A COMPARATIVE STUDY OF ATTITUDES TOWARD TRANSITION FROM THE SINGAPORE NATIONAL CURRICULUM IN PRIMARY LEVEL TO THE UK CAMBRIDGE INTERNATIONAL CURRICULUM IN SECONDARY LEVEL HELD BY SECONDARY YEARS 1 TO 4 STUDENTS IN ENGLISH, MATHEMATICS AND SCIENCE SUBJECTS AT AN INTERNATIONAL SCHOOL IN GREATER BANGKOK, THAILAND

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Abstract: This quantitative study was conducted to compare, among different secondary year levels, the attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum in the secondary level held by Secondary Years 1 to 4 students in three academic subjects (i.e., English, Mathematics and Science) at an international school in Greater Bangkok, Thailand. This study was conducted on 102 students in Secondary Years 1 to 4 in the academic year 2019-2020. The target school follows the Singapore Ministry of Education's national curriculum at nursery, kindergarten, and primary school levels, while the school follows the UK Cambridge International Curriculum at the secondary level. A questionnaire entitled the Questionnaire for Attitudes Toward Transition from the Singapore National Curriculum in Primary Level to the UK Cambridge International Curriculum in Secondary Level was developed for the data collection. The questionnaire comprised three 15-item sections (one for each subject), coded on a 6-point Likert scale, designed to assess students' attitude toward the curricular transition in relation to six dimensions; timetable, classwork, homework, assessment, teachers, and textbooks. The data analysis found that the participants' attitudes toward the curricular transition in English, Mathematics, and Science ranged from slightly negative to positive. A multivariate analysis of variance (MANOVA) revealed that, in

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the English subject, there was a significant difference between students' attitudes toward the curricular transition along with all year levels. There was a significant difference in the Mathematics subject between students' attitudes toward the curricular transition among Secondary Year 1 and Year 2 students and Secondary Year 2 and Years 3 and 4 students. In the Science subject, there was a significant difference between students' attitudes toward the curricular transition among Secondary Year 1 and Years 3 and 4 students, and Secondary Year 2 and Years 3 and 4 students. Based on the research findings, recommendations for students, parents, teachers, administrators, and future researchers.

Keywords: Attitudes Toward Transition; Singapore National Curriculum; UK Cambridge International Curriculum; Primary Level; Secondary Level; English; Mathematics; Science; International School; Thailand

Introduction

Transition in the context of education refers to the significant changes in students' experience moving from one school setting to another (Akos, 2002; Disseler, 2010). The changes can either cause negative or positive consequences on students' adjustments to the new setting (Cauley & Jovanovich, 2006; Disseler, 2010). This study focused on students transitioning from one curriculum at the primary level to another at the secondary level at an international school in Greater Bangkok.

The transition from one curriculum to another is challenging, given that it involves significant changes in several school aspects (Akos, 2002; Disseler, 2010). These changes could occur in both management and instruction, which are considered the focal points of concern in transition (Akos, 2002). Changes in those points of concern in transition could cause students and staff to become unfamiliar with different school aspects, such as regulations, assessment, learning styles, and instructional strategies (Akos, 2002; Campbell-Wilder, 2009). Consequently, changes in those points of concern in transition can affect their physical, emotional, cultural, and social development, which may cause pressure on students (Akos, 2002; Campbell-Wilder, 2009; Disseler, 2010; Elias, 2001; Spies, 2005).

There are various aspects concerning a curricular transition. However, according to previous studies, there are six main points of concern in transition in terms of both management and instruction: timetable, classwork, homework, assessment, teachers, and textbooks (Cohlhepp, 2018; Holland, 2018; Manachon & Eamoraphan, 2017; Moore, 2009; Schmidt, 2006; Stockton, 2011; Stowers, 2014). In the present study, these six main points of

concern comprise the model for factors of concern in curricular transitions.

Students' attitude toward transition, which involves changes in instructional contents, environmental context, and personal change, is significant in a curricular transition. Students' attitudes toward transition could affect positive and negative feelings, opinions, and thoughts (Philipp, 2007).

