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**EMOTIONAL INTELLIGENCE, SOCIAL INTELLIGENCE AND  
STUDENTS' STRATEGIC LEARNING BEHAVIOUR**



**MALI PRADITSANG**

**UUM**  

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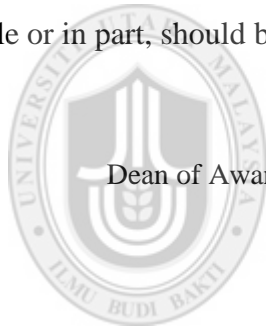
**Universiti Utara Malaysia**

**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
2016**

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## Abstrak

Terdapat peningkatan dalam enrolmen pelajar di universiti-universiti di Pusat Pengajian Tinggi di Thailand. Walau bagaimanapun, pengekalan pelajar telah menjadi satu masalah bagi institusi pengajian tinggi terutamanya bagi Universiti Rajabhat Songkla. Walaupun enrolmen pelajar di Universiti Rajabhat Songkla semakin meningkat setiap tahun, bilangan pelajar yang berjaya menamatkan pengajian didapati berkurangan secara drastik. Oleh itu, kajian ini dijalankan untuk mengkaji tahap kecerdasan emosi pelajar, kecerdasan sosial dan tingkah laku pembelajaran strategik; pengaruh kecerdasan emosi dan sosial pelajar, tingkah laku pembelajaran strategik dan peranan faktor-faktor demografi terhadap hubungan antara kecerdasan emosi, kecerdasan sosial dan tingkah laku pembelajaran strategik. Kaedah tinjauan digunakan untuk mengumpul maklumat daripada 569 orang pelajar tahun pertama. Soal selidik yang digunakan merangkumi faktor-faktor demografi, kecerdasan emosi, kecerdasan sosial dan tingkah laku pembelajaran strategik. Hasilnya menunjukkan bahawa kecerdasan emosi (3.80) dan kecerdasan social (3.77) berada pada tahap yang tinggi sementara tingkah laku pembelajaran strategic (3.52) berada pada tahap sederhana. Hal ini mendedahkan bahawa tidak terdapat perbezaan yang signifikan di antara kecerdasan emosi; kecerdasan sosial dan tingkah laku pembelajaran strategic berdasarkan factor demografi. Kecerdasan sosial dan kecerdasan emosi mempunyai hubungan yang signifikan dengan tingkah laku pembelajaran strategik. Oleh itu, kajian ini menunjukkan bahawa kecerdasan sosial dan emosi adalah faktor penting yang perlu dipertimbangkan dalam meningkatkan tingkah laku pembelajaran strategik pelajar. Hal ini akan membantu para pensyarah, pentadbir pusat pengajian, pembuat dasar dan kerajaan dalam merancang strategi untuk meningkatkan kadar kelulusan pelajar.

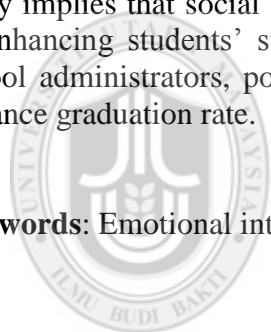
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**Kata kunci:** Kecerdasan emosi, Kecerdasan sosial, Tingkah laku pembelajaran strategik

## Abstract

There has been an increase in the enrolment of students in Institution of Higher Education in Thailand. However, retention of students has become a problem for Thai institutions of higher education and especially for Songkla Rajabhat University. While the enrolment of students at Songkhla Rajabhat University is increasing throughout the years, the number of students graduating is drastically decreasing. This study was therefore conducted to examine the level of students' emotional intelligence, social intelligence and strategic learning behaviour; the influence of emotional and social intelligence on students' strategic learning behaviour and the role of demographic factors on the relationship between emotional intelligence, social intelligence and strategic learning behaviour. A survey method was used to gathered information from 569 first year students. The questionnaire covers demographic factors, emotional intelligence, social intelligence and strategic learning behavior. The results showed that emotional intelligence (3.80) and social intelligence (3.77) were high while strategic learning behaviour (3.52) was at medium level. It was also revealed that there was no significant on emotional intelligence; social intelligence and strategic learning behavior base on demographic factors. Social intelligence and emotional intelligence were significantly related to strategic learning behaviour. Therefore, this study implies that social and emotional intelligence are important factors to consider in enhancing students' strategic learning behavior and this will help the lecturers, school administrators, policy makers and the government in designing strategies to enhance graduation rate.

**Keywords:** Emotional intelligence, social intelligence, strategic learning behavior



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## Acknowledgement

The completion of my Ph.D. is the most challenging task that I have ever thought I could do. I wish to thank my supervisor, Prof. Madya Dr. Zahyah Hanafi who gave me a chance to be her Ph.D. student in 2011 and who never left me even during hard times. Her guidance, constructive criticism and suggestions has helped me to complete my Ph.D. programme and I really enjoyed all the great moment we had together. All my experiences during my Ph.D. journey especially in attending English classes at Auckland University, New Zealand; paper presentations in conferences both in Brunei and Japan and; two articles published in scopus journals were accomplished by her encouragement and commitment.

I would like to thank Prof. Dr. Mohamad Sahari Nordin from International Islamic University Malaysia who was my external examiner; Assoc. Prof. Dr. Fauziah Abdul Rahim, my internal examiner and; Assoc. Prof. Dr. Mohd Izam Ghazali, the chairman of my thesis examination panel for their suggestion to improve the quality of my thesis.

I would also like to take this opportunity to thank Songkhla Rajabhat University who generously sponsored my study. I wish to thank Leetim and Praditsang family who have been supportive and source of motivation throughout my study. Most especially, Pol.Lt.Col. Arnon Praditsang for his kind gesture, concerns and attentions throughout my Ph.D. programme.

