (Oxford, 1999; Oxford, 2003).
   The alpha values of metacognitive strategies, affective strategies and social strategies performance utilized in the current study are shown in Table 1.

Table 1: Reliability Statistics of Strategy Inventory for Language Learning Questionnaire

Value component	Number of items for each component	Item numbers	Park's Alpha value of SILL (2011)	Alpha value of current study
Metacognitive strategies	9	1-9	.78	.69
Affective strategies	6	10-15	.45	.60
Social strategies	6	16-21	.70	.48
Total (Indirect learning strategies)	21	1-21	.83	.72

*Unit Quizzes of IGCSE (International General Certificate of Secondary Education) Chinese Examination Cour***se**

IGCSE is the abbreviation of International General Certificate of Secondary Education. It is an international certification for end of secondary school. IGCSE Chinese examination aims to test four language skills: listening, speaking, reading and writing (IGCSE, 2015). This study only focused on testing reading and writing skills. When comparing with listening and speaking skills, Chinese reading and writing skills are more related to the application skills of Chinese characters. Students' negative moods, such as frustrate, anxiety are more often emerged when they coming to learn Chinese characters.

In terms of different students' learning levels, 4 different unit quizzes were used to test 4 different years (year 7 to 10). All the quizzes were from *Easy Steps to Chinese Book1* and *Book 2* (Ma & Li, 2007). This series of book is recommended by IGCSE examination center to CFL students who need to prepare for the IGCSE Chinese examination. According to the Syllabus of the IGCSE Chinese examination, *Easy Steps to Chinese Book 1* and *Book 2* involve 27 topics that are required by the IGCSE Chinese examination. Additionally, these Unit quizzes are in the *Easy Steps to Chinese Teachers' Book*. Hence, students could not see these quizzes until the examination. Therefore, the validity and reliability of the unit quizzes have indicated.

Procedure

A total of 93 questionnaires were distributed on 14[th]January and 15th January 2016. There were 91 questionnaires completed and usable. This gave a 98.7 % return rate. The unit tests of Chinese reading and writing were held on 19th January and 20th January 2016. There were 93 students of year 7 to year 10 took the tests and 93 test paper returned. Therefore, the researcher took out 2 scores from year 10 students whose questionnaires were not completed. Descriptive statistics involving means and standard deviations were used to identify the use of indirect language learning strategies and levels of students' Chinese achievement of reading and writing. The Pearson Product Moment Correlation Coefficient was used to determine the relationship between the use of indirect language learning strategies and academic achievement in Chinese reading and writing.

Findings

In terms of the two research objectives, the main findings are given below.

Research Objective One

The use of overall indirect learning strategies for learning Chinese as a foreign language of year 7 to year 10 students at Ascot International School was medium.

The use of metacognitive strategies was high overall. The lowest mean score in 9 items was *I look for people I can talk to in Chinese*.

The use of affective strategies was medium overall. One item that had a very low usage was *I write down my feelings of learning Chinese in language learning diary*.

The use of social strategies was high overall. The highest usage item in this group was *if I do not understand something in Chinese learning, I ask the others to slow down or explain it again*.

Research Objective Two

The findings indicated a moderate positive significant relationship between the use of overall indirect learning strategies for learning Chinese as a foreign language and academic achievement in Chinese reading and writing of year 7 to year 10 students at Ascot International School.

Additionally, the findings indicated that a positive significant relationship was found between the use of metacognitive learning strategies and students' Chinese achievement in reading and writing. A positive significant relationship was also found between social learning strategies and students' Chinese achievement in reading and writing. However, there was no significant relationship found between the use of affective learning strategies for learning Chinese as a foreign language and academic achievement in Chinese reading and writing of year 7 to year 10 students at Ascot International School.

Table 2 shows the summary of the main findings.

Table 2: Summary of the Main Findings (n=91)

Scale	Interpretation	Correlation with Chinese Achievement in Reading and Writing
Overall Indirect Learning Strategies	Medium Usage	There was a significant relationship.
Metacognitive Strategies	High Usage	There was a significant relationship.
Affective Strategies	Medium Usage	There was no significant relationship.
Social Strategies	High Usage	There was a significant relationship.

Discussion

For the overall indirect learning strategies, the findings showed a medium usage. It meant that year 7 to year 10 students of Ascot International School sometimes used indirect LLSs for learning Chinese as a foreign language. This finding may be understood by considering that, compared to English and Thai language, Chinese is

the only language that students do not have opportunity to use in their daily lives. Therefore, it was not surprising to see that even in the high usage group-metacognitive LLSs, the item *I plan my schedule so I will have enough time to study Chinese* was reported in a medium use as well. Secondly, Chinese teachers do not offer students sufficient guidance and training in using language learning strategies. As mentioned above, some indirect learning strategies need specific training, such as affective strategies. Therefore, if teachers do not have sufficient professional training in LLSs use, they certainly cannot provide appropriate guidance to CFL students.

For the overall usage of metacognitive LLSs, the findings of this study showed that the students highly used metacognitive strategies for learning Chinese as a foreign language. The possible reason of this result is that metacognition is *thinking about thinking*; therefore, it can be seen as a foundation of whole learning process (Livingston, 1997). Oxford (1990) also indicated that metacognitive LLSs were in charge of planning, organizing, monitoring and evaluating language learners' overall learning process. Therefore, it was not surprising to see that the use of metacognitive LLSs for learning Chinese as a foreign language was at a high level.

For the overall use of affective LLSs, the findings of this study showed that year 7 to year 10 students had medium usage of affective strategies. This finding is consistent with many previous studies (Fazeli, 2012; Khamkhien, 2010; Lai, 2005). Numerous researchers have indicated that affective language learning strategies can help learners regulate their moods, motivations and learning attitudes for achieving effective learning outcomes (Cohen, 2003; Oxford, 1990). However, some researchers also have noticed that affective factors are not easily depicted within definable limits, and few students consider and measure the use of affective LLSs in their language learning (Brown, 1987; Oxford, 1990). Thus, Oxford (1990) pointed out that if there was no specific training from teachers about how to use affective LLSs efficiently, it was difficult for students to use affective LLSs. Therefore, it was not surprising to see that the item *I write down my feelings of learning Chinese in a language learning diary* had a very low usage.

For the overall usage of social LLSs, Oxford (1990) pointed out that appropriate social strategies were very important for the language learning process, since the essential purpose of language is communication. The findings of this study showed that year 7 to year 10 students highly used social strategies for learning Chinese as a foreign language at Ascot International School. Ascot International School provides an intercultural environment to all students.. Collaboration and communication are proposed clearly as school educational objectives. Therefore, it was not surprising to see that the use of social LLSs was at an overall high level.

For the relationship between indirect learning strategies and Chinese achievement in reading and writing, this study found some interesting findings. There was a medium positive significant relationship found between the use of overall indirect LLSs and students' Chinese achievement in reading and writing. Also, the mean scores of students' Chinese achievement in reading and writing were found in a medium level. These findings were consistent with the majority of previous research: high academic achievement correlates with high usage of appropriate LLSs, and medium achievements do relate to medium usage of LLSs

(Oxford, 1990; Pintrich, 1990; Schunk, 2005).Specifically, year 7 to year 10 students used overall indirect LLSs for learning Chinese reading and writing in a medium level, it would lead to the medium level of their Chinese achievements in reading and writing.

For the relationship between affective LLSs and Chinese achievement in reading and writing, it was interesting to see that there was no significant relationship between affective strategies and Chinese achievement in reading and writing of year 7 to year 10 students at Ascot International School. This finding supported some previous studies (Lai, 2005; Oxford, 1999; Peacock & Ho, 2003). Oxford (1999) proposed the possibility that anxiety or other negative emotions could lead to greater use of affective strategies and lower language proficiency. Therefore, the findings of the current study were further consistent with the unique feature of affective strategies.

Recommendations

Recommendations for Chinese Teachers
Based on the findings of medium use of overall indirect learning strategies, the researcher presents the following recommendations for Chinese teachers at Ascot International School:

- develop different activities to guide students using appropriate learning strategies;
- differentiated methods should be used to promote students' interest.

Since the use of affective LLSs had a medium usage, the researcher proposes the following:

- join in language learning strategies professional in-service training;
- guide students to use more affective LLSs to reduce their negative emotional factors.

According to the moderate positive relationship was found between the use of overall indirect LLSs and students' Chinese achievement in reading and writing, the researcher proposes the following:

- teachers should develop a series of effective strategies for Chinese language teaching;
- teachers should understand more about indirect language strategies generally.

Recommendations for CFL Students
Since this study found that overall indirect learning strategies had medium usage, the researcher presents the following recommendations to students:

- find out appropriate strategies for individual learning;
- practice using more metacognitive strategies for organizing Chinese learning;
- reduce negative mood factors by using affective strategies;
- use Chinese as much as possible to increase the use of social strategies.

By doing the above, CFL students can develop appropriate strategies that can promote their Chinese language learning.

Recommendations for Future Researchers

Given that overall indirect learning strategies had a medium usage, the researcher makes the following recommendations for future researchers:

- include all six categories of SILL in their research;
- investigate Chinese language learning achievement involving all four language skills: listening, speaking, reading and writing;
- Investigate various foreign language learners by using SILL.

Since there was no significant relationship found between the use of affective LLSs and students' Chinese achievement in reading and writing, the researcher proposes the following recommendations to further researchers:

- pay more attention on affective strategies factors;
- use the modified version of SILL from previous research in field;
- expand the range of participants' ages in order to cover more age groups and obtain more comprehensive data.

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DEVELOPING THAI EFL LEARNERS' EMAIL LITERACY IN BUSINESS COMMUNICATION COURSE AT TERTIARY LEVEL, THAILAND

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Abstract: The study followed a pre-test-instruction-post-test design to examine the effectiveness of teaching business emails to a group of 111 Thai students who enrolled a Business Communication course conducted in a business program for undergraduates, Thailand. The research aimed to find out 1) the development of students' business email writing after the explicit instructions and 2) in what aspect(s) students' business email writing will improve. A Total of 222 email scripts collected before and after the 12-week explicit instructions was analyzed quantitatively by paired *t*-tests. The findings showed that the students had significant gains in each evaluation aspect of the email writing task in the post-test after the explicit instructions. The students improved greatly in terms of the Content, Organization, as well as Framing moves, as demonstrated by the greater use of concrete subject headings, correct greeting and closing constructions, complete self-identifications on the post-test than on the pre-test. On the other hand, students made only modest progress in terms of Business Writing Style, more specifically, students were more aware of using more polite and professional business writing tones in the task. However, there was little progress in terms of students' Language Proficiency in general according to the paired score difference in both tests. These findings are discussed with implications for classroom practices and future research.

Keywords: Email literacy, Explicit Instructions, Writing Evaluation, Business Communication.

Introduction

The fact that email has great importance in modern business communication is undeniable. Every day, millions of emails are sent from companies to customers and suppliers, from employees to their managers and from one coworker to another. As DeKay (2010) argued, Email has emerged as the most commonly used form of written communication in the corporate workplace. He also made a comparison pertaining to email's rapid widespread acceptance within the past 20 years. A 1997 study revealed that a majority of American executives favored face-to-face meetings to any other form of communication; only 34% preferred email (Oh, 2007) whereas in 2005, the survey, sponsored by the Economist Intelligence Unit, pointed out that two thirds of corporate executives prefer email as a means of business communication compared to the next most popular options—desktop telephones and mobile phones. (Economist Intelligence Unit, 2005). When it came to 2008, the study performed by the Pew Internet & American Life Project revealed that 72% of all full-time employees have an email account that they use for work, and 37% of those workers "check them constantly" (Madden & Jones, 2008).

Advances information and communication technology along with the widespread of the Internet has rapidly promote email as the most frequently adopted medium for communicating purposes. The wide use of the email medium, however, does not necessarily mean that it is used without difficulty (Chen, 2006). Poor writing is costly, especially in business fields. The UpWrite Press (2012) conducted

a cost calculation showing a hypothetical company's $ 1.5 million annual loss due to poor email communication, based on the following variables and calculations:

Variables (para.4):
- *The company has 1,000 employees who send and receive email daily.*
- *They write and send an average of 10 emails per day.*
- *They send or copy each message to three different people.*
- *Five percent of email message to three different people.*
- *The employee takes 10 minutes to clarify each email.*
- *Employee salaries average $50,000 per employee per year (approximately $ 24 per hour or $0.40 per minute).*

Calculation (para. 5)
- *1000 employees send 10 emails = 1000 email messages sent each day.*
- *3 recipients are included per email message = 30,000 messages received.*
- *5% require clarification = 1,500 messages.*
- *1,500 messages take 10 minutes each to clarify =15,000 minutes of productivity wasted daily deciphering unclear messages.*
- *15,000 minutes of lost productivity result @ $0.40 per minute =$6,000.00 of lost productivity per day.*
- *$6,000.00 x 250 working days per year = $1.5 million per year in productivity lost due to poor writing skills.* (Cited in Lentz, 2013)

Given the wide spread of email communication as well as its significant role in the workplace, it is expected that students should acquire professional writing knowledge regarding email communication in order to provide more value to their potential employers and project a more professional image as qualified business graduates.

Therefore, this study aimed to incorporate email pragmatics into a business communication course and investigate the effect of explicit instruction on developing Thai students' email literacy in business settings. As indicated by Ishihara and Cohen (2010) and Rose (2005), "explicit instruction (with metapragmatic information) has been by and large demonstrated to be more beneficial than implicit teaching (without metapragmatic information), since it promotes the noticing and subsequent intake of target pragmatic features." (Cited in Chen 2015, p.134)

Two research questions, hence, were proposed:

1. Will the quality of students' business email writing improve after explicit instructions?
2. If the answer to the first research question is positive, in what aspect (s) students' business email writing will improve after explicit instructions?