In the context of the target school, transitioning from the Singapore National Curriculum to the UK Cambridge International Curriculum should be smooth. The curricular transition is implemented within the same school environment. However, students' attitudes toward the transition could vary.

The Singapore National Curriculum and the UK Cambridge International Curriculum, along with their learning paradigm in three common subjects in the two curricula (i.e., English, Mathematics, and Science), and the differences between the two curricula according to the model for factors of concern in curricular transitions, are presented in this study. Ultimately, students' attitudes toward curricular transition, from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level, in common target subjects are presented.

Research Objectives

This research aimed to address the following objectives.

1. To determine the attitudes toward a transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level held by Secondary Years 1 to 4 students in the English subject at an international school in Greater Bangkok, Thailand.
2. To determine the attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level held by Secondary Years 1 to 4 students in the Mathematics subject at an international school in Greater Bangkok, Thailand.
3. To determine the attitudes toward the transition from the Singapore National Curriculum at primary level to the UK Cambridge International Curriculum at secondary level held by Secondary Years 1 to 4 students in the Science subject at an international school in Greater Bangkok, Thailand.
4. To determine whether there is a significant difference in attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level held by Secondary Years 1 to 4 students in the English, Mathematics, and

Science subjects at an international school in Greater Bangkok, Thailand.

Theoretical Framework

This study was based on the model for factors of concern in curricular transitions, which refers to six points of concern mentioned in previous studies, and the tri-component attitude model.

Model for Factors of Concern in Curricular Transitions

According to the literature, there are six main points of concern in curricular transitions: timetable, classwork, homework, assessment, teachers, and textbooks (Cohlhepp, 2018; Holland, 2018; Manachon & Eamoraphan, 2017; Moore, 2009; Schmidt, 2006; Stockton, 2011; Stowers, 2014).

Timetable

Students would spend the first few weeks adjusting to the new class schedule, which could differ from one curriculum to another (Stowers, 2014). In terms of class length, classes under one curriculum could be longer than under the other, which would require time for students to familiarize themselves (Stockton, 2011; Stowers, 2014).

Classwork

Students need support in organizing the changes in the amount, variety, and support of classwork. Students are concerned with the difference in classwork when transitioning to a different curricular setting (Holland, 2018; Stowers, 2014). The different types of classwork when transitioning to a new curriculum can also affect a student's ability to adjust (Stowers, 2014). Support for classwork is also another essential element in which a positive relationship and support given by teachers and parents on classwork could help ease students' difficulties in adjusting to the new types of classwork under the new curriculum, both in terms of amount and variety (Holland, 2018; Stowers, 2014).

Homework

Students usually perceive their homework burden as more significant when transitioning into a new curriculum (Cohlhepp, 2018; Schmidt, 2006; Stowers, 2014). Moreover, the types of homework and support received on homework can also affect students' adaptability. Homework is one of the top three concerns when transitioning to a new curriculum (Akos, 2002; Moore, 2009). The support given by parents and the clear expectations given by teachers would help students adapt to the new context (Cohlhepp; 2018; Holland, 2018; Stockton, 2011).

Assessment

Students are usually concerned about the types of examinations under the new curriculum to measure their academic progress, which might differ from those in the previous curriculum (Cohlhepp, 2018; Schmidt, 2006). Moreover, test-taking strategies are needed to help students adjust to the types of assessments in the new curriculum (Cohlhepp, 2018).

Teacher

The number of teachers may vary on different curricula in different schools (Beresford, 2013; Cohlhepp, 2018; Moore, 2009; Stockton, 2011). Moreover, the relationship between students and teachers could affect students' motivation and adaptation to school, especially under a new curriculum (Beresford, 2013; Cohlhepp, 2018; Moore, 2009). A positive relationship with their teachers helps students transition to the new environment and vice versa (Beresford, 2013; Cauley & Jovanovich, 2006; Cohlhepp, 2018).

Textbooks

With the change in several textbooks, students find it difficult to adjust themselves to the new curriculum (Stockton, 2011; Stowers, 2014). Moreover, the difference in organization and structure of the textbooks may also affect students' adaptability to a new curriculum (Manachon & Eamoraphan, 2017; Stowers, 2014).