I also wish to thank all those who have in one way or the other helped me during my study years. Kavin Marshal, a Canadian friend from Songkhla Rajabhat University, Thailand, who was the first native speaker to help me improve my English and edited my work; Assoc. Prof. Dr. Monta Chatupote from Prince of Songkhla University, Thailand, who has also helped with editing of my writing; Maria Treadaway from Auckland University, New Zealand; Visiting Prof. Dr Tim Walters from USA, who helped edited my writing after proposal defended until I completed my thesis; Dr. Khaldoon , who advised me in publishing my findings in scopus journals and kindly

helped to put together my thesis and a big thank you to Lecturer Poonsak Ngenmuen who spent time helping me with the statistics, and very big thanks to David Jimoh Kayode , a Ph.D. candidate for his help and suggestions with my theses correction. Without all the encouragement, love and caring of these people I would not have made it to this stage of my career. Finally, I say thank you to everyone I met in UUM. It was a nice time in my life to study in UUM and meet all of you.



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## List of Publications

### Professional Journal

Mali Praditsang & Zahyah Hanafi (2015, March). Constructing a Three-Part Instrument for Emotional Intelligence, Social Intelligence and Learning Behaviour . *Mediterranean Journal of Social Sciences*, 6 (2), 489-493.

Mali Praditsang & Zahyah Hanafi (2015, March). The Relationship between Emotional Quotient and Learning Behaviour of Fourth Year University Students. *Mediterranean Journal of Social Sciences*, 6 (2), 563-568.

### Conference Proceeding

Mali Praditsang & Zahyah Hanafi (2013). Relationship between Adversity Quotient and Learning Behaviour Among Fourth Year Students at Songkhla Rajabhat University. 2013 3rd International Conference on Education, Research and Innovation (ICERI 2013), 28-29, September 2013, Bandar Seri Begawan, Brunei Darussalam.

Mali Praditsang & Zahyah Hanafi (2014). The construction of the emotional intelligence, social intelligence and learning behaviour instrument. International symposium on education, psychology, society and tourism. 28-30 March 2014, Tokyo, Japan.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Three models of learning in Thailand were created under the National Education Act of 1999, which were the formal, non-formal and informal educational systems. The education system under these models has emphasized the belief that all students have the capability to learn and develop themselves. Students and society in general are important stakeholders for all of these models because education must promote the natural development of students so they can achieve their full potentials for themselves and for the benefit of society at large.

Despite the articulated needs for high-quality in government directives and policy, the quality of education in Thailand has continuously declined in each of these models over one and half decade. According to the World Economic Forum (WEF) in 2011, which assessed the quality of education in Asian countries, Thailand ranked sixth for basic education and eighth for higher education compared to other Asian countries. Similarly, the International Mathematics and Science Study in 2011 of The International Association for the Evaluation of Educational Achievement (IEA) showed that mathematics and science education in primary and high schools in Thailand were declining, and a report from the Ordinary National Educational Test (O-NET) in 2011 also showed that test results for all subjects in primary and high schools in Thailand were low.

The Youth Network for Thai Education (2011) said that Thai education has failed to improve with respect to the management of the education system and to student learning styles, which typically focuses only on students' rote learning not upon critical thinking skills. Thus, the system does not prepare students to think critically. This failure will lead to an inability to handle work place tasks in a knowledge-age economy.

A similar situation has also been reported in the Indonesian higher education system. According to an Agence France Presse report (U.S. Library of Congress, 2014), the higher education system in Indonesia has low standards and lags behind many other countries in the Asian region. There are 92 public universities and 3,000 private universities in Indonesia but none were listed in the *Times Higher Education World Rankings* in 2012. The OECD (Organisation for Economic Co-operation and Development) disclosed that between 20 and 25 per cent of students who graduated from the University of Indonesia lacked the basic skills needed in the labour market. According to the students, the universities have ill-equipped facilities and the lecturers are of poor quality (OECD, 2014).

On the other hand, students in neighbouring Asian countries such as Singapore have performed excellently with respect to their academics. Their high status by services such as the QS World University Rankings is due to academic reputation, employer reputation, faculty- student ratio, and the presence of international students and international faculty. In addition, the Singapore government has provided strong support for higher education in the country. It is no accident that the National

University of Singapore (NUS) is ranked as the top university in Asia according to the QS World University Rankings (NUS, 2013). According to the NUS President:

We will continue to keep a sharp focus on nurturing and recruiting talented academics, staff and students, while providing a conducive environment for this thriving community to pioneer advances in education and research and its application that will have a strong positive impact on Singapore and society (NUS news, 2013, “ NUS ranked first in Asia,” para 4)

The success of a particular country’s education system not only depends on the governmental educational policy but also how focused the learning institutions are on the learning experiences of their students. Learning institutions must provide adequate academic support to meet the challenges students face during their study years at the institutions.

## **1.2 Problem Statement**

Located in Mueang Songkhla District, Songkhla, Thailand, Songkhla Rajabhat University (SKRU) is the oldest university in southern Thailand and is part of the Rajabhat University system. Today, the university has faculties of Arts, Agricultural Technology, Education, Humanities and Social Science, Industrial Technology, Management Science, and Science and Technology. Historically, the university has morphed steadily from a teaching college into a university. It serves as an educational institute for local development through research, academic services as well as arts and culture. The students attending the university come primarily from Songkhla, Pattalung and Satun provinces. In recent years, due to the unrest in southern Thailand, an increasing number of students have come from Pattani, Yala and Narathiwat.

Catering for local students, the university's main articulated mission is to develop, train and produce human capital, thereby equipping Thai students in the south with an equal chance for success and the opportunity to further themselves by means of higher education. In Thailand, students attending school in more remote economically disadvantaged areas in many parts of the north, northeast, and some parts of the south have much less chance of taking and/or passing the university entrance examination. To combat such inequalities, regional universities have developed special quota systems to ensure a specific number of slots for university students from their own regions (State University.com, n.d.).

Across Thailand, total tertiary enrollments are up substantially, growing from 1,033,3256 in academic year 1998 to 2,123,024 in academic year 2006 (Runckel & Associates, 2008). By 2012 about 51.4% of eligible students from secondary school were enrolled at university, compared to 15.8% in Cambodia, Malaysia 37.2%, China 26.7%, Indonesia 31.5%, and Viet Nam 24.6% (Knoema Data Atlas, 2015).