Literature Review

Email is one form of business messages and has its unique format. As summarized by Chen (2015), according to Kankaanranta (2006), the email format was defined as the framing move that contributes to the physical layout of the message. It consists of *Subject*, *Opening*, and *Closing*. Crystal (2001) defined that the *Subject* writing should be clear, brief, relevant, and concrete in order to be decided whether the message will be opened or deleted by faculty members. *Opening*, is realized by greetings and self-identifications (Bou-Franch, 2006, 2011; Chejnova, 2014; Felix-Brasdefer, 2012, cited in Chen, 2015). Greetings (e.g. Dear Dr. White) are the most and salient feature in an asynchronous email communication. Closing indicates "the transition from a state of communication to one of non-communication" and it often varies from leaving taking (e.g. "See you soon"), apologies (e.g. "Sorry for the delay"), good wishes (e.g. Happy New Year") complimentary closes (e.g. "Sincerely"), appeals for actions (e.g. "Looking forward to hearing from you"), and signatures (e.g. Mary Wang) (Bou-Franch, 2006, 2011; Chen 2001; Herring, 1996; Waldvogel, 2007, cited in Chen, 2015). However, in business emails, a standard, consistent, and clean e-mail signature will present a more professional appearance for the organization. Contact information, "the most prevalent item" included in business email signatures, should include "basics on how the recipient can contact you in the future, your title/ role in the organization, and your website URL" (Jenkins, 2009:120).

Content move, in business communication, refers to various forms of business messages (emails, memos, etc.); types of business messages according to writing purposes (good, neutral news, bad news, persuasive messages, business proposals and reports); business meetings; job-related communication skills (resume, application letter, interview); as well as cross-cultural communication, business ethics. Writing strategies are also included in order to help achieve the writing goals effectively (Guffey & Du-Babcock, 2010; Locker & Kienzler, 2015; Rentz, Flatley, & Lentz, 2011).

Writing evaluation criteria in recent literature, as summarized by Huot (1990b, cited in Fraser, Harich, Norby, Brzovic, Rizkallah, & Loewy, 2005), focus on content, organization, and mechanics (p. 206). Levinson (2000) argued that "the quality of business writing can be judged with three broad categories: (1) content and purpose, (2) organization, and (3) style." (p.2) The criteria for good writing were summarized as follows:

Content and Purpose
The piece as a whole:
- includes information and ideas that are interesting, clearly presented, well developed, and convincing,
- says something worth saying,
- builds its arguments on valid and sufficient evidence,
- sticks to the point and avoids irrelevant and unnecessary material,
- accomplishes its purpose.

Organization

- Main points are clearly stated and easy to find.
- Structure is logical, consistent, appropriate, and balanced.
- Important ideas are emphasized, less important ideas re subordinated, and it is clear which is which.
- Transitions between ideas, sentences, and paragraphs are smooth.
- Paragraphs are introduced by a topic sentence, generally cover one idea, and are internally logical and coherent.

Style (Language Proficiency)
- Vocabulary is accurate, precise, and concrete.
- Sentences are the right length and varied in length and rhythm.
- Tone is suitable and consistent.
- Voice is active and lively enough to hold reader's interest.
- No extra words get in the way.
- All spelling and grammar are correct.

In addition to its format, its content, organization, language proficiency, effective email writing also needs to conform to business writing styles. Boros (1996) argued that the principle of business writing is that the business writer must "ensure that the recipient of the written communication comprehends the message that is intended by the writer. The cornerstone of this is that the writer clearly conveys the message that he/she intends." And therefore, the business writer "should not merely try to demonstrate his/her brilliant literary style—business writing is not writing for writing's sake." (p.17). He also emphasized that business writing style should be "concise (edited), focused, stream-lined, correct," "unslanted," "professional," as well as writing for "recipient's benefit." (p.17)

Campanizzi (2005) also pointed out that effective business writing should fulfill the features of 1) achieving the "you-attitude" by communicating respect for the reader and empathy for the reader's viewpoint as well as focusing on reader's interests, desires, and preferences; 2) maintaining a positive and unbiased tone through the use of positive language and being free of bias regarding culture, gender, race or ethnicity, age, and disability; 3) using active voice for emphasizing action and being shorter and more direct, rather than writing in passive voice (only accounts for 10-15 percent); 4) being clear, direct, and concise to improve the readability of your written product for your audience, the reader; 5) avoiding slang and jargon 6) maintaining goodwill to keep a business or professional relationship with the reader; 8) considering international readers with the awareness of cultural differences.

Combining the general criteria used for checking written assignments with the unique email format, together with the special concerns and writing styles in business settings, a special assessment rubric for email consisting of Content, Organization, Format, Business Writing Style as well as Language Proficiency in General has been developed to evaluate the effectiveness and quality of students' business email writing skills.

Methodology

Participants

111 Thai EFL students of English of participated in this study. All of them majored in BA and passed English IV Course before they could study Business Communication Course. All of them had never received explicit instructions or trainings regarding email communication in either personal or profession lives.

Instruments

The major instruments in this study were a pre-test and a post-test written discourse task.

Procedures

Before the instruction, the students were required to respond to a poorly written email. They had to revise it totally based upon their understanding of business emails.

The actual instructions began by adopting an Outcomes-Based Teaching and Learning Approach (OBTL) to work on students' business email writing. As Biggs & Tang (2007) argued, OBTL focuses not upon what the teacher is going to teach, but what the outcome of that teaching is intended to be or what the learner is supposed to be able to do and at what standard: the intended outcomes. Therefore, when applying OBTL, The teacher should ask questions as: what do I intend my students to be able to do after my teaching that they couldn't do before, and to what standard? How do I supply learning activities that will help them achieve those outcomes? How do I assess them to see how well thy have achieved them?

In order to ensure that students could acquire capabilities of writing professional emails, the intended outcomes were established at the very beginning of the instructions. These outcomes were categorized into five aspects: Content, Organization, Format, and Business Writing Style as well as Language Proficiency In General.

The learning instructions and activities were deliberately designed to help students achieve the learning outcomes. A series of instructions and activities were given to students focusing upon improving students' language proficiency in business settings (20%); familiarizing students with email writing format (20% classes) and other business documents (40%), selecting necessary information through purpose analysis as well as reorganizing the selected information in logical orders (20%). The students took 12 weeks to study Business Communication Course. Students met two times per week and each class session lasted two hours. By the end of the course, the post-test was administered to the students. The students were told to do the same email-revising task as they did on the pre-test.

Data Collection and Data Analysis

A total of 222 (111 students x 2times) email scripts was collected before and after the instruction. To answer the first research question, all the email scripts were rated by the teacher who taught the Business Communication Course. The detailed procedure was listed as follows:

Step 1 Coding: pretest as 1, posttest as 2.

Step 2 Mixing: both pretest and posttest scripts were mixed up to avoid bias during the grading.

Step 3 Grading: the scripts were graded according to the email writing rubrics with three ability levels (1: Unsatisfactory, 2: Satisfactory, 3: Good) designed to evaluate L2 students' email pragmatics.

The analysis was regarded as reliable and valid because all email scripts were graded by the same teacher who not only conducted all the teaching, but has sound teaching background in both English language as well as field of Business Communication.

Results

The paired *t*-test was run to analyze if there was a statistically significant difference between the students' pre-and post-test email productions in order to address the research questions.

Question 1: Will the quality of students' business email writing improve after explicit instructions?

The answer is positive, as presented by the pre-and post-test email scores in Tables 1 and 2. Table 1 summarized the paired *t*-test results. The entire measure indicated mean scores were 1.80 on the pre-test, and 2.52 on the post-test, a statistically significant change at the $p < 0.01$ level of confidence. This means that the rater's assessment of the students' overall email performance progressed from the less than *Satisfactory* level on the pre-test to the close to *Good* level on the post-test.

Table 1: Pre-and Post-Test Scores

	Mean	N	Std. Deviation	Std. Error Mean
Post Test	2.52	111	0.252	0.024
Pre Test	1.80	111	0.199	0.019

Table 2: Pre-and Post-Test Differences

	Paired Differences							
				95% Confidence Interval of the Difference				Sig.
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	(2-tailed)
Post Test – Pre Test	0.721	0.310	0.029	.663	.779	24.558	110	.000

Question 2: If the answer to the first research question is positive, in what aspect (s) students' business email writing will improve after explicit instructions?

Table 3 demonstrated that the performance of students' email writing was improved in all aspects, more specifically, Content, Organization, Format, Business Writing Style as well as Language Proficiency in General. A visual presentation of the means appears in Figure 1.

Table 3: Comparison of Students' Email Performance

Performance	Pre-test		Post-test		Pre-post-test gain	t	df	Sig
	Mean	S.D.	Mean	S.D.				
Entire Measure	1.80	0.199	2.52	0.252	0.721	24.558	110	.000
Content	1.19	0.370	2.33	0.764	1.144	14.252	110	.000
Organization	1.94	0.418	2.65	0.321	0.713	14.452	110	.000
Format	2.00	0.297	2.69	0.262	0.683	20.803	110	.000
Business Style	1.69	0.273	2.37	0.421	0.678	14.272	110	.000
Language	2.07	0.441	2.34	0.477	0.270	4.614	110	.000
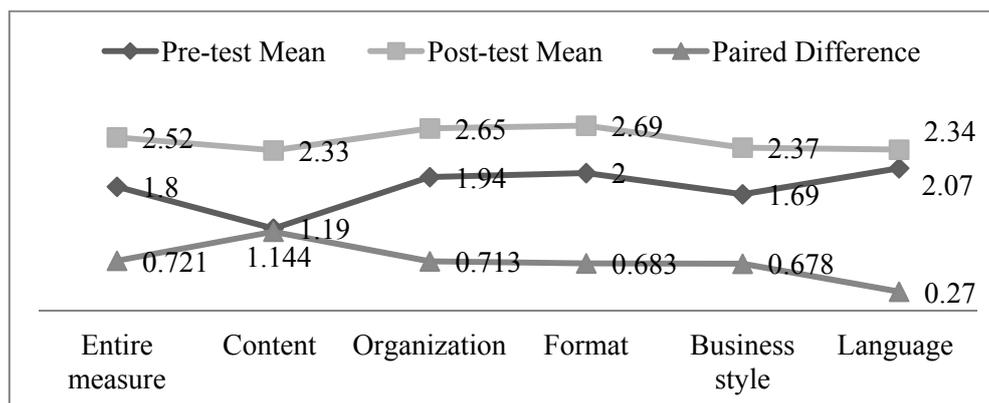
Figure 1: Pre-and Post-test Mean Scores

Table 4: Content Score Means

	Paired Differences							
				95% Confidence Interval of the Difference				
		Std.	Std. Error					Sig.
	Mean	Deviation	Mean	Lower	Upper	t	df	(2-tailed)
Post Content – Pre content	1.144	.84581	.080	.985	1.303	14.25	110	.000
Post Purpose – Pre Purpose	1.180	.95535	.090	1.000	1.359	13.01	110	.000
Post Information – Pre Information	1.108	.89799	.085	.939	1.277	13.00	110	.000

As shown in Table 4，the mean scores of Content was greatly improved from 1.19 on the pre-test to 2.33 on the post-test, supported by the paired difference of 1.144, a statistically difference at the at the $p < 0.01$ level of confidence. In this respect, students' writing pertaining to writing purpose and providing sufficient

information according to the purpose was regarded as a great success, with paired differences of 1,180 and 1.108 after receiving the explicit instructions in class.

Table 5: Organization Score Means

| | Paired Differences | | | | | | | |
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
				Lower	Upper			
Post Organization – Pre Organization	0.713	.519	.049	.614	.810	14.452	110	.000
Post Pattern – Pre Pattern	0.971	.750	.074	.823	1.118	13.059	101	.000
Post Coherence – Pre Coherence	0.748	.929	.088	.573	.922	8.480	110	.000
Post Paragraphing – Pre Paragraphing	0.432	.612	.058	.317	.547	7.440	110	.000

According to Tables 3 and 5, students' knowledge in Organization was ranked second high with the mean scores of 1.94 on the pre-test to 2.65 on the post-test, a statistically difference at the at the $p < 0.01$ level of confidence. However, the progress (0.713) through the explicit instructions was not as effective as that in Content. Especially in using paragraphs, a paired difference of 0.432 was much lower than that of how to use more appropriate writing pattern (0.971) and how to organize ideas in a coherent way (0.748).

Table 6: Format Score Means

| | Paired Differences | | | | | | | |
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
				Lower	Upper			
Post Format – Pre Format	0.683	.345	.032	.617	.747	20.803	110	.000
Post Eaddress – Pre Eaddress	0.234	.686	.065	.105	.363	3.592	110	.000
Post Subject – Pre Subject	0.703	.880	.083	.537	.868	8.413	110	.000
Post Opening – Pre Opening	0.757	.690	.065	.626	.886	11.548	110	.000
Post Closing – Pre Closing	0.910	.803	.076	.758	1.061	11.924	110	.000
Post Signature – Pre Signature	0.811	.879	.083	.645	.976	9.716	110	.000

Pertaining to Email Format, the framing moves were seen being improved moderately, with scores means of 2.00 on the pre-test and 2.69 on the post-test and a paired difference of 0.683, a statistically difference at the at the p < 0.01 level of confidence. The detailed achievements were shown in how to write appropriate closing salutation (0.919), signature (0.811), opening salutation (0.757) as well as subject heading (0.703). Only little progress was shown in writing professional email address (0.234) (as shown in Table 3 and 6).

Table 7: Format Score Means

| | Paired Differences | | | | | | | |
| | | | | 95% Confidence Interval of the Difference | | | | Sig. |
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	(2-tailed)
Post Style – Pre Style	0.678	.500	.047	.583	.772	14.272	110	.000
Post Tone – Pre Tone	1.171	.724	.068	1.034	1.307	17.030	110	.000
Post Audience – Pre Audience	0.676	.752	.071	.534	.817	9.457	110	.000
Post Conciseness – Pre Conciseness	0.414	.706	.067	.281	.547	6.178	110	.000
Post Active – Pre Active	0.450	.628	.059	.332	.568	7.549	110	.000

As demonstrated in Tables 3 and 7, the results show the score means of 1.69 on the pre-test and 2.37 on the post-test, and a paired difference of 0.678, a statistically difference at the at the p < 0.01 level of confidence. Surprisingly, students had more successful understanding about writing tones after the explicit instructions, with a dramatic paired difference of 1.171. However, there was no significant difference in terms of applying for you-centered or audience-centered approach (0.676), writing concisely (0.414), as well as using active voice and strong verbs in business messages (0.450).

Table 8: Language Score Means

| | Paired Differences | | | | | | | |
| | | | | 95% Confidence Interval of the Difference | | | | Sig. |
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	(2-tailed)
Pre Language – Post Language	0.270	.617	.058	-.386	-.154	-4.614	110	.000

From Tables 8 and 3, students' language proficiency didn't change significantly, with the score means of 2.07 on the pre-test and 2.34 on the post-test.