Tri-component Attitude Model

Attitude refers to an individuals' thoughts, feelings, and opinions toward a particular phenomenon usually manifested as specific dispositions or emotional evaluations on the degree of how much a person favors, likes, or dislikes the phenomenon at hand (Gardner, 2010; Makanyeza, 2014; Philipp, 2007). An attitude comprises three components: cognition (which refers to one's prior knowledge and perception), affect (which refers to one's emotions and feelings), and conation (which refers to one's actions or behavior; Makanyeza, 2014; Schiffman & Kanuk, 2007). The three components could form a negative attitude in students, hindering their smooth transition from one curriculum to another (Cauley & Jovanovich, 2006; Disseler, 2010). However, the three components could also form a positive attitude, which will become a growth catalyst facilitating the assimilation of the new curriculum and a smooth curricular transition (Cauley & Jovanovich, 2006; Elias, 2001).

Conceptual Framework

The three dependent variables addressed in this study were determined by participants' attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International

Curriculum at the secondary level in three common core subjects: English, Mathematics, and Science. These dependent variables were compared among the three students' groups participating in this study (Figure 1).

The conceptual framework of this study is shown below.

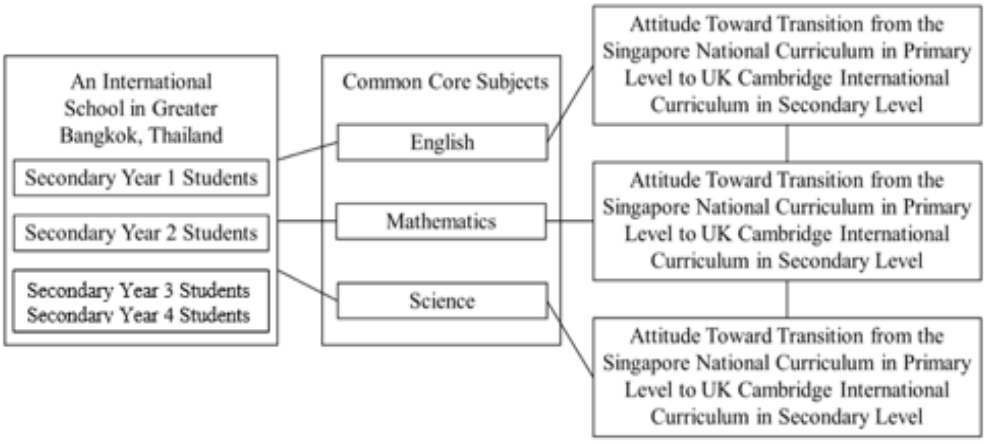

Figure 1. ***Conceptual Framework for this Study***

Literature Review

In this section, some previous studies related to the research variables addressed in this study and the Singapore National Curriculum for Primary Schools and the UK Cambridge International Curriculum for Secondary School, the curriculum used in the target school, are reviewed and summarized.

A previous study conducted by Beresford (2013) found that the relationship between students and teachers affects their motivation and adaptation in school, especially in a new curricular setting. A positive relationship between teachers and students includes warmth, clear communication, respect, approachability, and fairness. These elements can affect students' motivation when transitioning to a new school context (Beresford, 2013). On the contrary, a negative relationship between teachers and students would affect students' adaptability to the new school context (Beresford, 2013).

Previous studies conducted by Cauley and Jovanovich (2006) and Cohlhepp (2018) indicated that a positive relationship between teachers and students helps students transition smoothly, both academically and personally, in different school aspects, such as adapting to the new momentum of classwork and homework and adjusting with new friends. Moreover, students would

benefit from teachers' support on classwork beyond the class time during advisory or study hall time (Cohlhepp, 2018).

Singapore National Curriculum for Primary Schools refers to the national curriculum developed by the Ministry of Education of the Republic of Singapore. The curriculum pathway is six years, starting from Primary 1 for students ages six to seven, until Primary 6, which is for students ages 11 to 12 (Ministry of Education Singapore, 2019). The curriculum aims to produce a well-rounded learner with the following foundations: acquiring strong values, acquiring patriotism for the country, and acquiring literacy and numeracy, which are acquired through the core subjects of Languages, Mathematics and Sciences, and Humanities and the Arts (Ministry of Education Singapore, 2019).