There has been an increase in enrolment figures in Thailand however retention of students has become a problem for Thai institutions of higher education and especially for Songkla Rajabhat University. While the enrolment of students at Songkhla Rajabhat University has increased slowly throughout the years, the number of students graduating has decreased (Songkhla Rajabhat University Academic Report, 2011). Indicative of the retention problem is a graduation rate of only 29% at the university level across all of Thailand, which suggests high dropout rates and a failure to sustain students (WENR, 2010). The dropout rate is important because it

serves as a basic general proxy to measure the success or failure of the Thai tertiary education system. Currently, these rates suggest this system is failing in its responsibility to society because drop rates are high.

The reasons for this failure are several and diverse. Some are connected with life-based issues as enrolment at a university begins with a complex period of profound change in a young adult's social, cultural, and academic lives. The adjustment can be quite confusing because students must learn to live and function in a new environment away from home. They must build relationships with new friends who come from various backgrounds and learn to succeed in a new environment (Kanyanamit, 1987). Across Thailand, students have different home environments and culture, different attitudes, different family structures, and different academic foundations. In no small measure, this is because there are seventy-six provinces in Thailand, comprising a mixture of the economically advantaged and the economically disadvantaged, and urban centres and rural areas with very rich and very poor (CIA factbook, 2015).

The problem of retaining students is most acute in the first year of study. Despite the various interventions and best intentions of policy makers, teachers and administrators, non-retention rates are abnormally high in Thailand. Solving the problem has become essential because student attrition is a serious issue not just for universities and society but also for the students themselves. That is because a dropout faces serious negative consequences with respect to future success.



The Thai educational system itself could be the important contributing factor to the low retention rate among students in southern Thailand. For years, Thai authorities have perceived intelligence quotient as a primary predictor for the future success of a student (Yothawisothi, 2000). In Thailand, the Department of Mental Health has reported that students from the three provinces in southern part of the country have the lowest Intelligent Quotients (henceforth will be referred to as IQs) compared to other provinces in the country. Among the three provinces, students in Naratiwat have the lowest intelligence quotient followed by those in Pattani and Yala. Such reliance on IQs is misguided and flies in the faces of current research, which emphasises nurture over nature. Such reliance can also lead to failure to provide support programs that could help all students succeed, letting the education chaff fall to the ground (Alloway, 2010).

A high intelligence quotient has been found to be no absolute guarantee of prosperity, prestige, or success in life (Goleman, 1995). That is because in no small measure I.Q. scores could reveal how good people are at taking the I.Q. test, not necessarily life outcomes such as academic achievement (Duckworth, Quinn, Lynam, Loeber, & Strouthamer-Loeber, 2011). Indeed, current research has found that the so-called Intelligence Quotient contributes only about 20 per cent to the factors that determine life success, which leaves 80 per cent for other influences. Thus, these other influences have a great impact on student performance, and are related to successful completion of a college course of study. Indeed, Gardner's (1983) Theory of Multiple Intelligences suggests that IQ is too narrow for predicting

success, that students are capable of learning in a variety of ways (Gardner, 2011) so as to ensure they graduate.

Following in Gardner's footsteps, other scholars have expanded the investigations into a wide range of factors other than IQ that contribute to academic success and the root causes of non-retention of students. The root factors linked to academic success and student retention have been studied extensively in the United States (Strayhorn, 2014; Swecker, Fifolt, & Searby, 2013) and in England (Clarke, Nelson., & Stoodley, 2013), with such study expanding to examine non-academic factors such as emotional and social intelligence. Research shows that these "non-academic" or "social/emotional" factors matter when it comes to persistence and academic achievement, and those directly related to academic activities matter the most (Pajares, 2002).

Students' beliefs about their own capabilities and their multiple intelligences can be grown if proper support programs are created. These include: 1) supportive teachers and peers who share a common goal of college success, 2) making explicit connections between the academic courses students take now with college and career objectives, 3) providing students with necessary resources. Among the necessary resources to overcome problems with IQ and help develop academic success are teaching students to be emotionally and socially intelligent as well as teaching them a variety of strategic learning behaviours.

Outside of the United States little research has been done on the factors leading to academic success at the university level. Some have been done in England, but little has been done in Asia and Thailand in particular (Payakkakom, 2008). In some measure, research about what leads to academic success at the college level in Thailand is accompanied with unique challenges. Few current studies exist, those that do exist are basic, and the data used is often flawed (Payakkakom, 2008). Studies in Western contexts (Wilmot, 2015) have shown that students can learn to become successful and remain in school if they are more able to connect with fellow students and faculty, are able to read and respond to the emotions of fellow students, and learn appropriate strategic learning behaviour. Clearly, such training is needed in the Thai context.

Because non-academic factors have been so little studied and because they have such a large potential impact on students' learning, this current study look at what other factors might contribute to students' learning strategies which may lead to academic success or failure in students. Thus, the focus of this current study is on factors such as emotional intelligence (henceforth will be referred to as EI) and social intelligence (henceforth will be referred to as SI) and the roles they may play in a student's successful transition from high school to university. Several educational proponents believe that instituting programs to improve students' emotional and social intelligence helps with academic success (Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013). Along with improving these multiple intelligences students can also learn appropriate learning behaviours. In learning these behaviours, students are able to develop specific, appropriate learning strategies, which they can execute to

achieve better academic results. Learning behaviours help students develop across three critical elements: the self, others, and the curriculum. Developing good behaviours leads, in turn, to utilizing appropriate learning strategies, including working with others, improving memory, test taking, time management, and emulating the behaviour of their more successful counterparts (Idaho State University, n.d; Cornell University, 2015; Berkeley Student Learning Center, 2015). Parker, Summerfeldt, Hogan and Majeski (2004), in their study on the transition of students from high school to university in the United States, found a strong positive correlation between academic achievement and several facets of emotional intelligence which resonates with other studies. Others have found the same (Downey, Mountstephen, Lloyd, Hansen, & Stough, 2008; Parker, Bond, Wood, Eastabrook, & Taylor, 2006; Bond, & Manser, 2009). Thus, it has been found that the development of EI may offer students significant opportunities to improve scholastic performance and emotional competencies. The reasons for which include increased self-awareness of strengths and weaknesses, better ability to apply lessons learned, development of better connections with other students, and a better ability to develop appropriate learning strategies (Parker *et al.*, 2006). Continuing to this line of research, this current study will examine emotional intelligence as a factor contributing to students' learning strategies that may lead to academic success in students among students in Thailand.