Discussion and Conclusion

The purpose of the present study was to investigate the efficacy of explicit instruction to develop intermediate-level Thai students' Email literacy in business setting. Two research questions were posed. The first question aimed to explore whether explicit instruction promoted the overall quality of the students' email performance. The answer to this question is positive, as supported by the quantitative findings showing that the students had significant gains in each evaluation aspect in the post-test after the instruction. The second question addressed the detailed respects in which students' performance improved as an instructional outcome.

It appears that the students improved greatly in terms of the Content, Organization, as well as framing moves, as demonstrated by the greater use of concrete subject headings, correct greeting and closing constructions, complete self-identifications on the post-test than on the pre-test. Through explicit instruction, students have become more conscious of clarifying writing goals and providing sufficient information in more coherent presentations through appropriate writing patterns, such as adopting direct or indirect writing approaches. Furthermore, during the instruction, the teacher spent much time analyzing how each of the framing moves manifests itself in the email samples. Such an analysis of knowledge helped the mental representations of the framing moves become more explicit and organized (Bialystok, 1993, cited in Chen, 2015). Compared with more informationally loaded and highly idiosyncratic content moves, according to Bou-Franch, 2006, cited in Chen, 2015), framing moves are more interpersonally oriented and highly formulaic, and therefore, more amendable to the students on the acquisition of implicatures.

On the other hand, it seems that the students made only modest progress in terms of Business Writing Style, more specifically, students were more aware of using more polite and professional business writing tones in the task. However, there was little progress in terms of students' Language Proficiency in General according to the paired score difference in both tests. This might be reasonable and understandable since the targeted students have acquired basic language knowledge through years of English study before enrolling the course.

Considering the research questions, the present study indicates that the students benefited from explicit instruction and adds further weight to previous research investing the effects of explicit instruction at a pragmatic level (Ishihara and Cohen, 2010; Rose, 2005, cited in Chen, 2015). What sets the present research apart from previous studies is that the explicit instruction takes place in a business communication course lasting 12 weeks long, instead of a short intensive intervention. This study, however, shares certain similarities compared with Yasuda's exploration (2011), in which the researcher designed syllabi that incorporated various types of email tasks in a semester-long writing course. The result of her study showed that the students were more goal-oriented, developed clearer audience awareness, and became more conscious of the language choices of each email type after the instruction.

The only difference in the present study is that knowledge in email writing is only part of the course objectives, along with other teaching contents, such as basic

business writing principles, other business writing forms (memos, proposals, reports, etc.); as well as job-related communication skills, etc. Students, therefore, were expected to apply what they had learned pertaining to business communication to one specific email-writing task. This indicates that the students have not only learned basic framing moves of business emails, but also been able to apply other content moves into email writing. In a nutshell, the overall instructional effectiveness shown in the present study can be attributed to the support offered to the students.

There are two limitations to the present study. First, the explicit instruction is not all email-related. Specific knowledge in email writing was only a small part of the entire instruction. Students are expected to have higher level of understanding by knowing how to apply all the knowledge into the email-writing task. Second, students' language proficiency was limited by the given writing task. Therefore, the research findings showed little progress in terms of business writing features (being concise and using active voice, strong verbs) and the general writing performance.

In conclusion, there are two salient facts that should be noticed through the research findings. First of all, Thai students' email literacy is much below the satisfaction level in almost every aspect, especially in Content, Organization, and its framing moves or Format. College students in Thailand, before enrolling the Business Communication course, have never had appropriate training how to write emails in a professional way. This is a frustrating fact since email communication has become unavoidable in our lives, both personal and professional. Secondly, the success in email literacy can be achieved through well-designed explicit instruction, either in intensive or loose period of time. Last but not least, it is hoped that this present study could work as a teaching and learning model that provides teaching guidelines and evaluation methods for L2 or business-related pragmatists who aim to improve students' email communication.

For whoever is interested in following up this line of research, the similar research framework with different contexts targeting different learners can be taken into consideration. The future researchers can also compare and contrast the efficacy between the implicit and explicit instruction used to improve students' email literacy.

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A COMPARATIVE STUDY OF STUDENTS' SATISFACTION TOWARDS SERVICE QUALITY ACCORDING TO THEIR DEMOGRAPHICS AT ANGKOR KHEMERA UNIVERSITY (AKU) IN KOMPONGSPEU PROVINCE IN CAMBODIA

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Abstract: This study was conducted to compare students' satisfaction towards service quality according to their demographics at Angkor Khemera University (AKU) in Kompongspeu Province in Cambodia.

The collected data were analyzed by Frequency, Percentage, Mean, Standard Deviation, Independent Samples t-test, and One-Way ANOVA. The result found that there were no significant differences of the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Kompongspeu in Cambodia. In general, the total mean score of students' satisfaction towards service quality of AKU in Cambodia was regarded high. However, the mean score of students' satisfaction towards academic aspect was regarded the highest, while the mean score of students' satisfaction towards group size aspect was regarded the lowest.

Introduction

Nowadays competition existed everywhere in the world that companies or institutions had to possess something special and unique in order to stay competitive and sustainable. Keeping customer loyal and satisfied was very important for Business Company. What was more, special attention should be paid to service quality which would help the company to result in long term competitive advantage (Moore, 1987 as cited in Kayastha 2011).

While the study of Firdaus (2005) evaluated the service quality of higher education, it operationalized service quality into non-academic aspect, academic aspect, reputation aspect, access aspect, and program issue aspect. Non-academic aspect related to the duties carried out by non-academic staff. Academic aspect included the items that described responsibilities of academic staff (instructor). Program issue aspect included the items related to program flexibility, offering wide range of programs/specialization, and quality program.

Access aspect referred to the approachability, accessibility, and ease of contact of both the academic and non-academic staffs. Reputation referred to the professional image projected by the university.

Other two service quality aspects were developed by Afzal, Akram, and Ijaz (2010). The first aspect comprised of design, delivery and assessment; and the second aspect was group size. Design, delivery and assessment aspect included course or syllabus design, class time, teaching methodology, and the procedure of evaluating and grading system of the students. Group size aspect included the class size and number of students enrolled in a class.

According to Huang (2009), satisfying need and want of customers was not new concept for business sector. On the contrary, for higher educational sector, it seemed to be underemphasized. What was more, students were considered to be customers of their university. Waugh (2002) suggested that viewing students as

customers created some tensions in universities seemed to be too aligned with business.

In Asia, few researches had been conducted on service quality delivery and student satisfaction in the university, like universities in Thailand by Kayastha (2011), Xiamen University of China by Huang (2009), and University of Technology, Selangor, Malaysia by Firdaus (2005) etc. Specifically Kayastha's (2011) study investigated the level to which the students were satisfied with the service quality perceived at the higher education institution in Thailand, from seven aspects, namely: non-academic; academic; group size; design, delivery and assessment; program issue; access; and reputation.

Cambodia which belongs to ASEAN communities, as well as Thailand, is also located in Asia. Because there were not previous studies, focused on students' satisfaction towards service quality of universities in Cambodia, had been conducted; also because this researcher had been working in higher education in Cambodia for many years, this study caught the attention of this researcher.

Objectives

There were three objectives:
1. To identify the demographics (gender, age and grade level) of the students at AKU in Cambodia.
2. To determine the students' satisfaction towards service quality of AKU in Cambodia.
3. To compare the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia.

Literature Review

Theories of Service Quality

According to Kayastha (2011), *Service quality* of higher education is the extent to which the service, the service process and the service organization can satisfy the expectations of the students, which is regarding to seven aspects, namely: non-academic; academic; group size; design, delivery and assessment; program issue; access; and reputation.

The level to which the students satisfy with the service quality perceived at the higher education institution is regarded as the main target for investigation of Kayastha's (2011) study.

According to Kayastha (2011), *Non-academic aspect* talks about the duties carried out by non-academic staff. Those duties are essential to enable students to fulfill their study obligations. The duties carried out by non-academic staff are: sincere interest of administrative in solving the problem of the students, caring attention, dealing with inquires, keeping accurate and retrievable records, promise to do something, positive work attitude, communication with students, good knowledge of the systems, students treating, and respect to terms of confidentiality when students disclose information to administrative staff.

Academic aspect talks about responsibilities of academic staff (instructor). It consists of positive attitudes, good communication skills, sufficient consultation,

regular feedback to students, and outstanding abilities of the teaching staff. Specifically those responsibilities are: knowledge to answer the question, courteous manner, interest in solving the problem, positive attitude, communication in the classroom, feedback, education in the field, handout, and documentation of the instructor and the academic staff.

Group size talks about the class size, number of students enrolled in a class. Specifically they are number of students' enrollment in one class, interaction in the class between teacher and students, and situation of students learning in class.

Design, delivery and assessment regarded as one aspect, talks about course or syllabus design, class time, teaching methodology, and the procedure of evaluating and grading system of the students. What is more, it influences the student satisfaction with the institution services since it relates to the teaching methodology, the design of syllabus, programs taught and the systems for student grading and evaluations. This further relates to program specialization and the flexibility and availability of the programs that suits the needs of students. Specifically, design, delivery and assessment are: curriculum designed by the university; teaching methodology; the proportion between theory and practice; the assessment and grading system; and the timing of the class.

Program issue talks about program flexibility, offering wide range of programs/ specialization, and quality program. Specifically program issues are: excellent quality program; a wide range of program with various specialization; excellent counseling service; and programs with flexible structure.

Access talks about the approachability, accessibility, availability, convenience and ease of contact of both the academics and non-academics staffs.. Specifically access is: responding to students' request for assistances; time allocation for consultation; and easy contact of the staff.

Lastly, *reputation* talks about the professional image projected by the university, and the employment of graduates. It is the importance of higher learning institutions in projecting a professional image.

All these seven aspects are very important for determining the students' satisfaction towards service quality of higher education.

Conceptual Framework

Based on the service quality theory and the questionnaire of students' satisfaction towards service quality of university of Kayastha (2011), this study aimed to identify the demographics (gender, age and grade level) of the students at AKU in Cambodia, then, determine and compare the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia.

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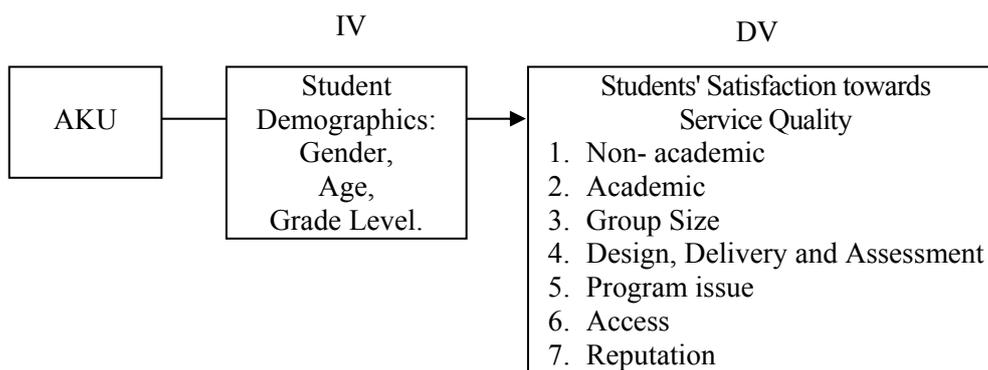
Figure 1: Conceptual Framework of The Study

Procedure

This study was a quantitative and comparative study, using a set of questionnaire which developed by Kayastha (2011). According to Kayastha (2011), this questionnaire consisted of two sections: (A) Students' Demographics including Gender, Age, and Grade Level; and (B) Students' Satisfaction towards Service Quality of Higher Education which covered the following main areas: Non-Academic; Academic; Group Size; Design, Delivery and Assessment; Program Issue; Access; and Reputation. The total 105 questionnaires were delivered to the students, but only 98 questionnaires were returned from the respondents. This meant that the returned valid rate reached 93.33%. This was done in December, 2015.

To identify Students' Demographics, the questionnaire section A which consisted of Gender: (Male, Female), Your age: (Below 20, 20-25, above 25), and Your grade (year 1, year 2, year 3, year 4) was used. The questionnaire section B which consisted of thirty-seven items was used to determine and compare the students' satisfaction towards service quality according to their demographics at Angkor Khemera University in Kompongspeu in Cambodia.

Question items number 1, 2, 8, 11, 12, 16, 25, 27, 31, 33 were used to measure students' satisfaction towards Non-academic aspect. Question items number 6, 10, 15, 17, 18, 29, 30, 36, 37 were used to measure students' satisfaction towards Academic aspect. Question items number 20, 21, 24 were used to measure students' satisfaction towards Group size. Question items number 5, 7, 19, 22, 23 were used to measure students' satisfaction towards Design, Delivery and Assessment aspect. Question items number 14, 26, 34, 35 were used to measure students' satisfaction towards Access aspect. And question items number 3, 28, 32 were used to measure students' satisfaction towards Reputation aspect.

To determine the students' satisfaction towards service quality according to their demographics at AKU in kompongspeu in Cambodia, a score of 5 or the scale of 4.51- 5.00 meant the students' satisfaction was very high (positive), while a score of 1 or the scale of 1.00 - 1.50 meant the students' satisfaction was very low (negative), to the related statements on the questions.

To analyze the data, for objective 1: Frequency and Percentage were used to identify the demographics (gender, age and grade level) of all the undergraduate students majoring in English at AKU in Cambodia. For objective 2: Mean and Standard deviation were used to determine the students' satisfaction levels towards service quality of AKU in Cambodia. And for objective 3: Independent Samples t-test (Two- tailed) was used to compare the students' satisfaction towards service quality according to their gender. And One-Way Analysis of Variance (ANOVA) was employed to compare the students' satisfaction towards service quality according to their age and grade level at AKU in Cambodia.

Findings

Finding for Research Objective One
This objective was to identify the demographics (gender, age and grade level) of the students at AKU in Cambodia. Therefore, Frequency and Percentage were used to present the students' demographics.

Table 1: Number and Percentage of Demographics of Students

Demographics	Category	Number	Percentage
Gender	Female	48	49.00
	Male	50	51.00
	Total	98	100.00
Age	Below 20	30	30.60
	20 to 25	51	52.00
	Above 25	17	17.30
	Total	98	100.00
Grade level	Year 1	41	41.80
	Year 2	28	28.60
	Year 3	13	13.30
	Year 4	16	16.30
	Total	98	100.00

(1) For gender information, Table 1 showed that the percentage of male and female respondents from AKU was slightly different. The percentage of male respondents was 51.00%. Meanwhile the percentage of female respondents was 49.00%.