UK Cambridge International Curriculum for Secondary School refers to the curriculum designed by Cambridge International Education based in the United Kingdom or the UK for Cambridge schools implementing curriculum designed by Cambridge International Education around the world (Cambridge International, 2019). Cambridge schools are entitled to utilize all learning resources (i.e., textbooks, worksheets, papers, and training) designed by Cambridge International (Cambridge International, 2019). There are three stages for the Cambridge curriculum: lower secondary for students aged 12 to 14 years old, Cambridge IGCSE for 14 to 16 years old, and Cambridge advanced for students aged 16 to 18 years old (Cambridge International, 2019).

Methodology/Procedure

Population and Sample

This research was conducted on a population sample of 102 students from Secondary Years 1 to 4 students enrolled at an international school in Greater Bangkok, Thailand, during the academic year of 2019-2020 (40 Secondary Year 1 students, 30 Secondary Year 2 students, 23 Secondary Year 3 students, and 9 Secondary Year 4 students).

Research Instrument

The instrument used in this study, entitled the Questionnaire for Attitudes Toward Transition from the Singapore National Curriculum in Primary Level to the UK Cambridge International Curriculum in Secondary Level, was developed by the researchers based on research instruments used in other studies, such as the High School Freshman Transition Questionnaire (Beresford, 2013), Franklin Area Junior and Senior High School Transition Survey (Cohlhepp, 2018), Student Interview (Holland, 2018), Questionnaire

of Attitudes Toward English as a Foreign Language Learning (Manachon & Eamoraphan, 2017), Student Perception Survey Instrument (Moore, 2009), Sixth Grade Student Transition Pre and Post-Intervention Survey (Schmidt, 2006), School Transition Concerns Survey for Elementary School Students (Stockton, 2011), and Sixth Grade Student Questionnaire (Stowers, 2014).

The instrument comprises three sections for common core subjects (i.e., English, Mathematics, and Science). Each section consists of 15 items, which are identical across the three sections (Table 1).

Table 1. *Items Comprising the Questionnaire Used in the Present Study*

Item No.	Item statement
	Timetable
1	I am happy with the class schedule of the English/Mathematics/Science subject in secondary as compared to previously in primary
2	I am happy with the length of the class period of the English/Mathematics/Science subject in secondary as compared to previously in primary
	Classwork
3	I am happy with the amount of classwork I am assigned in the English/Mathematics/Science subject in secondary as compared to previously in primary
4	I am happy with the variety of classwork: pair, group, and individual of the English/Mathematics/Science subject in secondary as compared to previously in primary
5	I am happy with giving a presentation in front of others in the English/Mathematics/Science subject in secondary as compared to previously in primary
6	I am happy with the help received on class assignments of the English/Mathematics/Science subject in secondary as compared to previously in primary
	Homework
7	I am happy with the amount of homework I am assigned in the English/Mathematics/Science subject in secondary as compared to previously in primary
8	I am happy with the variety of homework: pair, group, and individual of the English/Mathematics/Science subject in secondary as compared to previously in primary
9	I am happy with the help received on homework for the English/Mathematics/Science subject in secondary as

Item No.	Item statement
	compared to previously in primary
	Assessment
10	I am happy with taking formative tests: topic and unit tests in English/Mathematics/Science subject in secondary as compared to previously in primary
11	I am happy with taking summative tests: midyear, yearend, checkpoint, IGCSE tests in English/Mathematics/Science subject in secondary as compared to previously in primary
	Teachers
12	I am happy with having different teachers for every English/Mathematics/Science subject in secondary as compared to previously in primary
13	I am happy with the teachers' support to students in the English/Mathematics/Science subject in secondary as compared to previously in primary
	Textbooks
14	I am happy with the number of textbooks used in the English/Mathematics/Science subject in secondary as compared to previously in primary
15	I am happy with the textbooks format of the English/Mathematics/Science subject in secondary as compared to previously in primary

The items aimed to determine attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the three common core subjects. The item statements were positively worded. In each item, respondents were expected to rate their level of discrepancy using a 6-point Likert scale (6 = *strongly agree*, 5 = *agree*, 4 = *slightly agree*, 3 = *slightly disagree*, 2 = *disagree*, 1 = *strongly disagree*).

