THE RELATIONSHIP BETWEEN STUDENTS' PERCEPTION TOWARDS THEIR OWN CHARACTER STRENGTHS AND THEIR ACADEMIC ACHIEVEMENT AT SCIENCE-BASED TECHNOLOGY VOCATIONAL COLLEGE-CHONBURI, THAILAND

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Abstract: The main purpose of this study was to identify the relationship between students' perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College – Chonburi. The study was based on the PERMA Theory (positive emotions, engagement, relationships, meaning and achievement) and the 21st century skills, and instrument is in line with the survey of character strengths as that used by VIA Survey of Character Strengths which is psychometrically validated personality test that measures an individual's character strengths. Descriptive statistics and Pearson's product-moment correlation coefficient test were used to examine the objectives of the study. It was found that students have unequal amounts of moderate and high perceptions of their strengths. The strength of teamwork scored the highest while leadership had the lowest. Out of the ten character strengths surveyed, two character strengths scored moderate (1) perseverance and (2) leadership while eight strengths were interpreted as high namely zest, self-regulation, social-intelligence, teamwork, gratitude, creativity, curiosity, and open-mindeness. Students' academic achievement in terms of their GPA was found very high. As to the correlation between students' perception towards character strengths and their academic achievement, it was found that there was no significant relationship. Based on the findings, future research should include more questions which surveyed the strengths to reveal additional data and more comparisons.

Keywords: Students' Perception, Character Strengths, Students' Achievement, Vocational College

Introduction
Character strengths or non-cognitive skills are as important as intelligence skills for success. As described by Seligman and Peterson (2004) it refers to

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"positive traits reflected in thoughts, feelings, and behaviors". Recent research found that it is one of the predictors of success in aspects of life from savings, and physical health (Moffitt, Arseneault, Belsky, Dickson, Hancox, Harrington, Caspi, 2011) or even in academic achievement (Duckworth and Gross, 2014). Both Freud (1920) and James (1890) hypothesized that in everyday success, attention and emotion regulation and regulating behavior are important.

Self-control for example, can predict important outcomes in life (Duckworth & Seligman, 2005; Moffitt, Arseneault, Belsky, Dickson, Hancox, Harrington, Caspi, 2011). Another important character strength which contributes to the success of the student was grit. It was defined as the combination of perseverance and passion over a long-term goal (Duckworth, Peterson, Matthews, & Kelly, 2007). They claimed that before someone can achieve he or she should entail effort and not give up in the face of adversity. That someone should achieve goal as a marathon not a sprint. Grit is related to lifetime educational attainment (Duckworth & Quinn, 2009), and even professional success (Baum & Locke, 2004; Locke & Latham, 2013; Vallerand, Houlfort, & Forest, 2014; Wrzesniewski, 2012). Grittier students are more likely to graduate on time 1 year later (Eskreis-Winkler, Duckworth, Shulman, & Beale, 2014).

However, character strength's importance has not been given much emphasis as most school policies focus on the intelligence domain of the learner specifically even though character strengths can potentially help students in their academic struggles, they need to assessed and guided accordingly. Though there are other aspects which contribute to success like achieving world-class skill must need to engage in a deliberate practice (Ericsson & Charness, 1994). We hope that this study would help strike a balance between academic achievement and character strengths in order to foster students' ability to succeed in academics and in life as well. More importantly, we hope that teachers and students will be equipped with the knowledge and assessment on character strengths to help facilitate students' academic achievement.

Research Objectives:
There are three objectives:
1. To determine the students' perception towards character strengths at Science-Based Technology Vocational College, Chonburi.
2. To determine the students' academic achievement at Science-Based Technology Vocational College, Chonburi.

3. To identify the relationship between students' perception towards character strengths and their academic achievement at Science-Based Technology Vocational College (Chonburi).

Literature Review
Perman Theory
Character strength is "a disposition to act, desire, and feel that involves the exercise of judgment and leads to a recognizable human excellence or instance of human flourishing" (Yearley, 1990, p, 13). Character strengths are the backbone of the Well-Being Theory or PERMA (positive emotions, engagement, relationships, meaning and achievement) which was developed by Seligman (2011) and has identified 5 core elements. These five elements; positive emotions, engagement, relationships, meaning and achievement are believed to help people reach a life of well-being.

Positive Emotion
Experiencing positive emotions is a universal goal of human (Diener, 2000). Emotions like happiness, hope and joy are some of the positive emotions (Cohn and Fredrickson 2009; Fredrickson 2001; Seligman 2011). Research has found that positive emotions are a key indicator of well-being (Coffey, Warren, & Gottfried, 2014); Cohn and Fredrickson 2009; Lyubomirsky, King, & Diener, 2005).