However, the data in Table 1 indicated that the majority of undergraduate students majoring in English from AKU were male students.

(2) For age information, Table 1 showed that the percentage of undergraduate students majoring in English at AKU who aged below 20 years old was 30.60%. Meanwhile, the percentage of students who aged from 20 to 25 was 51.00%. The percentage of students who aged above 25 years old was 17.00%.

Table 1 also showed the majority of undergraduate students majoring in English at AKU aged from 20 to 25, whereas the minority of students age above 25.

(3) For grade level of undergraduate students majoring in English at AKU, Table 1 showed that the percentage of students who studied in year 1 was 41.80%. The percentage of students who studied in year 2 was 28.60%. The percentage of students who studied in year 3 was 13.30%. Finally the percentage of students who studied in year 4 was 16.30%.

The majority of undergraduate students majoring in English at AKU studied in year 1 (41.80%), whereas the minority of students studied in year 3 (13.30%).

However the percentage of undergraduate students majoring in English at AKU who studied in year 1 and year 3 was far different, with the ratio of 41.80% of students who studied in year 1 compared to 13.30% of those who studied in year 3.

Finding for Research Objective Two
Research objective two was to determine the students' satisfaction towards service quality of AKU in Cambodia.

To determine the students' satisfaction towards service quality of AKU in Cambodia, the researcher used questionnaire part II which consisted of 37 items related to the seven aspects of service quality of university including: non-academic; academic; group size; design, delivery and assessment; program issue; access; and reputation.

The research findings were displayed in the Table 2.

Table 2: Summary of Overall of Students' Satisfaction towards Service Quality of AKU in Cambodia (n=98)

Summary of overall of students' satisfaction towards service quality of AKU in Cambodia	Mean	S.D.	Interpretation
Non-academic	3.78	.62	High
Academic	4.04	.63	High
Group size	3.56	.86	High
Design, delivery and Assessment	3.93	.67	High
Program	3.85	.67	High
Access	3.81	.71	High
Reputation	3.79	.64	High
Total	3.82	.57	High

Table 2, in general, indicated that the total mean score of students' satisfaction towards service quality of AKU in Cambodia was 3.82, in the scale of 3.51 - 4.50, according to the interpretation of scale; it meant that students' satisfaction towards service quality of AKU in Cambodia was regarded *high*.

The highest mean score of students' satisfaction towards academic aspect was 4.04, in the scale of 3.51-4.50. According to the interpretation of scale, it meant the mean score of students' satisfaction towards academic aspect was *high*.

The mean score of other five aspects of service quality of the university; non-academic (3.78); group size (3.56); design, delivery and assessment (3.93); program

issue (3.85); access (3.81); and reputation (3.79) were in the scale of 3.51-4.50. According to the interpretation of scale, it meant the mean score of students' satisfaction on those aspects was *high,* too.

The lowest mean score of students' satisfaction towards group size was 3.56, in the scale of 3.51-4.50. According to the interpretation of scale, it meant the mean score of students' satisfaction towards group size aspect was also *high*.

Finding for Research Objective Three

The research objective three was to compare the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia.

To compare the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia, the researcher used questionnaire part II which consisted of 37 items related to the seven aspects of service quality of university including: non-academic; academic; group size; design, delivery and assessment; program issue; access; and reputation, as in the research objective Two.

There were three main demographics comparing the students' satisfaction towards service quality. Therefore, the research findings were displayed in three tables, Table 3, Table 4, and Table 5, respectively.

Table 3: Comparison The Students' Satisfaction towards Service Quality According to Gender at AKU In Cambodia

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Female	48	3.79	.67	-.53	.59
Male	50	3.85	.45		

Table 3 indicated the comparison the students' satisfaction towards service quality according to gender at AKU in Cambodia. Based on the research objectives of this study and the findings of previous researchers, this researcher set up the research hypothesis, "There was significant difference of the students' satisfaction towards service quality according their gender at AKU in Cambodia".

The analysis from Table 3 showed that the probability significance of .59 for students' satisfaction which was more than .05, so the research hypothesis was rejected, which meant "There was no significant difference of the students' satisfaction towards service quality according to their gender at AKU in Cambodia".

Table 4: Comparison The Students' Satisfaction towards Service Quality According to Age at AKU in Cambodia

Age	Sum of Squares	*df*	Mean Square	F	Sig.
Between Groups	.46	2	.23	.70	.49
Within Groups	31.06	95	.32		
Total	31.52	97			

Table 4 indicated the comparison the students' satisfaction towards service quality according to age at AKU in Cambodia. Based on the research objectives of this study and the findings of previous researchers, this researcher set up the research hypothesis, "There was significant difference of the students' satisfaction towards service quality according to their age at AKU in Cambodia".

The analysis from Table 4 showed that the probability significance of .49 for students' satisfaction which was more than .05, so the research hypothesis was rejected, which meant "There was no significant difference of the students' satisfaction towards service quality according to their age at AKU in Cambodia".

Table 5: Comparison The Students' Satisfaction towards Service Quality According to Grade Level at AKU in Cambodia

Grade level	Sum of Squares	*df*	Mean Square	F	Sig.
Between Groups	1.15	3	.38	1.19	.31
Within Groups	30.36	94	.32		
Total	31.52	97			

Table 5 indicated the comparison the students' satisfaction towards service quality according to grade level at AKU in Cambodia. Based on the research objectives of this study and the findings of previous researchers, this researcher set up the research hypothesis, "There was no significant difference of the students' satisfaction towards service quality according to their grade level at AKU in Cambodia".

The analysis from Table 5 showed that the probability significance of .31 for students' satisfaction which was more than .05, so the research hypothesis was rejected, which meant "There was no significant difference of the students' satisfaction towards service quality according to their grade level at AKU in Cambodia".

Discussion

1. About The Demographics (Gender, Age And Grade Level) Of The Students At AKU In Cambodia.

1.1 For gender, in this study, the research finding showed that the respondent students from AKU komponspeu province, Cambodia were dominantly male. However they were nearly equal number. So it could be drawn a conclusion that the English major did not affect much on the gender of the respondents. Specifically both male and female students had the same interest in studying English major at AKU.

The finding of the study done on similar topic by Kayastha (2011) showed that the respondent were dominantly male too. That was out of 303 of total respondents, 165 (54.50%) were male respondents, and 138 (45.50%) were female respondents.

1.2 For age, the majority of respondents from AKU aged from 20 to 25, whereas the minority of respondents aged above 25 years old. It meant 30 (30.60%) aged below 20 years old, 51 (51.00%) aged from 20 to 25, and 17 (17.00%) aged above 25 years old.

According to the researcher's personal communication, experience and observation, in general, it could be made a conclusion that most of students at age 20 to 25 were new grade twelve graduate students who continued their higher education at AKU. They did not have jobs to do, but their family had the affordability to pay for their university fee during the first two or three years. That was the reason that the majority of students who were studying in year one or year two at AKU aged from 20 to 25. In the opposite way, the minority aged above 25 because some of them at that age were having jobs during their study that they were having difficulty in continuing the study; and still others were quitting their study during their year two or year three. That was the reason only 17.00% of students aged above 25 studied at AKU.

The finding of the study done on similar topic by Kayastha (2011) showed that the majority of respondents aged from 26-30 years old whereas the minority of respondent aged above 35. That meant among 303 of total respondents, 123 (40.60%) aged from 26-30; whereas 14 (4.60%) aged above 35.

1.3 For grade level, the majority of respondents at AKU were students who studied in year 1; whereas the minority of respondents was students who studied in year 3. According to the researcher's personal communication, experience and observation, it can be drawn a conclusion that the number of students decreased respectively from year one to year three because the difficulty during their study gradually increased that made some of them dropped their study. Also others reasons might be that some of them quitted their study when they got married, had jobs; or the family could not continue supporting their university fee. On the contrary we could see that the number of students in year four increased to 16.30%. This might be because some student transferred their study from other universities and registered to continue their study of final year four at AKU. This might also be the hearing of the good brand name of AKU as good university. In addition, it might be because of some students, who postponed their study during year four in previous academic year, just continued their study of year four during the academic year of 2015 - 2016.

The finding of a study done on similar topic by Ngamkamollert and Ruangkanjanases (2015) showed that the majority of respondents studied in bachelor degree whereas the minority of respondents studied in certificate program. That was 212 (78.20%) were bachelor students whereas 17 (6.30%) were certificate students.

2. About The Students' Satisfaction towards Service Quality of AKU In Cambodia

2.1 Students' satisfaction towards service quality for non-academic of AKU in Cambodia

The questions of this non-academic mainly focused on how much the participants were satisfied with the non-academic such as sincere interest of administrative staff in solving the problem of the students, caring attention, dealing with inquires, keeping accurate and retrievable records, promise to do something, positive work attitude, communication with students, good knowledge of the systems, students treating, and respect to terms of confidentiality when students disclosed information to administrative staff (Kayastha, 2011).

Overall, finding from this study indicated that students' satisfaction towards service quality for non-academic of AKU in Cambodia was regarded *high*. Specifically, students were highest satisfied with administrative staff who showed positive work attitude. However students were low satisfied with the time staff promised to do something by a certain time.

According to the researcher's personal communication, experience and observation, this might be because AKU had good administrative staff could answer all the inquiries from the students and kept students' confidentiality well, but AKU should improve more on the promise by the non-academic staff with students to do something. This meant they had to follow it up and fulfill the promise.

In the previous study by Kayastha (1011), after analyzing the data, the finding indicated that non-academic aspects and program issues had the lowest mean scores.

2.2 Students' Satisfaction towards Service Quality for Academic of AKU In Cambodia

The questions of this academic mainly focused on how much the participants were satisfied with the academic such as knowledge to answer the question, courteous manner, interest in solving the problem, positive attitude, communication in the classroom, feedback, education in the field, handout, and documentation of the instructor and the academic staff.

Overall, finding from this study indicated that that students' satisfaction towards service quality for academic of AKU in Cambodia was regarded *high*.

Specifically, students were most satisfied with the instructor who provided students' feedback progress. However students were less satisfied with the documentations which were provided by the instructor.

According to the researcher's personal communication, experience and observation, this could be assumed that AKU hired some good qualified lecturers who had education from foreign countries like Australia, America, Japan, etc to teach at the university. They had most experiences in teaching and providing feedback to students both effectively and efficiently. However, AKU should pay more attention on the time lecturers had to spend their own budget to prepare documents which were costly.

In the previous studies, the finding indicated that the significant factor was academic aspects (Huang, 2010); and the most important aspect were academic facilities; recognition; and the design, delivery and assessment from the students' perspective (Afzal et al., 2009).

2.3 Students' Satisfaction towards Service Quality for Group Size Of AKU In Cambodia

The questions of this group size mainly focused on how much the participants were satisfied with the group size such as: number of student enrollment in one class, interaction in the class, and the situation of students learning in class.

Overall, finding from this study indicated that students' satisfaction towards service quality for group size of AKU in Cambodia was regarded ***high***.

Specifically student were most satisfied with small class size. However students were less satisfied with the number of student enrollment in one class.

According to the researcher's personal communication, experience and observation, therefore this could be assumed that AKU had a lot of students came to enroll every semesters, and student enjoyed their study in class by doing group discussion, board presentation, debate, asking and answering questions with lectures and peers in class. However because of the oversized amount of students, and many students were accommodated into one class, sometime students felt noisy and distracted to the learning and teaching process.

In the previous study, the finding indicated that the most significant factors are tangibility and reliability which includes the following; the classroom, the appearance, the cleanliness (Asaduzzaman et al., 2013).

2.4 Students' Satisfaction towards Service Quality for Design, Delivery and Assessment of AKU In Cambodia.
The questions mainly focused on how many the participants were satisfied with, specifically, curriculum designed by the university; teaching methodology; the proportion between theory and practice; the assessment and grading system; and the timing of the class.

Overall, finding from this study indicated that students' satisfaction towards service quality for design, delivery and assessment of AKU in Cambodia was regarded ***high***.

Specifically student are most satisfied with the teaching methodology at AKU. However students were less satisfied with the proportion between theory and practice.

Therefore this could be assumed that AKU had good perfectly designed curriculum, university bell for timing the class sessions, good assessment and grading system. However AKU should add more activities like school visit to company, internship at both public and private institutions etc. so that the student could get more knowledge and skills.

In the previous study, the finding indicated that the more the quality of curriculum increased, the more the students' satisfaction went high (Techachaicherdchoo, 2011).

2.5 Students' Satisfaction towards Service Quality for Program Issue of AKU In Cambodia
The questions mainly focused on how many the participants were satisfied with, specifically, excellent quality program; a wide range of program with various specialization; excellent counseling service; and programs with flexible structure.

Overall, finding from this study indicated that students' satisfaction towards service quality for program issue of AKU in Cambodia was regarded ***high***.

Specifically student were most satisfied with the university ran excellent quality programs, but less satisfied with the university offered programs with flexible structure. Therefore this could be assumed that AKU had good curriculum with various specialization like: business, management, education, agriculture, English etc which students could choose as their preferences. In addition, AKU had excellent counseling service; and programs with flexible structure. However, AKU might face the issues that teachers had little difficulty in preparing the schedule of teaching and learning which led to low score of students' satisfaction on flexible structure.

In the previous study, the finding indicated that program or course available is the main factor which students used in consideration for choosing the university to study (Mehdipour & Zerehkafi, 2013).

2.6 Students' satisfaction towards service quality for access of AKU in Cambodia

The questions mainly focused on how much the participants were satisfied with, specifically, responding to students' request for assistances; time allocation for consultation; and easy contact of the staff.

Overall, finding from this study indicated that students' satisfaction towards service quality for access of AKU in Cambodia was regarded *high*.

Specifically student were most satisfied with instructor who allocated sufficient time for consultation, but low satisfied with instructor who was too busy to respond to students' request for assistance.

From the researcher's personal communication, experience and observation, AKU had good staff available and accessible for consultation, assistance, and they responded in a timely manner. In addition, this could be assumed that the process and time for consultation of student with lecturers were well planed and allocated at AKU. On the contrary, it might be some minor difficulty that students faced when they arranged to meet lecturers in person because of many students which this led to low students' satisfaction in requesting for assistance at AKU.