Research Findings

The collected data were analyzed by using descriptive statistics (means and standard deviations) (Table 2) and statistical hypothesis testing (multivariate analysis of variance) (Tables 3 and 4) to address the research objectives.

Table 2. *Mean Scores, Standard Deviations, and Interpretations of Attitudes Toward Transition from the Singapore National Curriculum in Primary Level to the UK Cambridge International Curriculum in Secondary Level in the English, Mathematics, and Science Subjects Held by Secondary Year 1 to 4 Students*

Year level	*n*	*M*	*SD*	Interpretation of attitudes
		English		
Secondary Year 1	40	3.95	.93	Slightly positive
Secondary Year 2	30	3.31	1.96	Slightly negative
Secondary Years 3 and 4	32	4.65	.88	Positive
Overall	102	3.97	.95	Slightly positive
		Mathematics		
Secondary Year 1	40	3.47	1.26	Slightly negative
Secondary Year 2	30	5.06	1.20	Positive
Secondary Years 3 and 4	32	4.04	1.60	Slightly positive
Overall	102	4.17	1.33	Slightly positive
		Science		
Secondary Year 1	40	4.65	1.25	Positive
Secondary Year 2	30	4.98	1.24	Positive
Secondary Years 3 and 4	32	4.10	1.23	Slightly positive
Overall	102	4.58	1.25	Positive

Table 3. *Results of ANOVA on Students' Attitudes Toward Transition in the English, Mathematics, and Science Subjects According to Year Level*

	dfs			
Year level	Between groups	Within groups	*F*	*p*
	English			
Secondary Year 1 Secondary Year 2 Secondary Years 3 and 4	2	99	31.28	<.001
	Mathematics			
Secondary Year 1 Secondary Year 2 Secondary Years 3 and 4	2	99	28.87	<.001

Year level	*dfs* Between groups / Within groups		*F*	*p*
	Science			
Secondary Year 1 Secondary Year 2 Secondary Years 3 and 4	2	99	8.51	<.001

Table 4. *Results of Games-Howell Post Hoc Multiple Comparison Test on Attitudes Toward Transition from the Singapore National Curriculum in Primary level to the UK Cambridge International Curriculum in Secondary level in the English, Mathematics, and Science Subjects Among Year Levels*

Between-group comparison	Secondary Year 1	Secondary Year 2	Secondary Years 3 and 4
	English		
Secondary Year 1	-		
Secondary Year 2	-.64*(.002)	-	
Secondary Years 3 and 4	.70*(<.001)	1.33*(<.001)	-
	Mathematics		
Secondary Year 1	-		
Secondary Year 2	1.60*(<.001)	-	
Secondary Years 3 and 4	.53(.054)	-1.07*(<.001)	-
	Science		
Secondary Year 1	-		
Secondary Year 2	.33(.27)	-	
Secondary Years 3 and 4	-.55*(.02)	-.88*(<.001)	-

Note. * denotes a statistically significant relationship (statistical significance level set at $p = .05$, two-tailed). *P*-values appear within parentheses under the mean difference values.

The following are the findings from each objective.

Findings from Research Objective 1

Regarding this research objective, the following findings were obtained.

- Secondary Years 1 to 4 students at an international school in Greater Bangkok had a slightly positive attitude toward the transition from the Singapore National Curriculum at primary level to the UK Cambridge International Curriculum at secondary level in the English subject, $M = 3.97$, $SD = .95$.
    - Secondary Year 1 students at the target school had a slightly positive

attitude toward transitioning from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in English, *M* = 3.95, *SD* = .58.
    - Secondary Year 2 students at the target school had a slightly negative attitude toward transitioning from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the English subject, *M* = 3.31, *SD* = 1.96.
    - Secondary Years 3 and 4 students at the target school had a positive attitude toward transitioning from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the English subject, *M* = 4.65, *SD* = .88.