Another non-academic factor relevant to academic success is social intelligence. Gardner (2011), in creating his theory of Multiple Intelligences, was among the first to assign importance to social skills with respect to academic achievement.

Basically, social intelligence is the ability to get along with others. Social intelligence includes an awareness of situations and the social dynamics governing them, and an understanding of interaction styles and strategies helping a person achieve his or her objectives when dealing with others. This understanding involves self-insight and a consciousness of personal perceptions and reaction patterns (Albrecht, 2015). Social intelligence helps students fit in with their peers. Students who are socially savvy and effective, have a high degree of social awareness, or are good at processing social intelligence are likely to become visible and popular in the peer group (Meijs, Cillessen, Scholte, Segers, & Spiikerman, 2010). Thus, students who are socially intelligent are likely to be well socialized and this may help to develop their EI.

Albrecht (2015) recast Gardner's theory into a simpler model, which included interacting with others as a key component of success and noted that social intelligence could be measured and developed with proper training. Interpersonal competence is a key component of social intelligence. Interpersonal competence can be simply defined as using appropriate behaviours when building and maintaining relationships (Bates, Luster, & Vandenbelt, 2003; Buhrmester, 1990). Research has shown that socially competent students have a better chance of developing relationships with faculty and peers, which facilitates a smooth negotiation of their academic studies. Interpersonal competence appears to be correlated with academic success of which dropout risk is a key negative indicator. Thus, the less socially competent a student is the more likely that student is to fail academically and leave the university entirely. A student with less social intelligence has trouble fitting in

with his/her peers, has more trouble relating to others, and has more trouble adapting to college life, particularly in the first few semesters. Thus, these students feel they cannot fit in and cannot adapt to college life and these behaviours may also reflect their inability to strategize their learning behaviour (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011). Continuing along this line of research, this current study will examine social intelligence as a factor contributing to students' learning strategies among students in Thailand.

Both emotional intelligence and social intelligence are related to the development of good learning behaviours. Generally, the more developed emotional and social intelligence are, the better the learning behaviours of the students become. Learning behaviour is connected with practices such as: time management, main ideas selection, proper use study aids, self-monitoring and test taking strategies as well as attitude, motivation and anxiety (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011). Both Gardner (2011) and Albrecht (2015) believed that emotional intelligence and social intelligence could be developed with proper training and practice through an appropriate strategic learning behaviours, which in turn, lead to academic success.

Finally, another critical non-academic factor related to academic success is socio-economic background. Chuasakul (2011) reported that the socio-economic background of the family was related directly to academic performance. Brinkerhoff (2009) asserted that the main reason for a student to leave the university was a lack of funds. Thus, this finding revealed that students often leave school not because

they are necessarily lazy or uninterested, but because they need money to survive. Their research discovered that sixty per cent of college dropouts had received no financial support from their families while more than sixty per cent of students who graduated received financial aid from parents. Additionally, seventy per cent of dropouts had received no scholarships or loans while sixty per cent of graduates had. Thus, money, which is a critical part of students' socio-economic background, is a significant factor with respect to enrolment and the non-completion or dropout risk.

In Thailand, income disparity is a particular problem as it is an access to financial resources. Across the entire country, the richest 20% of households account for more than half of total household incomes, and the Gini Index of household income (a measure of income inequality) at around 0.51 is among the highest in Southeast Asia. In contrast, the neighboring countries such as Indonesia, Malaysia, and Vietnam have Gini Indexes below 0.40 (Bird, Hattel, Sasaki, & Attapich, 2011). Income disparity not only leads to reduced educational opportunities for the poor, but also impacts society at large because an increased educational level is associated with increased incomes and participation in society at large (Fofack & Zeufack, 1999). Thus, students from poor family background may not be able to acquire positive learning behaviours as their parents may be unable to instill these behaviours in their children.

Hodkinson and Bloomer (2001) argued that the causes of academic failure could be explained in the context of an individual's learning career, which involves a complex combination of social and economic factors, and individual preferences and beliefs.

Researchers found that learning strategies are related to academic performance and persistence, and that these effects remain even after controlling for the influence of background variables such as age (Vanthournot, Gijbels, Coertines, Donche, & Van Petegem, 2012).

Thus, the reasons for failure are several. Those students who come from households with less income find it difficult to continue enrollment because they run out of funds. Those students coming from less educated households have fewer financial resources and examples of success provided by parents. Lastly, those students who come from cultures that do not value higher education feel cultural pressures to leave school early (Lopez & Louis 2009; Matthews, 2015; Lee *et al*, 2015; Wursten & Jacobs, n.d.).

Because of the relevance of demographic factors on educational achievement, this current study will include socio-economic factors including income, family status, and educational attainment of parents, among others. All these factors have been found to be related to academic performance.

Several studies carried out in Thailand have examined the causes of lower performance among students at the tertiary level (Kanyanamit, 1987; Chuasakul, 2011; Suwanpakdee, 1998). Most findings of these studies have included demographic factors (Kanyanamit, 1987), teacher factors (Suwanpakdee, 1998), the education system (Abdulzakur Binzafiie, 2009) and emotional intelligence. However, none of these studies have extensively looked at the role of emotional or



social intelligence as root causes of academic failure. Determining the reasons for this failure in the context of Thailand is critical to reduce the high drop out rate, to provide an educated populace to fuel a knowledge-age economy, and to produce equity in a nation with wide social and economic divisions. Understanding the pathway for improving the system, offers policy makers and educators, the opportunity to help those who need to be helped. Thus, this current study seeks to fill this research gap and offer potential solutions to those concerned.

### **1.3 Objectives of the Study**

The objectives of this study are to: 1) examine the level of students' emotional intelligence, social intelligence and strategic learning behaviour among students and 2) whether emotional intelligence and social intelligence play a significant role in their strategic learning behaviour. 3) examine if demographic factors affect the relationship between emotional intelligence and social intelligence play a significant role in their strategic learning behaviour.

### **1.4 Research Questions**

1.4.1 What is the level of emotional intelligence, social intelligence and strategic learning behaviour among SKRU students?

1.4.2 Are there any relationships between emotional intelligence, social intelligence and strategic learning behaviour?

- i. Are there any relationships between emotional intelligence and strategic learning behaviour?