In the previous study, the finding indicated that quality of public transport and friendly attitude toward students were the main factors which students used in consideration for choosing the university to study (Mehdipour & Zerehkafi, 2013). What was more, good destination, good program, good cost, good environment, and good language used of the university were the main factors (Li Phang, 2013).

2.7 Students' Satisfaction towards Service Quality for Reputation of AKU in Cambodia

The questions mainly focused on how many the participants were satisfied with, specifically, professional image projected by the university, and the employment of graduates

Overall, finding from this study indicated that students' satisfaction towards service quality for reputation of AKU in Cambodia was regarded *high*.

Specifically students were most satisfied with the academic program run by the university, but low satisfied with the employment of the university's undergraduates.

Therefore this could be assumed that students at AKU were recognized as having good discipline, morality, professionalism, knowledge, and skills. What was more, the academic program run by the university was long time famous and students recognized it as good standard program. AKU also had good image among the best universities in Cmbodia. However, it might be the reason that the province was small that the job opportunity for the graduate from AKU was limited which this led to low students' satisfaction in employment for students at AKU.

In the previous study, the finding indicated that the quality of program and job-placement, and the university's reputation were the most importance affecting to the students' decision in choosing the university to study (Gamage et al., 2007). In addition, the finding indicated that the effect of word of mouth could lead to the increase in students' satisfaction too.

2.8 Students' Overall Satisfaction towards Service Quality of AKU in Cambodia
The questions mainly focused on how much the participants were satisfied with non-academic; academic; group size; design, delivery and assessment; program; access; and reputation.

Overall, finding from this study indicated that students' satisfaction towards service quality of AKU in Cambodia was regarded ***high***.

In general, it meant that students' satisfaction towards service quality of AKU in Cambodia was regarded high. Specifically, students were most satisfied with academic aspect. However they scored low in the group size aspect.

Therefore this could be assumed that the main reason the academic aspect had high satisfaction because the academic program or other related services run by the university was seen as good and outstanding standard. However, it might be because the classroom size was a bit small designed, but the number of students in one class is huge that it was the reason that led to low score in students' satisfaction on group size at AKU.

3. About The Differences of The Students' Satisfaction towards Service Quality According to Their Demographics (Gender, Age And Grade Level) At Aku In Cambodia?
In this study, the researcher compared the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia.

From the result of testing the research hypothesis, it revealed that the probability of significant scores of comparing the students' satisfaction towards service quality according to their demographics (gender, age and grade level) were greater than 0.05. Therefore, the research hypothesizes were rejected, which meant there were no significant differences of the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia**.**

As this study compared the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia, this researcher assumed that there might be some factors that seemed to manipulate students' satisfaction.

One of the factors might be the gender of the students. Based on the findings, as mentioned in the discussion section about students' demographics, for research objective 1, the respondent students from AKU kompongspeu province, Cambodia were dominantly male. However they were nearly equal number. This seemed to be the nature of high school graduate student in Cambodia that both male and female high school students had the same and equal access to higher education in the country, especially in AKU in Kompongspeu Province, Cambodia.

According to the researcher's personal experience and observation, when students graduated from high schools, their parents always preferred their children both male and female to pursue their higher education, if they were able to pay the university fee, at a university which was near to home, had low tuition fee, had good image, and especially had good service quality. However, during their first 2 or 3 years at university, most of the students still did not understand well about service quality provided by the university. That was the reason that might lead to no significant differences of the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia.

Another possible factor is related to age. AKU accepted all students with all ages who wish to pursue their higher education at AKU regardless of sex or religion etc.

This might be a reason that students with different age groups gave the same level of the students' satisfaction towards service quality according to their demographics (gender, age and grade level) at AKU in Cambodia.

Still another possible factor might be the grade level. The service quality provided by the university was always good, unique and up to date that all the students with all grade level were equally satisfied with the service quality of the university since year one to year four. Furthermore, much care and attention were always paid to students from the first beginning of year 1 until the last end of year 4.

Though this study found no significant differences of the students' satisfaction towards service quality according to their demographics (gender, age and grade level), all of the respondents showed high satisfaction towards service quality at AKU in Cambodia. Therefore, this researcher considered that students majoring in English studying from year 1 to year 4 should pay more attention and be more interested in the research subject so that they would know and appreciate the value of doing research that they could use the result from the research survey for the benefit of their study and work in the future.

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A STUDY ON THE RELATIONSHIP BETWEEN TEACHERS' PERCEPTION OF PRINCIPAL'S LEADERSHIP STYLE AND TEACHERS' JOB SATISFACTION AT THE SELECTED BILINGUAL SCHOOL IN BANGKOK

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Abstract: The purpose of this study was to examine the relationship between teachers' perceptions of principal's leadership style and teachers' job satisfaction. The study also investigated the type of teachers' perceptions of principal leadership style and level of teacher's job satisfaction at the selected bilingual school in Bangkok. The purposive sampling was consisted on 68 foreign teachers working at the selected bilingual school in Bangkok. The instrument used to collect data contained three sections that were adapted from Multifactor Leadership Questionnaire [MLQ] short form and Minnesota Satisfaction Questionnaire [MSQ]. In this study, means, standard deviation and Pearson correlation were the statistical techniques applied in data analysis. Based on the results, the findings indicated that from the teachers' perception of principal's leadership style the principal uses transformational leadership style and the level of teacher's job satisfaction is neutral. According to the correlation analysis, there is a significant relationship between teachers' perception of principal's leadership style and teacher's job satisfaction at the selected bilingual school in Bangkok. A positive correlation was found between principal's leadership style and teachers' job satisfaction mean score; r = 0.686, Correlation is significant at the 0.01 level. The study recommended administrators of the selected bilingual school to use the study for further research. The study can provide the school with data for several purposes. Since no one has done any research on any one of the selected affiliated schools. It will help administrators be informed of existing problems happening and focus on their type of principal's leadership style. The study was able to help teachers to be able to express their feelings without standing out and it could help increase the level of teacher's job satisfaction. The selected bilingual school should focus on certain components of leadership style in order to raise the level of teacher's job satisfaction that could be beneficial for the school, teachers and students.

Keywords: Relationship, Teachers' Perception, Principal's Leadership Style, Teachers' Job Satisfaction, Intrinsic, Extrinsic, Bilingual School

Introduction

The success of organizations depends greatly on its human resource team. This should be supported for the best effectiveness. The leaders and followers play an important role in all organizations. Organizations need effective leadership and employees to achieve their objectives. As for leadership and employee job satisfaction, both are major factors influencing the effectiveness of an organization. (Kennerley, S.M. 1989). If something happens to one of these factors the organization can easily fall.

Leadership has been measured as one of the most important factors of an employees' job satisfaction. It widely influences employees' motivation and dedication. Poor leadership can lead to dissatisfaction of their employees causing the decrease of motivation and dedication. Many researches tried to define specific characteristics of effective schools. According to Goodlad (2004), he mentioned

that the combination satisfaction of principal, teachers, students and parents creates a major indication of a school's quality and achievement. Researchers further noted that leadership affects overall teacher satisfaction and commitment as well as the basic skills achievement of students.

Teachers have a very important role in molding and educating the knowledgeable ability of children during the child's time in school as a student. The values and the knowledge that the teachers teach and encourage the students determine the future of the child and future of our country, as they say, are the citizens of tomorrow. Teachers may not be the only one responsible but they are there to try their best to develop the children into dependable citizens, no matter which level they are in, kindergarten, primary school, high school or even universities. Teacher job satisfaction is an important part in providing high quality care to children (Harris, 2008), if teachers are satisfied they will surely perform qualified outcomes. Instead if teachers turn out to become unhappy with teaching they are more possible to leave the education field (De Nobile & McCormick, 2008). Many researches stated that quality education depends greatly on the quality of the teaching staff and students receive the best knowledge in education from teachers who are well trained and satisfied with their jobs (Harris, 2008).

Studies focusing on leadership in schools today is not like in the past. School principal leadership changed significantly over the span of the 20th Century expanding to meet the increased pressures and demands of the job. The standard change from school manager to school leader has forced next-generation school principals to create and maintain a slight balance between managing effectively, leading instructionally, and developing all school stakeholders as shared partners and leaders in the learning process (Institute for Educational Leadership, 2000). Principal leadership style is one concept of the role of the principal that should be closely surveyed in order to help all teachers learn to adjust to the increased responsibility levels with the objective of supporting high teacher job satisfaction levels.

Objectives
The research objectives were as follows:
1. To determine the teachers' perception of principal leadership style at the selected bilingual school.
2. To determine the teachers' job satisfaction at the selected bilingual school.
3. To determine the relationship between teachers' perception of principal leadership style and teachers' job satisfaction at the selected bilingual school.

Literature Review

Leadership
There has been many theories and definitions of leadership style and what makes a strong leader. Powell (as cited in Trott & Windsor, 1999) stated, "Leadership is described as the act of accomplishing more than the science of management says is possible" while Burns (2003) believed that "leadership is not only a descriptive

term but a prescriptive one, embracing a moral, even a passionate, dimension". Leadership issues have always been a widely discussed topic. It had raised interest and attracted the attention of many historians, philosophers, researchers or scholars who wish to explore the true meaning of leadership (Bass, 1990). Burns (1978) also stated that leadership is one of the most observed and least understood phenomena on earth (Awan and Mahmood, 2010).

Leaders in any organization are expected to carry out tasks with limited resources to the maximum level in order to maintain the competitive edge and to sustain profitability position of the organization (Riaz and Haider, 2010). According to Kotter (1999), leadership is about setting a direction or developing a vision of the future together with the necessary strategies for producing the changes needed to achieve this vision. Another definition of leadership by Bennis and Nanus (1985) and Hamidifar (2010) is "Leadership is an influence relationship among leaders and followers to perform in such a way to reach a defined goal or goals". Leadership therefore is an important element for the success of an organization, regardless of its nature of activities, profit or charity orientated, private or government linked organizations.

Transformational Leadership
Transformational leadership is a term coined by James McGregor Burns in 1978. Bass and Avolio took the concept of transformational leadership and did further extensive research on the concept. Bass(1997) said transformational leadership is, "the moving of followers beyond their self-interests for the good of the group, organization, or society by a transformational leader". The efforts of a transformational leader are not just focused on the task, but also engage followers by motivating them to higher levels of performance (Burns, 1978). Transformational leaders are those who stimulate and inspire followers to both achieve extraordinary outcomes and, in the process, develop their own leadership capacity. Transformational leaders help followers grow and develop into leaders by responding to individual followers' needs by empowering them and by aligning the objectives and goals of the individual followers, the leader, the group, and the larger organization. Evidence has accumulated to demonstrate that transformational leadership can move followers to exceed expected performance, as well as lead to high levels of follower satisfaction and commitment to the group and organization (Bass & Riggio 2006, p. 3).

Bass and Riggio (2006) listed and explained the components of transformational leadership: (a) individual consideration, (b) intellectual stimulation, (c) inspirational motivation, (d) idealized influence (attribute), and (e) idealized influence (behavior).

Individual Consideration
Transformational leaders pay special attention to followers' needs for achievement and growth, acting as mentors or coaches. Transformational leaders demonstrate individual consideration through effective listening and acceptance of employees' individual differences. Individualized consideration incorporates two-way communication and personal interaction with followers. Though followers are

monitored when given a task to complete, they understand the intent is for support or additional direction (Bass & Riggio, 2006).

Intellectual Stimulation

When problems need to be solved, the transformational leader encourages new ideas and creative answers from followers. Instead of following old approaches to situations, the transformational leader who is intellectually stimulating engages followers to contribute in innovative and creative ways, such as questioning assumptions and reframing problems. Mutual respect is shown even when a follower makes a mistake or differs from the leader (Bass & Riggio, 2006).

Idealized Influence (attribute and behavior)

Transformational leaders are careful to model behavior that followers should emulate. Followers feel admiration, respect, and trust for their leader. They believe their leader exhibits high levels of persistence, commitment, determination, and possesses exceptional ability as a leader. Leaders who exhibit idealized influence cultivate follower admiration because they are consistent in ethical and moral behavior. The leader is not afraid to take risks and encourages followers to take risks as well. Followers feel their leader is worth following and there is a mutual sense of loyalty to one another (Bass & Riggio, 2006).

The transformational leadership model began to appear in educational literature in the 1980s because of the need for school systems to improve academic achievement, and the acknowledgement that leadership had influence on school effectiveness (Stewart, 2006).

In terms of educational leadership, Mulford (2008) suggested that transformational leadership is a more powerful way of thinking about educational leadership than other approaches such as instructional leadership, "because it leads to an investigation of all workplace conditions that contribute to all school outcomes, not just instructional strategies." The confluence of the transformational leadership style on teacher job satisfaction and efficacy shows potential for providing a more satisfied and committed staff of teachers within the school.

Transactional Leadership

The successful leadership and management of any school must take into account the leadership style of the principal. A prominent style of leadership is transactional leadership. James McGregor Burns is credited for his seminal work on transactional leadership by publishing an extensive work on political leaders in 1978 entitled *Leadership* (Hay, 2006). Burns explained that transactional leaders focus on the leader-follower relationship through the exchange of rewards and punishments with followers for services rendered or not completed (Hay, 2006; Staker, n.d).

Research shows that reward and punishment are effective motivators in the lives of individuals. Maslow's Hierarchy of Needs provides further research-based evidence to these concepts (Russell, 2008). Many organizations believe that reward and punishment are effective sources of motivation for followers to experience. When the follower does what is desired or goes over and above what is required, compensation is provided. If the follower fails to complete the required goal or

work, punishment or withholding of the reward occurs (Hay, 2006). Bass (1997) expressed that transactional leadership is a matter of contingent reinforcement of followers by the leader. The workers acknowledge the leader's authority based on the promise of remuneration for a job well done.

The transactional leadership style is often termed a more traditional form of leadership that follows a structure of leader-follower relationship based on the fulfillment of contractual obligations (Brymer & Gray, 2006; Kurland et al., 2010). The two components of transactional leadership include: (a) Contingent reward, and (b) Management by exception (active).

Contingent Reward
Contingent reward leadership is an exchange between the follower and the leader, which is both active and positive. The reward is given to a follower based on a previously agreed upon task, and when completed satisfactorily, ends. As long as both leader and follower are happy with the agreed upon arrangement, the relationship will continue and satisfactory completion of tasks will be rewarded (Byer & Gray, 2006).