Engagement
The engagement element is when someone highly engage himself or herself in a difficult task with attention, skills and strengths allowing him or her an experience of flow (Csikszentmihalyi, 1988). Flow is a form of engagement that requires high level of skills for a challenging activity with goal and immediate feedback in achieving the goal (Csikszentmihalyi, 1990). According to Carli, Delle Fave, & Massimini, 1988) engagement improves academic achievement and commitment among high school students and academic performance among college students (Engeser, Rheinberg, Vollmeyer, & Bischoff, 2005).

Relationships
Another essential element to well-being is relationship. Mutual relationship with satisfaction is an indicator of well-being (Ryan and Deci, 2000; Seligman, 2011).

Feeling valued by others and having close, mutually satisfying relationships is another key indicator of well-being. A study conducted by Diener and Seligman (2002) among college students revealed that students who often

socialize are happier that to those who don't. Furthermore, a study across 55 nations a predictor of happiness is good relationship (Diener & Oishi 2000).

Meaning

Having a sense of meaning and purpose by serving others more than the self (Seligman 2011; Steger, Oishi, & Kashdan, 2009). People pursue meaning because they get satisfaction (Chalofsky and Krishna, 2009; Seligman 2011), increase happiness and less psychological problems (Debats, Van der Lubbe, & Wezeman, 1993).

Achievement

The last indicator of well-being theory is achievement which is a persistent drive to mastery (Seligman, 2011). Though pursuance to achievement doesn't not necessarily lead to well-being. (e.g., Grant and Dweck 2003)

Seligman (2011) believed that the more positive emotion, more engagement, better relationships, more meanings and more achievements gives a life of satisfaction. To increase PERMA means building well-being.

Conceptual Framework

Seligman (2011) PERMA Theory (Positive Emotion, Engagement, Relationships, Meaning and Achievement) was used in the conception of framework in which character strengths are the foundation of the theory. Character strengths were the independent variables which were categorized into positive emotion, engagement, relationship, meaning and achievement. Each component contained specific strengths, for positive emotion, it included perseverance and zest; engagement had self-regulation; the strengths of social intelligence, teamwork and leadership for the relationship component; meaning component had gratitude; and for achievement component it included the strengths of creativity, curiosity, and open-mindedness. For the independent variable, it was the students' academic achievement.
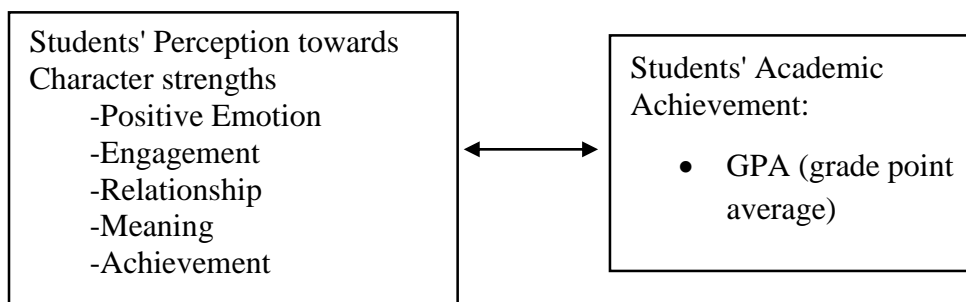

Figure 1: *Conceptual Framework of the Study*

Method / Procedure
This study employed descriptive and correlational methods. The researcher collected the data of the perception of the students towards their own character strengths through questionnaire and their academic achievements through their official college registrar. The correlation between students' perception towards character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi was examined using the Pearson Correlation analysis. The study was conducted at Science-Based Technology Vocational College Chonburi during the academic year 2018. The respondents of the study were 90 students. The respondents were all the students from the second year to third year certificate levels as the Science-Based Technology Vocational College, which offered only 3-year program.

After the request of permission was granted in the early February 2018 and the questionnaire was validated, the researchers administered the survey questionnaire at the end of February 2018 during the regular class session of the college. The returned valid questionnaires were from 90 respondents out 90 students, so the returned rate of this study was 100%.