Findings from Research Objective 2

Regarding this research objective, the following findings were obtained.

- Secondary Years 1 to 4 students at an international school in Greater Bangkok had a slightly positive attitude toward the transition from the Singapore National Curriculum at primary level to the UK Cambridge International Curriculum at secondary level in the Mathematics subject, *M* = 4.17, *SD* = 1.33.
    - Secondary Year 1 students at the target school had a slightly negative attitude toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the Mathematics subject, *M* = 3.47, *SD* = 1.26.
    - Secondary Year 2 students at the target school had a positive attitude toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the Mathematics subject, *M* = 5.06, *SD* = 1.20.
    - Secondary Years 3 and 4 students at the target school had a slightly positive attitude toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the Mathematics subject, *M* = 4.04, *SD* = 1.60.

Findings from Research Objective 3

Regarding this research objective, the following findings were obtained.

- Secondary Years 1 to 4 students at an international school in Greater Bangkok had a positive attitude toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the Science subject, *M* = 4.58, *SD* = 1.25.
    - Secondary Year 1 students at the target school had a positive attitude toward the transition from the Singapore National Curriculum at the

primary level to the UK Cambridge International Curriculum at the secondary level in the Science subject, $M = 4.65$, $SD = 1.25$.

- Secondary Year 2 students at the target school had a positive attitude toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the Science subject, $M = 4.98$, $SD = 1.24$.
- Secondary Years 3 and 4 students at the target school had a slightly positive attitude toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the Science subject, $M = 4.10$, $SD = 1.23$.

Findings from Research Objective 4

Regarding this research objective, the following findings were obtained.

- There was a significant difference in attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in each subject area between at least two of the groups being compared, Pillai's $V = .83$, $F(6, 196) = 23.38$, $p < .001$.
  - In the English subject, there was a significant difference between students' attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level between all the possible pairs of groups, $F(2, 99) = 31.28$, $p < .001$.
  - In the Mathematics subject, there was a significant difference between students' attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level between Secondary Year 1 and Secondary Year 2 students, as well as between Secondary Year 2 and Secondary Years 3-4 students, $F(2, 99) = 28.87$, $p < .001$.
  - In the Science subject, there was a significant difference between students' attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level between Secondary Year 1 students and Secondary Years 3-4 students, as well as between Secondary Year 2 students and Secondary Years 3-4 students, $F(2, 99) = 8.51$, $p < .001$.

Discussion

This section discusses the findings obtained from the current study, placing them in context with previous studies. The discussion is presented and organized by variables.

Attitudes Toward Transition in the English Subject

There was a significant difference between students' attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the English subject among all year levels.

Secondary Years 3 and 4 students had a positive attitude toward the curricular transition. In the context of the target school, English has always been their core subject since the primary language of instruction. Secondary Years 3 and 4 students are already used to the language itself. Even though English at their year level is more intense and demanding, students seem to be more adaptive to the changes in comparison to students in the lower year levels. This is aligned with Akos (2002) and Stockton (2011), who mentioned that students would spend a significant amount of time adjusting to the new learning format, and they would gradually be accustomed to the new format as they proceed to the next year levels in the new school environment.

Secondary Year 2 students had a slightly negative attitude, while Secondary Year 1 students had a slightly positive attitude. Secondary Year 2 students have built a weaker rapport with their English teachers, who are also their homeroom teachers, compared to Secondary Year 1 students and their English teachers, who also are their homeroom teachers. In the target school, students are very attached to their homeroom teachers. Hence, a positive rapport between students and teachers would contribute positively to their motivation in their respective subjects. This coincides with previous studies explaining that the teacher-student relationship affects students' motivation and adaptation to new settings (Beresford, 2013).

Attitudes Toward Transition in the Mathematics Subject

There was a significant difference between students' attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum in the Mathematics subject among Secondary Year 1 and Year 2 students and Secondary Year 2 and Years 3 and 4 students.