Management by Exception (active)
When a leader is managing by exception in the active form, the followers are given clear standards, expectations, and measures for monitoring and assessment at the start of the task or work. The leader actively provides the follower with instruction, oversight, and supervision in order to provide corrective action quickly in an attempt to arrest any deviation from performance expectations and standards (Byer & Gray, 2006).

Job Satisfaction
Tillman and Tillman (2008) identified job satisfaction as the like or dislike of the job in response to pay, promotion, recognition or other factors deemed important by the worker. Spector (1994) defined job satisfaction as how people feel about their job and the different facets of their job. Though these definitions vary in some aspects of the content, most would agree that job satisfaction is an emotional response to one's job, either in part or as a whole.

Herzberg, Mausner, and Snyderman, (1959) provided valuable information concerning the factors influencing job satisfaction from their seminal study of 203 accountants and engineers in Pittsburgh. Herzberg et al., (1959) proposed two domains of motivations. Herzberg (1974) explained in the two-factor theory or hygiene-motivation theory that there are certain variables within a person's job that motivate him/her toward job satisfaction, while there are another totally different set of variables within the job experience that motivates the worker toward job dissatisfaction.

Five intrinsic factors strongly influencing job satisfaction are labeled motivators, and 11 extrinsic factors contributing to job dissatisfaction are labeled hygiene factors (Williams & Lankford, 2003). According to Herzberg's hygiene-motivation theory, factors leading to job dissatisfaction are based on the hygiene extrinsic factors such as supervision, interpersonal relationships, salary, job

security, and working conditions. Factors leading to teacher job satisfaction are the motivator intrinsic factors such as achievement, responsibility, growth, advancement, and recognition (Herzberg, 1974, 1987; Jones, 1997).

In explaining the factors influencing job satisfaction, Herzberg et al., (1959) posited that there must be both positive motivators and positive hygiene factors present in order to obtain the level of job satisfaction and performance desired. In light of Herzberg's theory, it is imperative that the leadership of the school takes into account both intrinsic and extrinsic factors in order to cultivate job satisfaction, which in turn may possibly lead to higher levels of teacher success in the classroom.

Principal Leadership and Teacher Job Satisfaction

According to Nguni et al. (2006), empirical studies in most work environments including education have shown that leadership greatly influences the job satisfaction of employees. Current studies have shown that a principal's leadership style can have an effect on the satisfaction of school teachers (Grayson & Alverez, 2008; Hulpia et al., 2009). When included in the decision-making process, having more independence in their classes, and having supportive effective principal leadership, teachers tend to be more satisfied (Hulpia et al., 2009; Tillman & Tillman, 2008). These findings provide support for the possibility that principals may have a direct or indirect effect on the satisfaction of their teachers (Hulpia et al., 2009; Shatzer, 2009; Tillman & Tillman, 2008). Barnet, Marsh and Craven (2003) noted higher levels of teacher job satisfaction when the principal was perceived as caring for them as individuals and was present when an important issue was presented.

Conceptual Framework

For the purpose of the research study, leadership styles were conceptualized as possibly being related to job satisfaction. These concepts were studied to determine the teachers' perception of principal's leadership style at the selected school, determine the teachers' job satisfaction at the selected school and determine the relationship between teachers' perception of principal leadership and teachers' job satisfaction at the selected school. The conceptual framework for the study is shown in Figure 1.

(See Figure 1 on the next page)
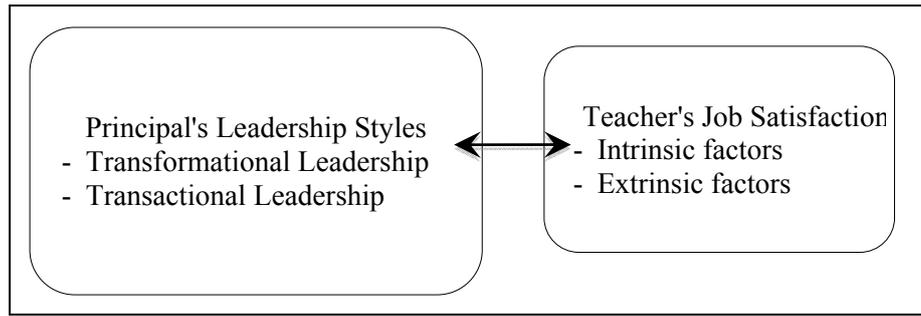
Figure 1: Conceptual Framework of The Study

Method/Procedure

Population and Sample
The population of the selected bilingual school consists of 70 foreign teachers. Purposive sampling has been applied; in this regard all foreign teachers were selected as a target (70) to answer the questionnaire.

Research Instrument
A questionnaire was conducted to use as research for the study. The questionnaire includes a total of 42 questions divided in three sections: the first section contains 6 items on the demographic information of the teachers of the selected Bilingual School. The second section contains 18 items on leadership style and the third section contains 18 items on teacher job satisfaction. The leadership style questions in section two were adapted from Avolio and Bass' (1997) Multifactor Leadership Questionnaire (MLQ). The MLQ consists of 45 Likert-type items that contain eight leadership components including five transformational leadership style dimensions and three transactional leadership style dimensions. In addition to the leadership styles, it also contains three outcome scales that included extra effort, effectiveness, and satisfaction of leadership behavior. Items are on a 4-point Likert scale ranging from *0* (not at all) to *4* (frequently, if not always). Each of the leadership style components consists of four items, and scores for each of the eight scales are considered to be the average scores for the items in each scale. Transformational leadership style scores were computed by averaging all of the scores from the items contained in the following scales: idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration. Transactional leadership style scores were computed by averaging all scores from items contained in the following scales: contingent reward, management-by-exception.
    The MLQ survey uses a 5-point Likert scale:
            (0) Not at all
            (1) Once in a while
            (2) Sometimes
            (3) Fairly often

(4) Frequently, if not always.

According to score interpretation, the score for each factor is determined by summing three specified items on the questionnaire and calculated using the score range:

High   = 12 - 9
Moderate = 8 - 5
Low   = 4 - 0

The job satisfaction questions in section three were adapted from Minnesota Satisfaction Questionnaire (MSQ). The short-form version of the MSQ utilized in this study consists of 18 Likert-type items that measured the feelings of the employee with respect to different aspects of job satisfaction. Factor analysis of the 18 items revealed that the MSQ consists of three scales: intrinsic satisfaction, extrinsic satisfaction, and general satisfaction (Weiss et al., 1967). Each item contained within the MSQ is presented on a five-point scale ranging from *very dissatisfied* to *very satisfied* and scored based on weighted response choices ranging from 1 (very *dissatisfied)* to 5 (very *satisfied)*. Responses were scored 1 through 5, and scale scores were determined by summing the weights for the responses chosen for the items in the intrinsic, extrinsic, and general satisfaction scales. MSQ scores are interpreted based on percentile scores for each scale obtained from the most appropriate norm group for the individual in the normative data tables provided within the manual for the MSQ. A percentile score of 75 or higher would typically represent a high level of job satisfaction while a percentile score of 25 would indicate a lower degree of satisfaction (Weiss et al., 1967).

The MSQ survey uses a 5-point Likert scale:

(1) Very Dissatisfied
(2) Dissatisfied
(3) Neither Satisfied nor Dissatisfied
(4) Satisfied
(5) Very Satisfied

As for demographic sections the items were based on the demographic data age, gender and length of work in current position. The reliability of the survey data was calculated by Cronbach's Alpha and the value of Cronbach's Alpha of the survey was .979 at 18 items.

The data collection was done at the second week of June, 2013. Of a total of 70 questionnaires distributed, 68 useable questionnaires were returned, representing an overall return rate of 97.14%. The collected data were encoded and statistically analyzed by using the Statistical Package for the Social Science (SPSS) software. For the first and second research objective, mean and standard deviation was used as the descriptive statistics method. Last for research objective three, Pearson Products Moment Correlation Analysis was used to determine the relationship.

Findings/Results

Demographic Information
Of 68 respondents, most of them were female at 73.5% or 50 people; and another 26.5% or 18 people were male. Their ages were ranging from 21 years old to more

than 40 years old. There were 24 people or 35.3% that were between the ages of 31 – 40 years old; another 24 people or 35.3% were more than 40 years old; and 18 people or 26.5% were between 21 – 30 years old. There were 2 people or 2.9% denying disclosing their ages. Based on the respondents' teaching level, most of them at 38 people or 55.9% were mainly teaching in primary level (Grade 1-6); 26 people or 38.2% were mainly teaching at kindergarten level; 2 people or 2.9% were mainly teaching at nursery level; and the remaining 2 people or 2.9% were mainly teaching in special areas. All respondents at 68 people or 100% were having the education level of Bachelor's degree. Their teaching experience was ranging from 1 to more than 10 years. Of which, most of them at 34 people or 50% were having the teaching experience of 1 - 5 years; 26 people or 38.2% were having the teaching experience of more than 10 years; and the rest 8 people or 11.8% were having teaching experience of 6 - 10 years, respectively. Focusing on their length of teaching for the selected school, the majority of them at 44 people or 64.7% had been teaching for 1 to 5 years; and another 24 people or 35.3% had been teaching for 6 to 10 years.

Leadership

According to the table 1, it answered the research objective one which identifies the principal's leadership style at the selected bilingual school. Transformational Leadership, there are four dimensions, including idealized influence, inspirational motivation, intellectual simulation, and individualized consideration. The overall idealized influence was considered as moderate from the mean of 1.35 and the standard deviation of 0.99. The overall inspirational motivation was considered as moderate from the mean of 1.71 and the standard deviation of 0.98. The overall intellectual stimulation was considered as moderate from the mean of 1.50 and the standard deviation of 0.95. The overall individualized consideration was considered as moderate from the mean of 1.78 and the standard deviation of 0.98. Transactional Leadership, there are two dimensions of transactional leadership, including contingent reward and management by exception. The overall contingent reward was considered as moderate from the mean of 1.44 and the std. deviation of 0.92. The overall management-by-exception was considered as moderate from the mean of 1.62 and the std. deviation of 0.888.

Table 1: Descriptive Results of Transformation and Transactional Leadership

	Mean	S.D.	Level
Idealized Influence	1.35	0.99	Moderate
Inspirational Motivation	1.71	0.98	Moderate
Intellectual Stimulation	1.50	0.95	Moderate
Individualized Consideration	1.78	0.98	Moderate
Transformational Leadership	1.58	0.90	Sometimes
Contingent Reward	1.44	0.92	Moderate
Management-by-exception	1.62	0.89	Moderate
Transactional Leadership	1.53	0.84	Sometimes

The total mean of transformational leaders received a higher mean score 1.58 compared to the mean score of transactional leadership 1.53. Based on the research findings stated that transformational leadership can be used for explaining the principal's leadership style at the selected bilingual school but still the mean was not far from transactional leadership showing that the principal of the selected school was actually not heavier in performing only on leadership style at all.

Job Satisfaction
According to Job Satisfaction, there are two dimensions of job satisfaction, including intrinsic satisfaction, and extrinsic satisfaction. From table 2, intrinsic satisfaction had the mean score 3.47 and standard deviation of 0.67 with the level of satisfied and extrinsic satisfaction had the mean score 2.53 and std. deviation of 0.99 with the level of neutral. According to research question 2 the level of satisfaction of the teachers of the selected bilingual school was at the level of neutral with the mean of 3.19 and standard deviation of 0.75.

Table 2: Descriptive Results of Intrinsic and Extrinsic Satisfaction

	Mean	S.D.	Level
Intrinsic Satisfaction	3.47	0.67	Sat
Extrinsic Satisfaction	2.53	0.99	Neutral
All Satisfaction	3.19	0.75	Neutral

Relationship Between Principal's Leadership Style and Teacher's Job Satisfaction
The researcher sought to determine the degree to which the two variables (principal leadership style and teacher job satisfaction) consistently varied in the same direction (positive) or in an opposite directions (negative), a Pearson Product Moment Correlation analysis was utilized. The Pearson Correlation analysis also sought to determine the degree to which principal leadership style and teacher job satisfaction are related, as represented by the strength of the correlation coefficient (r). The results of analysis are shown in table 3.

Table 3: Pearson Correlation: Principal Leadership Styles and Teacher Job Satisfaction

	Mean	S.D.	Pearson Correlation	Sig.
All Leadership Styles	1.56	0.86	.686**	0.000
All Satisfaction	3.19	0.75		

The table states that principal leadership styles, meaning transformational and transactional leadership style has the mean of 1.56 and standard deviation of 0.86 and teacher's job satisfaction, meaning intrinsic and extrinsic factors has the mean of 3.19 and std. deviation of 0.75. The results, represented in Table 3, showed a significant positive relationship between principals' leadership style and teacher's job satisfaction mean scores (r = 0.686, p < 0.001) Correlation is significant at the 0.01 level.

Discussion

The findings found out that the principal's leadership style at the selected school actually was not higher on one certain leadership style but the findings showed that the teachers' perception of principal leadership style was more transformational than transactional. The level of teachers' job satisfaction was also neutral showing that the teachers were neither satisfied nor dissatisfied with their job. The finding also proved that there is a relationship between principal's leadership style and teacher's job satisfaction that significantly affected that the employee's job satisfaction in the case of foreign teachers in the selected bilingual school.

Over all, the finding proved that there is a positive relationship between principal leadership style and teacher job satisfaction, which showed that the suggestion of Bass & Riggio (2006) which indicated that transformational leaders are those who stimulate and inspire followers to both achieve extraordinary outcomes and, in the process, develop their own leadership capacity. They help followers grow and develop into leaders by responding to individual followers' needs by empowering them and by aligning the objectives and goals of the individual followers, the leader, the group, and the larger organization. As a result, transformational leadership can move followers to exceed expected performance, as well as lead to high levels of follower satisfaction and commitment to the group and organization. Specifically, Bogler (2001) and Nguni et al. (2006) noted a positive correlation between transformational and transactional leadership styles and teacher job satisfaction. The results of the Korkmaz (2007) study, on the other hand, revealed that transformational leadership played a more important role than transactional leadership in positively affecting teacher job satisfaction. Therefore, it can be concluded that the leadership style of the school principal does indeed seem to affect teacher job satisfaction.