To gather empirical data, this research adopted the original VIA Survey of Character Strength designed for youth aged 15 to 17 years old. The original questions were arranged in nonsystematic order and about one-third of which are reverse-scored. The items were clustered in 24 subscales, measuring the 24 character strengths in the VIA classification. The scale consisted of 5-point Likert-style items (5- very much like me and 1- not like me at all). The responses for each subscale are averaged to obtain a mean score, with higher numbers reflecting more of the strength (Peterson & Seligman 2004). Scores for some items are calculated by reverse scoring. In this study, the researcher assessed ten character strengths only with 40 questions out of 96 questions from the original. To facilitate the understandings for the Thai students in this study, the researcher decided to conduct in Thai language. The original English version of the questionnaire was translated into Thai language by three experts to ensure that the translation of the questionnaire was correct and precise.

Findings / Results
Research Objective One
The research objective one was to identify the students' perception towards their own character strengths at Science-Based Technology Vocational College Chonburi, the researcher used the VIA Survey of Character Strengths which is psychometrically validated personality test that measures an individual's character strengths. The data were treated with descriptive

statistics to calculate the mean and standard deviations of each question. The overall mean score of the students' perception towards character strengths among the students at Science-Based Technology Vocational College, Chonburi was 3.67. It was in the range of 3.51-4.50. According to the interpretation scale, the students' perception towards character strengths was "high". Out of the ten character strengths surveyed, perseverance (3.41) and leadership (3.08) scored moderate. While teamwork is interpreted with the highest mean score of 3.99, seven other character strengths interpreted high with scores ranging from 3.61 – 3.91. It was considered that students' perception towards their character strengths was high. Details are shown in Table 1.

Table 1. *Summary of Students' Perception towards Character Strengths*

Character Strengths	Mean	S.D.	Interpretation
Leadership	3.08	.86	Moderate
Perseverance	3.41	.65	Moderate
Curiosity	3.61	.77	High
Zest	3.66	.63	High
Gratitude	3.70	.54	High
Social Intelligence	3.73	.63	High
Creativity	3.78	.68	High
Self-Regulation	3.79	.69	High
Open-Mindedness	3.91	1.51	High
Teamwork	3.99	.60	High
Total	3.67	.45	High

(N=90).

Research Objective Two
Research objective two was to determine the students' academic achievement at Science-Based Technology Vocational College, Chonburi. The researcher used the students' grade point average (GPA) scores for their academic achievement in this study. The GPA scores were obtained from the official college registrar. Based on the interpretation criteria of the GPA achievement at the college, it indicated that the overall students' academic achievement

which was referred to their grade point average (GPA) was interpreted as *very high*. Findings are shown in Table 2.

Table 2*. Students' Academic Achievement at Science-Based Technology Vocational College, Chonburi (N=90).*

Students' Achievement (GPA)	Mean	S.D.	Interpretation
	3.30	.33	Very High

Research Objective Three
Research objective three was to identify the relationship between students' perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi. For the analysis of the third research objective, it was hypothesized that there was a significant relationship between students' perception towards character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi. After the correlation test of the research objective was completed and found that there was no significant relationship between students' perception towards their own character strengths and their academic achievement since the *p* value was .24 which was higher than .05. Although the overall result of the relationship between students' perception towards character strengths and their academic achievement was not significant, the researcher investigated each subscale further and its relationship to students' academic achievement and found two other character strengths like leadership and perseverance have shown significant relationship. Findings are shown in Table 3.

Table 3. *Summary of the Relationship between Students' Perception towards Their Own Character Strengths and Their Academic Achievement (N=90).*

	Character Strengths	Pearson Correlation Coefficient	Sig. (2-tailed)	Result
1	Perseverance	.283**	.007	Significant
2	Leadership	.247**	.019	Significant
3	Zest	-.027	.804	Not Significant
4	Self-Regulation	.058	.592	Not Significant
5	Social Intelligence	-.105	.330	Not Significant
6	Teamwork	-.069	.520	Not Significant
7	Gratitude	.022	.835	Not Significant
8	Creativity	-.037	.732	Not Significant

	Character Strengths	Pearson Correlation Coefficient	Sig. (2-tailed)	Result
9	Curiosity	.073	.502	Not Significant
10	Open-Mindedness	.129	.228	Not Significant
	Total	.129	.235	Not Significant

Discussion

The findings of the study confirmed that the students at Science-Based Technology Vocational College, Chonburi had a *high* perception towards their own character strengths particularly on the strengths of zest, self-regulation, social intelligence, teamwork, gratitude, creativity, curiosity and open-mindedness. This demonstrated just how important character strengths are. Though the results confirmed of its high perception, other constructs have scored *moderate* in terms of perception like the strengths of leadership and perseverance. It is fundamental to note that these two strengths could be improved and scored high because character strengths are dynamic and not fixed (Peterson and Seligman, 2004). This related that the ability to perceive our strengths is largely based on our improvement and maturity.