- ii. Are there any relationships between social intelligence and strategic learning behaviour?

1.4.3 Does demographic factors affect the relationship between emotional intelligence, social intelligence and strategic learning behaviour?

## 1.5 Research Hypotheses

H1: There is significant relationship between social intelligence, emotional intelligence and strategic learning behaviour.

H1a: A relationship exists between emotional intelligence and strategic learning behaviour.

H1b: A relationship exists between social intelligence and strategic learning behaviour.

H2: There is significant different in students emotional intelligence, social intelligence and strategic learning behaviour according to their demographic factors.

H2a: Students demographic factors significantly influence their emotional intelligence.

H2b: Students demographic factors significantly influence their social intelligence.

H2c: Students demographic factors significantly influence their strategic learning behaviour.

## **1.6 Significance of the Study**

This study refers to several learning theories and also focuses on practical interventions that might improve students' strategic learning behaviour, which is an indicator of the academic success of a student. From a practical perspective, this study is important for the administrators, lecturers and students at Songkhla Rajabhat University as well as administrators, lecturers, and students across the nation.

The Thailand Kasikornthi Research Center (2012) found that the development of education is important for the continuing development of the ASEAN Community (ASEAN Community, 2015). The ten member states of the ASEAN obtain benefits from better education because education is a key in developing the population and creating a modern economy. As a result, courses and programs must be developed to produce qualified personnel and the necessary skills and knowledge in the ASEAN and more specifically in Thailand.

### **1.6.1 Administrators**

According to the National Education Act (1999) of Thailand, educational institution administrators must have far-reaching vision, commitment to education and establish a high-quality educational system. Moreover, administrators should collaborate and coordinate activities with all interested parties to operate academic activities more effectively.

Songkhla Rajabhat University is the oldest higher education institution in southern Thailand. The institution has developed steadily since changing from a teacher's

college to the present-day university. Songkhla Rajabhat University students will gain benefits if educational institution administrators can be made aware of their important roles, understand the supporting roles of management, and perform their roles consistently (Songkhla Rajabhat University Academic Report, 2011). Therefore, the findings of this study will be a guide for administrators to follow to ensure the well being of students and improve their learning strategy behaviours while studying at this university as well as other universities in Thailand. In no small measure, the tertiary education system must ensure students are well equipped with the necessary social and emotional skills to ensure their sustainability during their study years at the university as the country needs trained and skilled workers to develop a modern economy.

This current research is one way for the administration to obtain data relating to developing more efficient learning strategies for the students. By carrying out the recommendations developed in this research, the leadership of Songkhla Rajabhat University as well as other universities in southern Thailand can use the results of this study to make informed decisions with respect to the development of the students. Doing so will bring the research results into action in a systematic way and all units concern with students development will be involved in the problem-solving processes. Thus, the findings of this study will contribute vital facts with regard to students' social and emotional intelligence and to what extent these influences their strategic learning behaviours. The study will further suggest a pathway to improve strategic learning behaviour among university students in Thailand.

### **1.6.2 Lecturers**

Lecturers are a key element for success in education. As articulated in The National Education Act of 1999 one primary duty of a lecturer is to help students to learn well and a second is that a lecturer must use research as part of the learning process.

To teach effectively, lecturers must innovate continuously in order to meet the ever-changing needs of today's world. Research is one way in which this can be achieved as it reveals classroom problems and can offer solutions, improvements and developments. In this way, lecturers can improve both teaching and learning. Thus, the findings of this study will help lecturers identify the social and emotional problems faced by their students during their study years. In addition, lecturers also discover the type of learning strategies that their students have been using. All these information will be an eye opener for the lecturers on the current issues faced by their students and this hopefully will encourage the lecturers to take measures to help the students to overcome these issues.

### **1.6.3 Students**

Students are the most important stakeholders in the education system. There are benefits that may be derived from this study for students at the university who may be able to adjust their learning behaviours through improved strategies and tactics and consequently improve their chances of completing their study. Successful completion will impact their lives positively in general and in work in the future. This finding will reveal the issues that university students face so that they will be aware of the obstacles they are facing and this will help them to improve their social and emotional skills as well as their learning strategies.

#### **1.6.4 Body of Knowledge**

The finding of this study will add to the existing body of knowledge on emotional intelligence and social intelligence as they are found to be related to successful academic. Not many studies on these aspects have been studied among university students except in Pakistan (Fatima, Shah, & Kiani, 2011; Javed & Nasreen, 2014) and in Thailand (Khamkhien, 2010; Suntornpithug, 1986). But these studies focus only on the relationship between emotional intelligence and academic achievement. The inclusion of social intelligence with emotional intelligence as associated with successful learning strategies will push the boundaries of knowledge on Thai educational system. The findings will reveal factors having impacts on students' learning, social, and emotional lives.

#### **1.7 Limitations**

The study is based upon the following limitations. The population of the study are university students in southern Thailand; from six provinces. However, the sampling is focused on one university - Songkhla Rajabhat University, as this university has students coming from all the six provinces. In addition, this university faces a high rate of students drop out. The respondents are only first-year students of 2013 session 2. They comprised students from the faculty of Education, Humanities and the Social Science, Science and Technology, Management Science, Agricultural Technology, Arts, and Industrial Technology.

The study focused only on first-year students because various studies have shown that the transition from the familiar high school and home and hearth to the

university is difficult and greatly impacts a student's sense of well-being (College, 2015; Venesiz & Jaeger, 2013; Conley, 2007; Weinstein, 2011). They are away from home, need to adjust to a new life style and need to socialize and make new friends; all these combine to create a new life experience for most first-year students. Because of these drastic life changes, these students are more suitable as respondents for this study compared to those in later semesters who may have already overcome earlier psychological adjustments.

Lastly, Songkla Rajabhat University is currently facing a large problem with respect to student failure as reflected in the large student dropout rate, and, therefore, it is appropriate that this study focus on identifying the contributing factors that will help the university to develop new and more effective-intervention programs for new students.



## **1.8 Operational Definitions**

### **1.8.1 Demographic Factors**

Demographic factors provide background information for an individual's life. Demographic factors in this research include: age, gender, GPA, financial support, student's status in family, parents' marital status, father's occupation, mother's occupation, family monthly income, father's education and mother's education.