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A STUDY OF KINDERGARTEN 2 STUDENTS' ENGLISH PHONICS ACHIEVEMENT AND THEIR PERCEPTIONS TOWARDS THE USE OF ENGLISH PHONICS ONLINE GAMES AT ST. MARK'S INTERNATIONAL SCHOOL, THAILAND

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Abstract: This study aimed to compare the Kindergarten 2 students' achievement in English Phonics before and after the use of English Phonics online games and to find out their perceptions towards such games. Eleven Kindergarten 2 students of St. Mark's International School in the academic year 2015-2016 participated in the two-month study. This research used a mixed method design. A one-group pretest-posttest experiment was conducted to determine if there was a significant difference in the students' English Phonics achievement before and after using English Phonics online games. In addition, an interview on how the students' perceived the use of English Phonics online games was done. Analyses showed that Kindergarten 2 students' English Phonics achievement was very good before the use of online games, and it increased to excellent after the use of online games. Paired Samples t-test revealed that there was a significant difference between the pre- and post-tests scores of Kindergarten 2 students before and after using English Phonics online games at the level of 0.05. The interview results revealed that: 1) all Kindergarten 2 students had positive perceptions towards the use of online games in English Phonics; 2) the students had positive perceptions towards the use of English phonics online games because the games helped them learn how to spell and read and featured animations, colorful and attractive common objects, and interactive/hands-on and game/challenge components. Based on the findings, the use of online games in English Phonics is recommended in teaching and learning English Phonics, especially for young learners. Further relevant studies are also recommended.

Keywords: English Phonics Achievement, Kindergarten 2 Students' Perceptions, English Phonics Online Games.

Introduction

The use of computer technology in educational settings has become very common. Its popularity is even supported by research. There are three reasons why the use of computer technology is supported by some researchers. The first reason is the change in learner's profile. New generations are more familiar and dependent on Information and Communication Technology (ICT). Another is the distribution of technology in every part of society like having such technology in schools. The third reason is that effective technology use can provide for effective learning (Tokmak & Ozgelen, 2013).

One of the most common technologies used in education at present time is the Internet, which offers countless possibilities for learning. One of these Internet learning tools is educational games, specifically online games. These educational online games are beneficial because they help learners focus on learning, are engaging and fun, and provide sufficient feedback to learners (Philips, 2010). Moreover, Johnson, Christie, and Yawkey (1999) and Lisi and Wolford (2002) mentioned that they can stimulate visual scanning, auditory discrimination and spatial skills (as cited in Chuang & Chen, 2009). Playing these games, students develop soft skills like self-control, persistence, self-confidence and ability to work

in a group (Banchero, 2013).

People have been influenced by technology for years. Computers, the Internet and smart phone applications are just some of the latest technological innovations and developments brought about by global competitions. With the growing popularity of online games and claims of their educational benefits, many educators believe that such technology should be incorporated in teaching-learning contexts. One such technology is online games in phonics.

With the interest of implementing technology-based teaching approach, specifically with the use of online games, to promote effective learning and to increase learner's motivation, the researcher wanted to investigate whether the use of online games in teaching phonics could improve students learning in English Phonics and produce positive views about such games. If it could, then this teaching approach (use of online games) can support the contention or the idea that it should be systematically incorporated in English Phonics of Kindergarten 2 students. Furthermore, the researcher believed that the study could be useful in her school, St. Mark's International School, where a major part of the Early Years curriculum focuses on the teaching of phonics: a tool in developing students' ability to recognize letter sounds and read (St. Mark's International School, 2016).

Objectives

This research aimed to:

1. identify the English Phonics achievement of Kindergarten 2 students before and after using English Phonics online games,
2. determine if there is a significant difference between the English Phonics achievement of Kindergarten 2 students before and after using English Phonics online games, and
3. identify the Kindergarten 2 students' perceptions towards the use of English Phonics online games.

Literature Review

Teaching and Learning English Phonics

Thorndike defined learning as habit formation. For him, learning was a matter of relating new learning to previous learning. He believed the following: 1) behavior was influenced by conditions of learning; 2) learners' attitudes and abilities could improve overtime through proper stimulus; 3) instructional experiences could be designed and controlled; and 4) it was important to select stimuli and learning experiences that were integrated, consistent and mutually reinforcing (Ornstein & Hunkins, 2009).

An experimental study conducted by the National Reading Panel provided strong evidence that systematic phonics instruction makes a bigger contribution to children's growth in reading than alternative programs providing unsystematic or no phonics instruction (Popp, 2006).

Online Games

An online game is played in a form of computer network, normally called the Internet (Philips, 2010). Oftentimes, it refers to the Internet video games that were played by numerous players around the world (Schurman, 2014).
The first online gaming activities started in 1969. They became popular in the late 1970's and the online game players began playing during the time when the Dial-up Bulletin Boards became famous in the early 1980's.

Due to the state of the art Internet technologies in 1990, new websites started to emerge contributing great opportunities in interactive computing to the public. The advertisement for online gaming was widespread all over the world with tons of new players every year (Bizymoms,1997).

Wang, Kinzie, McGuire and Pan (2009) noted that there are several interactive and educational applications that are implemented in the early childhood education subjects like mathematics, science, reading, language and social studies. Some of this software is designed for entertainment or for practice and drill purposes. However, there are suggested software games that are more educational.

Learning Theories That Support the Use of Online Games
According to Nikolopoulou (2007), behaviorism, constructivism and socio-cultural theories of learning are the three main theories that were adopted in developing the early childhood educational software. On the other hand, Gillani (2003) stated that Skinner's behavioral theory, Piaget's cognitive development theory, and Vygotsky's social development theory can be instrumental in the development of e-learning environments that are based on how students learn. In addition, Bandura's self-efficacy theory was also mentioned in this study.

In the behavioral theory, Skinner emphasized positive and negative reinforcements. According to this theory, there is an increased frequency of response when positive reinforcement is given because of the rewarding stimulus and there is an increased probability a response will occur followed by the removal or withdrawal of unpleasant stimulus in the negative reinforcement (Ornstein & Hunkins, 2009).

Piaget theorized the four stages of cognitive development: the sensorimotor stage, preoperational stage, concrete operational stage and the formal operational stage. In this study, the focus is more on the preoperational stage (ages 3-7) where the language development is one of the major cognitive developments (Gillani, 2003; Ornstein & Hunkins, 2009).

Vygotsky introduced the zone of proximal development. The zone of proximal development is defined as the distance between the actual development levels of an individual to his or her potential development level (Gillani, 2003). Vygotsky believed that the child will be capable of achieving a task if given the proper support and assistance when the child is in the zone of proximal development.

Bandura defined self-efficacy as one's belief in his/her capabilities to achieve a certain task (as cited in Cherry, 2016). Bandura also mentioned that there are four main sources that develop people's self- efficacy. The first is through mastery experience where individuals' own self-efficacy increases when they master a task. The second is from social modeling or vicarious experience. When people see their role models who have the same capabilities as they do became successful, they

increase their self-belief that they too have the capabilities to be successful in some areas. The third source is the social persuasion that individuals receive from people around them, giving additional effort and persistence required for those individuals to try harder to become successful. The fourth is from the emotional and physiological state in which the condition will determine how people handle situations. Positive emotions can increase one's confidence, whereas stress reaction and tension will result in poor performance (as cited in Cherry, 2016).

Benefits Brought About by Online Games
Playing online games is believed to provide advantages. E-learning (2012) mentioned that due to educational games some learning objectives are achieved: practice or rote memorization, practice particular skills, word practice in a foreign language, enable problem solving and memorize formula. It was also stated that some of the characteristics of educational games help learners focus on learning, are engaging and fun and provide sufficient feedback to learners. Moreover, Philips (2010) mentioned in his article that these types of games can give people relaxation from stressful life. According to Wang et al., (2009), teaching computer, which goes with playing online games, to early childhood education can support children's cognitive and metacognitive processes. It was found out in previous research that software that gives children great domination will motivate the children to explore more and build interest in finishing more tasks (Couse & Chen, 2010). Lin, Tsai and Chien (2011) suggested that entertaining games such as educational computer games are motivating. However, there is a need for proper guidance and planning on a selected task and an appropriate educator's guidance and monitoring.

Disadvantages of Playing Online Games
Although playing online games can be beneficial, some experts caution that it can also have negative impacts. Byron (2008) mentioned in her review that online gaming has the potential to contain inappropriate materials and bad language, and can lead to incidents like cyber bullying and addictive behaviors. It was also noted that there is a chance for learners to become passive rather than active learners when they play online games (Ornstein & Hunkins, 2009). Furthermore, teachers' lack of knowledge on how to evaluate students' learning with technology and using computers as an incentive for good behavior are just some of the barriers to teacher assessment of student learning (Ntuli & Kyei-Blankson, 2012).

Previous Studies

English Phonics Online Games
In the Creative Research Pilot study, Benson, Bredosky, Hester and Singleton, (2004) in Memphis, Tennessee, attempted to identify the strengths and weaknesses of the Help Me 2 Learn Phonics Game in an elementary classroom. It also helped students identify vowel sounds as well as sight words. Moreover, learning vowels and letters on the computer allowed students to focus for longer periods of time. In addition, computer skills of the students were also developed by using the mouse to manipulate through the software. It had a positive impact on students' self-esteem

where students were able to work at their own pace as well. The study also showed a significant difference between pre-test and post-test scores, which indicated that the computer-based Help Me 2 Learn Phonics Games was very beneficial in increasing academic achievement.

Perception and Online Games
Based on the study of Sahrir and Alias (2011), there was a positive perception among Arabic Language learners towards using an online educational game in enhancing learning and improving their attitude, motivation and achievement in Arabic language learning and a high level of needs and expectations towards the use of online games as a multimedia application in the classroom. As mentioned by Liu, Lee and Chen (2011) in their study, males had shown a highly positive attitude towards using computer games, while there was less positive or neutral attitude in the affective components, perceived control, perceived usefulness and behavioral components among female colleagues.

Relationship between Online Games and English Phonics Learning
Metis Associates (2014) and Starfall education worked together to investigate the implementation and overall impact of the Kindergarten curriculum. In their study, a comparative analysis shows that Starfall students outperformed non-Starfall students in reading proficiency. Ibrahim, Yusoff, Omar, and Jaafar (2011) pointed out in their pilot study that students using games had an optimistic attitude and were more encouraged to learn. Students were able to develop their thinking skills and test their knowledge about the subject in programming compared to conventional methods.

Conceptual Framework
The researcher wanted to investigate the difference between the English Phonics achievement of Kindergarten 2 students before and after using English Phonics online games and their perceptions towards these games. The figure below illustrates the conceptual framework of the study which indicates the assumptions that such games can have some influence on learning English Phonics, and that the students' perceptions of these online games can be related to their use and the students' English Phonics achievement.
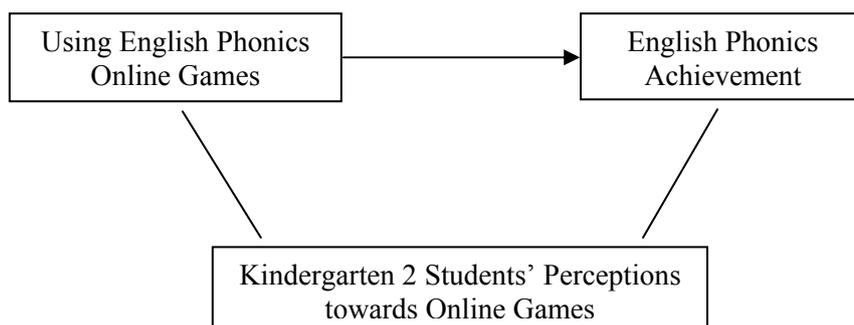

Figure 1: Conceptual Framework of The Study

Method

This research used a mixed method design, specifically the concurrent embedded strategy, as it employs two methods (Creswell, 2009). In this design, quantitative and qualitative data were collected simultaneously. An experiment, specifically a one-group pretest-posttest design, was the main method used to address the first two research objectives. The secondary method was an interview which concerns with the third research objective.

Population

This study represents the population of the Kindergarten 2 students of St. Mark's International School. Most of the students were female and have Thai nationality.

Sample

This study involved eleven Kindergarten 2 students at St. Mark's International School in the academic school year 2015-2016. The students were four to five years old and of different nationalities.

Instruments

There were two research instruments used in this study: the English Phonics tests and the interview form. The content of the English Phonics tests for pre-test and post-test was taken from Chall-Popp Phonics A student book. Each English Phonics test consists of 20 items. The result of the Kindergarten 2 students' English Phonics achievement was interpreted based on St. Mark's International School's criteria for grading. Scores below 10 out of 20, or below 50%, mean "Needs improvement"; 10-11 out of 20, or 50%- 59%, are categorized as "Pass"; 12-13out of 20, or 60%-69%, are considered "Satisfactory"; 14-15 out of 20, or 70%- 79%, mean "Good"; 16-17 out of 20, or 80%- 89%, are categorized as "Very Good"; and 19-20 out of 20, or 90%- 100%, are considered "Excellent".

The questions in the interview form was adapted from Benson et al. (2004) and was modified by the researcher. There were 5 items in the original interview form. As the researcher wanted to identify the students' perceptions towards the use of English Phonics online games, the researcher modified the original interview in order to fit this purpose and came up with the 8-item semi-structured interview form. The interview on the use of online games in English Phonics was conducted with each of the students after each set of 3-letter activities for their favorite activities and the rest of the questions in the interview were asked after the two-month treatment. A video recorder was used to record all the information given by the students. Each interview took about 8-10 minutes.

To identify the English Phonics achievement of Kindergarten 2 students, means and standard deviation of the pre- and post-tests were obtained. To determine if there was a significant difference between the English Phonics achievement of Kindergarten 2 students before and after using English Phonics online games, a paired samples t-test (two-tailed) was performed. To identify the Kindergarten 2students' perceptions towards the use of online games in English Phonics, quantitative and qualitative analyses were done. In the quantitative analysis of perceptions, frequency and percentage were obtained to measure the "yes or no"

answers to each of the structured questions, while the qualitative analysis was done to get a thematic description of the responses to open-ended questions following Creswell's (2009) suggestions.