Character strengths are positive traits that reflect human virtue and excellence that can be developed over time through experience, deliberate practice and other designed interventions (Peterson & Seligman, 2004). Good character and all other sets of positive traits should be possessed in our leaders, teachers, students, parents and friends (Peterson & Park, 2006).

Despite the fact that there was some unanticipated result like the strength of leadership which scored moderate, the researcher is convinced that including other questions in character strengths survey could have revealed more data and have a better perception among the college students. The overall high perception of students towards their own character strengths indicated that characters are just as important as their academic achievement in order to achieve their academic goals. These results thus need to be treated with attention thorough care and attention to maintain the students' consistency in achieving their academic achievements.

The study utilized the students' grade point average or GPA obtained from the college registrar to measure the students' academic achievement. On average, the results revealed that the 90 students got a mean score of *3.30* for their GPA which was interpreted as *very high*. The results showed that the student

academic achievement was highly demonstrated by their high perception towards their character strengths.

This study was the first attempt to validate the correlation between the students' perception towards their own character strengths and academic achievement. Taken as a whole, the findings confirm that there is no significant relationship between the students' perception and academic achievement. With a few exceptions, the results showed that some other strengths have a significant relationship between the students' perception and their GPA. The most striking result to emerge from the data is that leadership and perseverance have a significant relationship to their academic achievements.

Interestingly, other strengths like zest, self-regulation, social intelligence, teamwork, gratitude, creativity, curiosity and open-mindedness did not reveal positive relationship as these characters are highly cultivated among the students. This insignificant correlation was supported in the result of the perception of the students among these highly perceived strengths. Also, the findings point to the usefulness of character strengths as a factor in their academic achievement.

The results were consistent with the previous study of Park and Peterson (2008a) that perseverance was the most identified character strength related to life success in work and school. This substantiated previous finding in the literature that perseverance, love, gratitude, and hope predicted academic achievement in middle school students and college students (Park & Peterson, 2009a).

In another study by Lounsbury, Fisher, Levy & Welsh (2009), they reported that the character strengths that predicted GPA in college students were perseverance, love of learning, humor, fairness, and kindness. In a research conducted by Duckworth and Seligman (2005) it revealed that there is a significant relationship between academic achievement and personality characteristics. Though the strength of leadership found to be significant in their academic achievement, no substantial body of research literature supports. However, this study demonstrated that the strength of leadership has a correlation to the students' academic achievement. According to Learnovation (2009) 21st century skills including leadership are very important so that students succeed in a highly competitive workplace.

As the study offered valuable result on other domains, schools must cultivate other strengths and develop positive institutions because it enables the

development of positive relationships and individual traits including characters, which in turn enable positive subjective experiences. People are at their best when all four domains are aligned (Park, & Peterson, 2008a).

REFERENCES

Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, *89*, 587–598.

Carli, M., Delle Fave, A., & Massimini, F. (1988). The quality of experience in the flow channels: Comparison of Italian and U.S. students. In M. Csikszentmihalyi & I. Csikszentmihalyi (Eds.), Optimal experience: Psychological studies of flow in consciousness (pp. 288–318). NY: Cambridge University Press. doi:10.1177/000841749806500105.

Chalofsky, N., & Krishna, V. (2009). Meaningfulness, commitment, and engagement: The intersection of a deeper level of intrinsic motivation. Advances in Developing Human Resources, 11(2), 189–203. doi:10.1177/1523422309333147.

Coffey, J. K., Warren, M., & Gottfried, A. (2014). Does infant happiness forecast adult life satisfaction? Examining subjective well-being in the first quarter century of life. Journal of Happiness Studies. doi: 10.1007/s10902-014-9556-x.

Csikszentmihalyi, M. (1988). The flow experience and its significance for human psychology. In M. Csikszentmihalyi & I. Csikszentmihalyi (Eds.), Optimal experience: Psychological studies of flow in consciousness (pp. 15–35). NY: Cambridge University Press.

Csikszentmihalyi, M. (1990). Flow: The psychology of optimal experience. New York: Harper & Row.

Cohn, M., & Fredrickson, B. (2009). Positive emotions. In S. J. Lopez & C. R. Snyder (Eds.), Oxford handbook of positive psychology (2nd ed., pp. 13–24). NY: Oxford University Press.

Debats, D., Van der Lubbe, P., & Wezeman, F. (1993). On the psychometric properties of the life regard index (LRI): A measure of meaningful life: An evaluation in three independent samples based on the dutch version. Personality and Individual Differences, 14, 337–345. doi:10.1016/0191-8869(93)90132-M.