**Gender:** This refers to male or female students.

**Age:** The age of students who responded to the questionnaire. The ages of the students ranged from 18 to 23. For the purpose of this study, age is divided into three groups - 18-20, 21-22, and above 22 years.

**GPA:** GPA means grade point average. Songkhla Rajabhat University based its GPA on a 4-point scale with 0 representing the lowest value on the scale and 4.0 represent the highest on the scale. With respect to the students, these were the grade point averages achieved in the previous semester. In this study, GPA is divided into three levels: 1.00-2.50, 2.51-3.00, and 3.01-3.87.

**Financial support:** This refers to tuition fees, books and learning materials. Typically, are funds are derived from three sources: parents, the Education Loan Fund and other funds.

**Student's status in family:** This refers to the status of the student with respect to the family such as living with parents, living with father, living with mother, living with relatives, living in student hostel and others. In this study, status covers two groups: 1) living with parents (living with both parents, living with father or mother), and 2) living with others (living with relatives, living in a student hostel and others).

**Parents' marital status:** This refers to the parents' status including whether they are living together, separate, divorce, father deceased, or mother deceased. In this study, parents' marital status is divided into two groups. The first group is both parents living together and the second group is parents separated (separate, divorced, father deceased, mother deceased).



**Father's occupation:** The current principal occupation of the student's father such as government servant, state enterprise employee, company's employee, personal business owner, agriculturist, daily employee, house worker and others.

**Mother's occupation:** The current principal occupation of the student's mother such as government servant, state enterprise employee, company's employee, personal business owner, agriculturist, daily employee, house worker and others.

**Family monthly income:** The total combined income earned by the father and/or mother earned in a typical month.

**Father's education:** The highest educational level attained by the student's father including lower than primary, primary, secondary, lower vocational, higher vocational, junior degree, bachelor's degree and post-graduate degree.

**Mother's education:** The highest educational level attained by the student's mother in her study such as lower than primary, primary, secondary, lower vocational, higher vocational, junior degree, bachelor's degree and post-graduate degree.

### **1.8.2 Emotional Intelligence**

Emotional intelligence is the ability of students to be patient and wait for a commitment to be consciously accomplished. It involves understanding how others deal with conflicts with respect to their own emotions and having a good relationship with the people around them. Emotional intelligence in this study refers to five factors: Self-awareness, Self-regulation, Motivation, Empathy and Social Skills (Goleman, 1998; Phatthanaphong, 2007).

**Self-awareness:** Self-awareness is the ability of students to recognize their own feelings and emotions, know the cause of these emotions, express their own feelings, assess their situation, know about their strengths and weaknesses, have self-confidence in their abilities and evaluate themselves (Goleman, 1998; Phatthanaphong, 2007).

**Self-regulation:** Self-regulation is the ability of students to manage their own emotions, control their inner feelings, deal with their state of mind, adapt to changes and have an open mind towards new situations knowledge and happiness (Goleman, 1998; Phatthanaphong, 2007).

**Motivation:** Motivation is the ability of students to move forward and strive to achieve a goal. Emotional support from parents and peers assists in a person's ability to do better and achieve his or her goals and overcome barriers that he or she may encounter (Goleman, 1998; Phatthanaphong, 2007).

**Empathy:** Empathy is the ability of students to recognize the needs and feelings of others, be interested in the feelings of others and respond to the needs of others (Goleman, 1998; Phatthanaphong, 2007).

**Social-skills:** Social skills is the ability of students to build relationships with others so as to achieve change in a good way, to persuade people to agree on what is beneficial to the them, to agree to work with others and make people around them happy (Goleman, 1998; Phatthanaphong, 2007).

### **1.8.3 Social Intelligence**

In this study, social intelligence refers to the student's ability to live with others in a society. A socially intelligent student understands the needs of society. He/she can adapt his/her behaviour or demeanour in accordance with the conditions of social efficiency. The student knows how to build good relationships with others in society and can live happily within that society. Social Intelligence is divided into two dimensions: Social Awareness and Social Facility (Goleman, 2006; Tongsuebsai, 2009).

**1.8.3.1 Social Awareness:** Social awareness refers to the ability of students to recognize emotions and feelings and understand situations that occur when shared with others in a society. There are four dimensions within Social Awareness: Primal Empathy, Attunement, Empathic Accuracy and Social Cognition (Goleman, 2006; Tongsuebsai, 2009).

**Primal empathy** is the recognition of the emotions and feelings of others in the society as perceived by a person's instincts (Goleman, 2006; Tongsuebsai, 2009).

**Attunement** is the ability of an individual to listen carefully to what others have to say as well as to bond with others in such a way as to understand others' emotions, feelings and needs (Goleman, 2006; Tongsuebsai, 2009).

**Empathic accuracy** refers to accurately understanding the thinking, emotions, needs and feelings of other people (Goleman, 2006; Tongsuebsai, 2009).

**Social cognition** refers to the ability for the student to know about the society around. Social cognition affects a student's behaviour towards the society and this will lead the student to adapt well to the norm of the society (Goleman, 2006; Tongsuebsai, 2009).

**1.8.3.2 Social Facility:** Social facility refers to when students interact appropriately, effectively and happily with others in the society. Social facility involves four dimensions, Synchrony, Self Presentation, Influence and Concern (Goleman, 2006; Tongsuebsai, 2009).

**Synchrony** is the ability to capture and understand by observing the moods of another person as expressed by that person. A student is able to understand the other person's behaviour and know how the other person feels from the behaviour he/she displays (Goleman, 2006; Tongsuebsai, 2009).

**Self-Presentation** is the ability of a student through emotional expression to demonstrate his/her feelings and let others know how he/she feels. In particular, emotional control is needed to fit each situation (Goleman, 2006; Tongsuebsai, 2009).

**Influence** is the ability to direct the behaviour of others toward a certain perception of a situation at a particular time. An individual can attract the people around him/her to follow the behaviour he/she wants (Goleman, 2006; Tongsuebsai, 2009).

**Concern** is the ability to respect others or think of others and to know how to help others when they are faced with problems (Goleman, 2006; Tongsuebsai, 2009).