Validity and Reliability
The English Phonics tests (pre and post-tests) for the Kindergarten 2 students were taken from the Kindergarten 2 English Phonics student book (Chall-Popp Phonics A). This book, as well as the English Phonics test, has been approved and provided by the school administration and has been used in this level for more than 10 years (from 2004 to the present) by the researcher. The book follows St. Mark's International School's curriculum in English. This book has been created based on the previous research on phonics learning among children (Popp, 2001).

The interview form was subjected to face and content validity. Its face and content validity was evaluated and approved by educators who have years of experience in research, psychology and English language education.

Experimental Procedure
Permission from the school principal and the school manager of St. Mark's International School was requested prior to the conduct of this study which followed an Eight-Week Course and Assessment Schedule covering the lessons in Unit 3 for 8weeks (2 months). The schedule coverage of the lessons was based on the school's weekly course outline provided by the school administration. Upon getting the approval from the school principal and the school manager, the English Phonics pre-test was administered by the researcher to the Kindergarten 2 students at the beginning of the second semester of the academic year 2015-2016 (on January 11, 2016) before the introduction of English Phonics online games.

After the pre-test, the treatment was administered using the English Phonics online games from a specified website: *www.starfall.com,* together with the traditionally prescribed Chall-Popp Phonics Level A book in the English Phonics class. This book consists of 5 units, with a two-page Progress Check after each unit. The two-page Progress Check in Unit 3 was used to determine the English Phonics Achievement (pre and post-tests) of the students in this study.

On March 7, 2016, two months after the treatment, the English Phonics post-test was administered. A one-on-one interview with each of the students from March 8-9, 2016 was also conducted. A video recorder was used to record all the information given by the students.

Findings
The findings of this study are detailed below.

Part 1: English Phonics Achievement of Kindergarten 2 Students

Table 1: Mean and Standard Deviation of English Phonics Achievement of 11 Kindergarten 2 Students before and after Using English Phonics Online Games

	M	S.D.

	M	S.D.
• Pre-test scores on English Phonics achievement of Kindergarten 2 students before using English Phonics online games	16.18	1.25
• Post-test scores on English Phonics achievement of 11 Kindergarten 2 students after using English Phonics online games	18.91	0.94

Table 1 shows that the English Phonics achievement of the Kindergarten 2 students in the pre-test was 16.18 out of 20 and 18.91 out of 20 in post-test . This means that, on average, the students English Phonics achievement before using the English Phonics online games was very good and was excellent after using the online games.

Part 2: Difference between the English Phonics Achievement of Kindergarten 2 Students before and After Using English Phonics Online Games

Table 2: Paired Samples t-test (Two-Tailed) on the English Phonics Achievement of 11 Kindergarten 2 Students Before and After Using English Phonics Online Games

	M	S.D.	t	Sig. (2-tailed)
• pre-test score before online games	16.18	1.25	-6.71	0.000
• post-test score after online games	18.91	0.94		

The paired samples t-test revealed that the mean post-test score is higher than the mean pre-test score, and that this difference is statistically significant at a level below 0.05 (p = 0.000). This means that the English Phonics achievement of the Kindergarten 2 students after using English Phonics online games was significantly higher than before using them.

Part 3: Kindergarten 2 Students' Perceptions towards the Use of Online Games in English Phonics

Part 3.1: Descriptive Statistical Results for the "Yes or No" Responses of Kindergarten 2 Students Regarding Their Perceptions towards the Use of Online Games in English Phonics.
Table 3 shows the results regarding the students' responses to the "yes and no" interview questions.

Table 3: Frequency and Percentage of 11 Kindergarten 2 Students' Responses to Yes or No Questions

Questions	Response	Frequency	Percentage
Did you enjoy playing Starfall online games in English Phonics?	Yes	11	100%
	No	0	0%
	Total	11	100%
Do you feel you know all the vowel and consonant sounds?	Yes	10	90.90%
	No	1	9.10%
	Total	11	100%
Would you want to play the Starfall	Yes	9	81.80%

online games in English Phonics at home?	No	2	18.20%
	Total	11	100%
	Yes	9	81.80%
Do you use other online games at home?	No	2	18.20%
	Total	11	100%
Would you like to continue developing your reading skills with Starfall?	Yes	10	90.90%
	No	1	9.10%
	Total	11	100%

All five findings regarding the "yes" and "no" responses of the 11 Kindergarten 2 students reveal higher than 81.80% in favor of "yes", indicating that in general, all students have positive perceptions towards the use of online games in English Phonics because they enjoyed the games.

Part 3.2 Responses to Open-ended Questions on Kindergarten 2 Students' Perceptions towards the Use of Online Games in English Phonics
Table 4 presents the Kindergarten 2 students' responses to the open-ended question.

Table 4: 11 Kindergarten 2 Students' Responses to Question 2, "Why Did You Enjoy or Not Enjoy Playing Starfall Online Games in English Phonics?"

Responses	Frequency
The Kindergarten 2 students enjoyed playing Starfall Online games in English Phonics because:	
- it made them happy.	4
- it was fun.	5
- it was funny.	1
They enjoyed playing Starfall Online games in English Phonics because it made them:	
- learn how to spell	8
- know the letters	4
- learn how to read	1
They also enjoyed playing Starfall Online games in English Phonics because of the following features of the game.	
1. Animation	
- dancing fish	2
- puppy	3
- funny motorcycle	1
- pig dancing ballet	1
2. Colorful Objects	
- apple and balloon	1
- rainbow	2
- great color	1
3. Interactive/Hands-on and game/challenge components	
- pressing	1
- matching activity	3

These findings signify that the students had positive perceptions towards the use of Starfall online games in English Phonics because they believed that the games helped them learn how to spell and read, and because they found the animations, colorful common objects and the interactive/hands-on and game/challenge components of the activities enjoyable and interesting.

Table 5: Frequency and Percentage of 11 Kindergarten 2 Students' Responses to Their Favorite Activity on the Phonics Game on Letters s, m and t

Letters	Frequency	Percentage
s	3	27.27%
m	5	45.45%
t	3	27.27%
Total	11	100.00%

Table 5 shows the frequency distribution of Kindergarten 2 students' responses regarding their favorite activity on the phonics game on letters *s, m,* and *t*. The results reveal that out of 11 students, three (27.27%) liked letter "*s*", five (45.45%) answered "*m*" and also three chose letter "*t*". This implies that most of the students had fun playing the activities in letter "*m*".

Table 6: Frequency and Percentage of 11 Kindergarten 2 Students' Responses to Their Favorite Activity on the Phonics Game on Letters b, f, and r

Letters	Frequency	Percentage
b	2	18.18%
f	5	45.45%
r	4	36.36%
Total	11	100.00%

Table 6 shows the frequency and percentage of Kindergarten 2 students' responses as to their favorite activity on the phonics game on letters *b, f,* and *r*. Out of 11 students, two (18.18%) answered letter "b", five (45.45%) answered "f" and four (36.36%)answered letter "r". This implies that many of the students had fun playing the activities in letter "*f*".

Table 7: Frequency and Percentage of 11 Kindergarten 2 Students' Responses to Their Favorite Activity on the Phonics Game on Letters n, p, Song-Short a Sound , Make a Word with an and Make a Word with at.

Letters	Frequency	Percentage
n	0	0.00%
p	7	63.64%
Song-Short a sound	4	36.36%
Make a word with *an*	0	0.00%
Make a word with *at*	0	0.00%
Total	11	100.00%

Table 7 illustrates the frequency distribution of Kindergarten 2 students' responses regarding their favorite activity on the phonics game on letters *n, p,* Song-Short a sound, Make a word with *an* and Make a word with *at* . Out of 11 students, nobody answered letter "n", Make a word with *an* and Make a word with *at*; seven (63.64%) answered "p"; and four (36.36%) answered letter "Song-Short **a** sound". Based on the results in table 17, students preferred the activities in letter "p" than the activities on letters ***n,*** Song-Short **a** sound and make a word with ***an*** and make a word with ***at.***

Additional Finding: Frequency and Percentage of 11 Kindergarten 2 Students' Usage of Online Games at Home

Table 8: Frequency and Percentage of Responses of 11 Kindergarten 2 Students to the Usage of Online Games at Home

	Frequency	Percentage
Once a week	2	18.18%
Two to three times a week	4	36.36%
Every day	3	27.27%
Does not play	2	18.18%
Total	11	100.00%

Table 8 shows the frequency and percentage of 11 Kindergarten 2 students' responses to question 7 *"How often do you use online games at home?"*. Out of 11 students, two (18.18%) answered "once a week"; four (36.36%) answered "two to three times a week", three (27.27%) replied "everyday" and two (18.18%) answered "do not play". This finding indicates that students varied in terms of playing online games at home, from not at all to every day. However, when asked whether they played Starfall online games or other English phonics games, they said "no". They said they played other games such as car racing, princess games, house hold chores games and dress up games.

Discussion

The Use of Online Games in English Phonics and English Phonics Achievement
The results of this study indicate that the English Phonics achievement score of Kindergarten 2 students in the post-test was significantly higher than in the pre-test. This means that the Kindergarten 2 students improved their English phonics achievement after using the online games in English phonics.

This finding can be corroborated by another finding of this study in which students who played online games at home once a week, two to three times a week, and every day, and those who never at played all had almost similar English phonics achievement scores. This can be because the online games they played at home were not the Starfall games nor related to English phonics.

This finding indicates the positive influence of the use of online games in the students' English Phonics achievement. The positive influence of online games in

learning can be explained by the concept of discovery learning where the role of computer, together with Internet technology, is to provide the technological environments for constructive learning (Gillani, 2003).

Vygotsky's concept of zone of proximal development (ZPD) explains the relationship between learning and development and giving children with suitable assistance when they are in their ZPD will enhance them to achieve learning tasks (Gillani, 2003; McLeod, 2010). The English phonics achievement tasks in this study were in the students' zone of proximal development.

The behavioral theory of learning can also help explain the improvement in the students English Phonics achievement. The online games provide drills that students could repeat in order to master the tasks and concepts. The games also offered positive reinforcements in the form of rewards, i.e. stars and positive feedback like "you did it!' that motivated the students to continue the tasks.

The students' significant learning in this study can also be related to their positive perceptions towards the use of the online games. Interview results noted that students believed playing the games helped them learn spelling and reading. This belief appears to be supported by their improved post-test scores. Bandura's concept of self-efficacy (as cited in Cherry, 2016) can also explain such improvement. It is possible that the students developed their self-confidence as they used the online games. Taking on the challenges posed by the games led to their mastery of the learning tasks and concepts which resulted in their positive attitude. Moreover, they were motivated to exert effort and perseverance in the achievement tasks since they enjoyed the activities in the online games and they believed the games helped them learn. Such positive perception of themselves and of the use of online games probably helped them achieved significant learning in the targeted English phonics concepts.

This finding is also similar to the previous research findings of Benson et al. (2004) regarding the increased academic achievement of the students in the elementary classroom and the improvement of the students' phonics skills, especially in recognition of consonants and long and short vowel sounds, after using online games. The finding in this study about the positive influence of online games in learning supports the contention of Ibrahim et al. (2011) that the use of educational games as a language approach improved student's learning of various learning domains: cognitive, affective and psychomotor. In addition, it is also similar to the findings of Metis Associates (2014) that claimed that Starfall students outperformed non-Starfall students in reading proficiency. In that study, they mentioned that a great number of Kindergarten students achieved reading proficiency after the school adopted the Starfall curriculum.

This research finding is also supportive of the previous study of Tuzun, Soylu, Karakus, Inal, and Kizilkaya, (2008) which found that students made significant learning by participating in a computer game-based learning environment. In another study, Ibrahim et al. (2011) pointed out that students using online games had an optimistic attitude and were more encouraged to learn. In that study, students were able to better develop their thinking skills and test their knowledge about the subject in Programming compared to conventional methods. Finally, this finding corresponds to Sahrir and Alias's (2011) findings that the use of educational online

games encourages students to learn and leads to enhanced academic achievement.

Students' Perceptions towards the Use of English Phonics Online Games
This study also reveals that the Kindergarten 2 students' had positive perceptions towards the use of online games in English Phonics. The positive perceptions can be due to the students' belief that playing the games helped them learn how to spell and read and the enjoyment they experienced while playing those games.

Students could have noticed that they were learning letter sounds and symbols and how they were applied in reading and writing words, and that they could actually spell and read words using the English Phonics concepts they had learned. Based on self-efficacy theory of Bandura, this mastery of English phonics concepts could have developed the students' self-confidence (as cited in Cherry, 2016). Such confidence could have led them to continue with the learning tasks resulting in more achievement.

Moreover, the students' positive perception of the use of English Phonics online games could have been brought about by their enjoyable experience in playing such games. As stated in the literature review, some of the characteristics of educational games help learners focus on learning, engaging and fun and provide sufficient feedback to learners (Philips, 2010).

This finding about the students' positive views about online games support the study of Lin et al. (2011) in which students had shown highly positive attitudes towards using computer games in learning, demonstrated confidence, and enjoyed these kinds of activities both inside and outside the classroom settings. It also corroborates the findings of Sahrir and Alias (2011) that the use of educational online games relate to students' positive attitudes towards the use of such games, enhancing their learning motivation.

It should be noted, however, that this study was conducted with only 11 students with no control group. Moreover, the students' backgrounds, i.e. family, nationality, social status, were not taken into consideration. Thus, the implications of the study findings should be interpreted cautiously, considering the mentioned limitations.

Recommendations
Based on the findings, this study recommends the following.

For Teachers. Teachers, especially English Phonics teachers and English teachers of young learners, can integrate or use Starfall and other English phonics online games in classroom activities. They should also try other suitable educational online games as a teaching-learning tool. Moreover, they should be adventurous enough to discover new teaching and learning approaches that will best fit their students' needs, promote effective learning and increase motivation in learning. Finally, they should apply a variety of activities that can maximize student learning, as well as make use of the available technology common in the 21st century.

For School Administrators and Curriculum Developers. Administrators and Curriculum Developers may experiment on the use of online games, not only Starfall but also other educational online games, as integrated teaching-learning tools.

For Research. First, Researchers should further investigate the role of English phonics and other educational online games in students' learning in a larger context, i.e. bigger sample sizes, various student levels and backgrounds, desirably with control and experimental groups, in normal class settings. Second, they should study further the implementation of the use of online games to determine their impact on kindergarten curriculum. Third, they should conduct relevant studies at the beginning of the school year and for a longer period of time, preferably in a whole semester or school year, in order to get a clearer picture about the influence of online games in children's education.

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