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. American Psychologist, 55(1), 34–43. doi:10.1037/0003-066X.55.1.34.

Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E. M. Suh (Eds.), Culture and subjective well-being (pp. 185–218). Cambridge, MA US: The MIT Press.

Diener, E., & Seligman, M. (2002). Very happy people. Psychological Science, 13(1), 81–84. doi:10.1111/1467-9280.00415.

Duckworth, A. and Gross, J. (2014). Self-Control and Grit. *Current Directions in Psychological Science*, 23(5), pp.319-325.

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). *Journal of Personality and Social Psychology, 92*(6), 1087.

Duckworth, A. L., & Quinn, P. D. (2009). Development and validation of the Short Grit Scale (Grit-S). *Journal of Personality Assessment*, *91*, 166–174.

Duckworth, A. L., & Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science*, *16*, 939–944.

Engeser, S., Rheinberg, F., Vollmeyer, R., & Bischoff, J. (2005). Motivation, flow-experience, and performance in learning settings at Universities. German Journal of Educational Psychology, 19,159–172. doi:10.1024/1010-0652.19.3.159.

Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist*, *49*, 725–747.

Eskreis-Winkler, L., Shulman, E. P., Beale, S. A., & Duckworth, A. L. (2014). The grit effect: Predicting retention in the military, the workplace, school and marriage. Frontiers in Psychology, 5, Article 36. Retrieved from http://journal.frontiersin.org/Journal/10.3389/fpsyg.2014.00036/full

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology. American Psychologist, 56, 218-226.

Freud, S. (1920). *Introductory lectures on psychoanalysis*. New York, NY: W.W. Norton. Grant, H., & Dweck, C. (2003). Clarifying achievement goals and their impact. Journal of Personality and Social Psychology, 85(3), 541–553. doi:10.1037/0022-3514.85.3.541.

James, W. (1890). *The principles of psychology* (Vol. II). New York, NY: Henry Holt.

Learnovation. 2009. Inspiring Young People to Become Lifelong Learners in 2025. Vision Paper 1. Brussels, MENON, pp. 1-12. www.menon.org.gr/wp-content/uploads/2012/10/ Learnovation-Vision-Paper-1_Learning-at-School-Ages1.pdf (Accessed 10 March 2014).

Locke, E. A., & Latham, G. P. (Eds.). (2013). New developments in goal setting and task performance. New York, NY: Routledge.

Lounsbury, J.W., Fisher, L.A., Levy, J.J., & Welsh, D.P. (2009). An investigation of character strengths in relation to the academic success of college students, Individual Difference Research, 7 (1), 52-69.

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? Psychological Bulletin, 131(6), 803–855. doi:10.1037/0033-2909.131.6.803.

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H. L., Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences, USA*, *108*, 2693–2698.

Park, N., & Peterson, C. (2006). Moral competence and character strengths among adolescents: The development and validation of the Values in Action Inventory of Strengths for Youth. *Journal of Adolescence*, *29*, 891-905.

Park, N. & Peterson, C. (2008a). Positive psychology and Character Strengths: Application to strengths-based school counseling. Professional School Counseling, 12 (2), 85-92. Park, N., and Peterson, C. (2009) Character Strengths: Research and Practice, Journal of College and Character, 10:4, DOI: 10.2202/1940-1639.1042

Peterson, C. & Seligman, M.E.P., 2004, Character strengths and virtues: A handbook and classification, Oxford University Press, New York.

Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78. doi:10.1037/0003-066X.55.1.68.

Seligman, M. (2011). Flourish: A visionary new understanding of happiness and well-being. NY: Free Press.

Steger, M., Oishi, S., & Kashdan, T. (2009). Meaning in life across the life span: Levels and correlates of meaning in life from emerging adulthood to older adulthood. The Journal of Positive Psychology, 4(1), 43–52. doi:10.1080/17439760802303127.

Vallerand, R. J., Houlfort, N., & Forest, J. (2014). Passion for work: Determinants and outcomes. In M. Gagne (Ed.), *Oxford handbook of work engagement, motivation, and self-determination theory* (pp 85–105). New York, NY: Oxford University Press.

Wrzesniewski, A. (2012). Callings. In K. S. Cameron & G. M. Spreitzer (Eds.), *The Oxford handbook of positive organizational scholarship* (pp. 45–55). New York, NY: Oxford University Press. Yearley, L. H. (1990). Mencius and Aquinas: Theories of virtue and conceptions of courage. Albany, NY: State University of New York Press