### 1.8.4 Strategic Learning Behaviour

In this study, strategic learning behaviour is defined as how a student learns overtly (openly) or covertly (within one's mind which cannot be observed by others). Overt behaviour has seven factors which are: time management, concentration, information processing, selecting main ideas, study aids, self testing and test strategies. There are three factors involved in determining covert behaviour. They are attitude, motivation and anxiety (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

#### 1.8.4.1 Covert Behaviour

**Attitude** refers to the self-motivation and desire to succeed. A low score indicates the student needs to learn how to set goals (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

**Motivation** refers to how well a student applies himself/herself to study and has a willingness to succeed. A low score indicates the need to learn how to set goals (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

**Anxiety** refers to the level of worry a student has regarding his/her study. A low score indicates the student needs to learn coping techniques (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

#### 1.8.4.2 Overt Behaviour

**Time management** refers to the ability of a student to create a schedule and manage his/her workload. A low score indicates the need to learn how to create a timetable and deal with distractions and other goals (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

**Concentration** is the student's ability to focus on academic tasks. A low score indicates a student should learn techniques to focus attention and maintain concentration (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

**Information processing** is the ability of a student to activate his/her prior knowledge of a topic in order to make connections between old and new information and then to organize the new information meaningfully. A low score indicates a student should focus on learning ways of organizing what he/she is learning (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

**Selecting main idea** refers to the student's ability to discern important information requiring further attention. A low score indicates the need to learn ways of identifying main ideas from supporting ones (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

**Study aids** are the student's ability to access and use materials (headings, sub-heading within a text) and support structures (study group). A low score indicates the need to learn what is available and how resources can be used (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

**Self-testing** is the student's ability to review material and assess what has been understood from learning and what needs further attention. A low score indicates the student should learn strategies to review and monitor his/her understanding of the material (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

**Test strategies** refer to the student's ability to prepare for and take examination. A low score indicates the need to learn test preparation strategies as well as test taking strategies (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011).

### **1.9 Summary**

The main purpose of Songkhal Rajabhat University is to graduate students who are able to help develop the country according to the directives of the Thai National Education Act (1999). Many factors can either help or hinder students in the successful completion of their studies. Among the many contributing factors that may influence students' academic performance are emotional and social intelligence. This study examined the interactions between emotional intelligence, social intelligence and learning behaviours as evinced by learning strategies. It is hoped that these variables can be used to modify the learning strategies of the students at Songkhal Rajabhat University and to provide guidelines for students to improve their chances of studying successfully and therefore to improve the institute and the country as a whole.

Even though the respondents are mainly from one particular university the findings in this study can still serve as guide to others universities within and outside Thailand. Students who are in their first-year experience similar situations, no matter where they are located, when away from home for the first time. They meet new peers, live under different social and cultural environments and need to adjust quickly and effectively to campus life. Therefore, the findings can help colleges and universities administrators to better understand the social and emotional experiences

of new students on campus and to help them to prepare the living and life of these students for the duration of their study.

Although the main beneficiaries of this study are Songkhla Rajabhat University administrators, lecturers and students, the results may also help other Thai universities to develop support systems to help students achieve academic success and thus help the nation at large, which needs highly trained workers for the development of its economy.





## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This study first gauges the present levels of emotional and social intelligence and learning strategies among second semester first-year students at Songkhla Rajabhat University and then examines whether demographic factors, emotional and social intelligence play a significant role in students' learning strategies. This chapter highlights the literature on demographics, emotional intelligence, social intelligence and learning strategies.

#### **2.2 The Concept of Emotional Intelligence**

Emotional intelligence has been defined in various ways and the concept has been derived from multiple sources. Emotional intelligence has its roots in the notion of social intelligence (Kelly, 1955; Thorndike, 1920) and non-intellectual intelligence (Wechsler, 1940), intrapersonal and interpersonal intelligence, and Gardner's (1983) sub-categories of personal intelligence, including personal and intrapersonal intelligence (Colston, 2008, pp. 20-21).

Three principal theorists have contributed widely accepted definitions of emotional intelligence. Mayer and Salovey (1990, 1997) offered the first formal definition of EI, which they later refined in 1997. They defined emotional intelligence as the "abilities to perceive emotion, to access and generate emotions so as to assist thoughts, to understand emotions and emotional knowledge, and to reflectively

regulate emotions so as to promote emotional and intellectual growth” (Mayer & Salovey, 1997, p. 5; Mayer, Caruso, & Salovey, 1999; Mayer, Salovey, & Caruso, 2000; Mayer, Salovey, & Caruso, 2004). This definition suggested that ability in emotional perception, access and generation leads to changes in thoughts and results in intelligence and vice versa; in other words, regulated emotion helps instils intellectual growth and intelligence generates emotional growth.

Mayer and Salovey’s model focuses on the cognitive making a connection between emotions and reasoning. EI, from this perspective, is a set of mental abilities, which assists the processing of emotion-related information, constituting general intelligence and logical thinking. These mental abilities are hierarchically organized from the simple to the more complicated processes. They are thought to develop as time passes as people have more life experiences and become more mature. These abilities do not depend on the person’s talents, traits or modes of behaviour (Mayer & Salovey, 1993). The four main skills in Mayer and Salovey’s model include:

1. The ability to perceive and express emotions;
2. The ability to assimilate emotions in thought;
3. The ability to understand and analyses emotions; and
4. The ability to reflect and then regulate emotions.

A person’s ability to perceive and express emotion is the state of being able to understand his/her and others’ feelings, thoughts and physical states and express them as emotions. Such an expression is essential, especially when a person is living

in a society in which she/he must finely adjust herself/himself to the environment and interpret social cues that are sometimes not readily noticeable.

The ability to encompass emotion in thought, which is the second skill, takes another step forward after emotion has been recognized. A person possessing this ability will take emotion into account during his/her thinking processes such as making decision, solving problems and making judgment.

The third skill is the ability to understand and analyse the effects that emotional changes have on relationships both immediately and later on and within different contexts. Without this ability, people may be unable to understand their emotions and how they affect the relationships they have with others. This failure, in turn, can make it problematic to relate to others and establish solid ties.