Secondary Year 2 students had a positive attitude toward the curricular transition. The Secondary Year 2 Mathematics teacher has been a teacher at the target school for a long time and has taught almost all Secondary Year 2 students previously at the primary level. Moreover, the Mathematics teacher is experienced and senior. A strong rapport between teacher and students was built through her expertise, long-time experience at the target school, and acquaintance with the Secondary Year 2 students. This is aligned with

previous studies reporting that the relationship between students and teachers could affect students' motivation and adaptation in school, especially in a new school setting and under a new curriculum (Beresford, 2013; Cohlhepp, 2018; Moore, 2009).

Secondary Year 1 students had a slightly negative attitude toward this curricular transition. Secondary Year 1 Mathematics teacher has built a weak rapport with the students. The Secondary Year 1 Mathematics teacher seems to be acquainted with older students who are more independent. In contrast, the Secondary Year 1 students are not yet fully independent and would need a lot of support, encouragement, and follow-up of work from the teacher. This aligns with previous studies reporting that the teacher plays an essential role in students' adjustment when they transition from one school setting to another (Moore, 2009; Schmidt, 2006). A negative relationship would affect students' adaptability to the new school context (Beresford, 2013). Given that Secondary Year 1 students are not fully independent, they would need a lot of support from their teacher for classwork and homework.

Attitudes Toward Transition in the Science Subject

There was a significant difference between students' attitudes toward the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level in the Science subject among Secondary Year 1 and Years 3 and 4 students, and Secondary Year 2 and Years 3 and 4 students.

Secondary Years 3 and 4 students had a slightly positive attitude. The Science subject results seem to contradict the other subjects and previous studies, where students are expected to be more adaptive to the new environment as they progress (Holland, 2018; Stowers, 2014). In the target school, lower secondary students pursue General Science in Secondary Years 1 and 2. General Science subject is similar to Primary Science because students still follow a timetable with similar rigor, and students also have one teacher for the subject. However, in Secondary Years 3 and 4, students now pursue Pure Science, which comprises three subjects: Chemistry, Biology, and Chemistry. Three different teachers teach these three disciplines. The number of hours per week has increased drastically to eight hours per week for all three disciplines.

Moreover, in terms of assessment, the number of tests for Secondary Years 3 and 4 Science subjects increases drastically, according to the three disciplines. For the Science subject, the transition starts when they are in Secondary Year 3, not in Secondary Year 1, compared to the English and Mathematics subjects. Students would start to feel worried about the changes and need more

support in the initial stage of transition (Cohlhepp, 2018; Moore, 2009; Schmidt, 2006; Stowers, 2014). In the context of the target school for the Science subject, students have reached this point in Secondary Year 3.

Recommendations

The recommendations of the current study are intended to benefit students, parents, teachers, administrators, and future researchers.

Recommendations for Students

Students should consistently sustain their level of effort spent in each subject. With consistent effort, students will cope with the changes in timetable, classwork, homework, assessment, teachers, and textbooks in succeeding years.

Recommendations for Parents

Parents should participate in the transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level by supporting students to progress to higher years. Parents could contribute by asking students if help or support is needed for their changes in timetable, classwork, homework, assessment, teachers, and textbooks.

Recommendations for Teachers

Teachers play an essential role in influencing and enabling students to adjust to the new curriculum. A strong rapport must be built between the teacher and students to smoothly transition from the Singapore National Curriculum at the primary level to the UK Cambridge International Curriculum at the secondary level.

Recommendations for Administrators

As managers of the curriculum, people serving as heads of English, Mathematics, and Science departments should consistently monitor and observe if their team members perform as expected or beyond the teaching quality standards, both in their lesson planning and lesson implementation. As managers, the heads of departments should always include best practice sharing among their team members as part of professional development to ensure that individual teachers maintain teaching quality standards.

Recommendations for Future Researchers

There are two issues to be considered for further research. Firstly, the number of years a student has been with the previous curriculum before transitioning to a new curriculum. It was not identified if the number of years a student is

exposed to the Singapore National Curriculum would affect their transition into the UK Cambridge International Curriculum. Secondly, consideration of the rapport between teacher and students. The questionnaire only captures the notion of having different teachers and the support students receive from the teachers, but not the positive and negative relationship between the teachers and students, which could be addressed in future studies.

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