The ability to reflect and then regulate emotion is the last and subtlest skill, as a person needs to be able to reflect on what has happened and find a way to control the situation so as to make that situation better. The ability to reflect can help delay a person's immediate reaction to his/her feelings and thus make time to harness the expression of emotions in a more constructive way. This process is seen to be neurobiological, and practice can lead to intellectual and emotional growth.

The Mayer *et al.* (2000) model is based on the following:

1. Responses to mental problems can be both correct and incorrect;
2. Abilities in the four skills are in concordance with other mental ability measurements; and;
3. The ability grows as someone ages.

People with good EI are likely to exhibit positive behaviour. Those with a high level of EI are ready to take in new ideas and are able to express their own feelings while at the same time incorporating the views of others. They are able to reshape and reroute emotions and have the tendency to develop expertise and harness their emotions for positive outcomes in their chosen fields, especially with respect to exhibiting leadership (Mayer *et al.*, 2000).

Goleman was responsible for popularizing the Theory of Emotional Intelligence, contextualizing the theory within the field of leadership. He offered emotional intelligence as both an alternative and adjunct to IQ as a predictor of life success. Goleman's (1998) Theory of Emotional Intelligence has been refined and restated over time, which has ultimately resulted in the simplification of the theory and its being incorporated into the context of leadership and leadership styles. A clearer distinction is how EI is related to an individual, and two domains were delineated from these categories: personal competencies and social competencies.

The first component of the personal competence domain is self-awareness, which determines how someone recognizes his/her emotions and the effects of those emotions. Self-awareness is divided into three areas: emotional awareness (recognizing one's emotions and its effects), accurate self-assessment (knowing what one's strengths and limits are), and self-confidence (having a strong sense of one's own value and capabilities). Next is self-regulation, which is the management of internal states, impulses and resources. Self-regulation can be further subdivided into five areas: self-control (monitoring disruptive emotions and impulses),

trustworthiness (sustaining honesty and integrity standard), consciousness (being responsible for one's own performance), adaptability (being flexible in coming to terms with changes), and innovation (feeling easy with new ideas, approaches and information). The third component is motivation — tendencies influenced by emotion that help navigate or facilitate goal achievement. Motivation can be further subdivided into four areas: achievement driven or perseverance in attempts to reach goals; commitment or keeping with group or organization goals; initiative or the readiness to act as opportunities appear and; optimism or unfailing attempts to pursue goals in spite of obstacles.

The fourth and fifth components of Emotional Intelligence are empathy and social competence, which are concerned with how someone deals with relationships. Empathy is the perceptiveness of the feelings, needs and concerns of others and can be further divided into: 1) understanding others — awareness of others' feeling and being in earnest about what they strongly feel 2) developing others — knowing what others' needs are and support their abilities, 3) service orientation — foreseeing, recognizing and serving customers' needs, 4) leveraging diversity — opening opportunities via different types of people and 5) political awareness — understanding what a group's currently feels and hierarchical relationships. Social skills can be divided into eight areas: 1) influence — using effective tactics to persuade, 2) communication — listening and responding, 3) conflict management — managing disagreements by negotiation, 4) leadership — inspiring and guiding others either individuals or groups, 5) change catalyst — instilling/managing change, 6) building bonds — fostering instrumental relationships, 7) collaboration and

cooperation — joint working with others for goals which are shared, and 8) team capabilities — putting drive into the group's pursuit of shared goals (Goleman, 1998).

Before emotional intelligence became mainstream, the intelligence quotient was used as the prevailing predictor for success. However, emotional intelligence has now become another predictor of success that can be used alongside a person's IQ. Using EI can do a more precise job of reflecting how people behave and are able to succeed in their lives (Goleman, 2006).

Bar-on's definition of emotional intelligence is "an array of non-cognitive capabilities, competencies and skills that influence one's ability to succeed in coping with environmental demands and pressures" (Bar-On, 1997, p. 14). His model includes five dimensions of emotional and social intelligence including: Intrapersonal EI—skills (competencies, abilities and capabilities), Interpersonal EI—skills (functioning between individuals and groups), Adaptability EI (how well one can adapt and cope with environmental demands via problems analysis and handling), Stress Management EI (how well one can manage stress), and General Mood EI (how well someone can appreciate and enjoy life with a positive perspective). His model included fifteen non-cognitive variables, comparable to personality factors.

Both Goleman and Bar-on asserted that, unlike IQ, emotional intelligence could be developed through training. This proved deeply attractive to people who were presented with the possibility of advancement in life through personal development as opposed to the inherent talent of IQ alone. The belief is that training and development programs can help change these personality skills over time, and, as a result, his model does not indicate performance but potential performance.

The original three principle models of EI have a common characteristic in their effort to make sense of and measure the genetic inheritances and abilities that play a part in enabling a person to understand and regulate his/her and others' emotions (Goleman, 2001). A closer examination, nevertheless, reveals that the models actually merge into two broad perspectives making the perception of EI different.

Bar-On and Goleman's theories are similar in many ways. They both view EI as a mixed type of intelligence that includes cognitive and personality factors. The difference is that while Bar-On's emphasized how the factors influence and affect general well-being, Goleman emphasized the workplace context. Furthermore, Bar-On's model encompasses more than factors than both Goleman's or Salovey and Mayer's. Bar-on's model incorporates personality factors associated with life success and includes emotional intelligence and social intelligence.

Mayer and Salovey believed that EI is more about cognitive abilities with a narrow range of abilities that are possible to be measured by components based on performance. This approach is known as "Ability Model". Bar-On and Goleman

viewed EI as being more trait-focused, integrating self-perceived abilities and personality characteristics. This resulted in the perspective being called the socio-emotional approach or Mixed Model as Mayer *et al.* (2000) described.

As explained by Goleman (1998), the level of emotional intelligence is not fixed genetically, nor does it develop only in early childhood. Emotional intelligence seems to be learned and continues to develop as someone goes through life and learn from his/her experiences. Thus, emotional competence can increase over time.

In the study conducted by Saat, Fauzi, Ch'ng, Chua, Kho, Kimmie, and Wong (2014), it was found that there is high level of emotional intelligence among first-year Biomedical Science Programme students in Kuala Lumpur as compared to that of second and third year students. Similar findings were also found in Panjiang's study (2013) where university students' emotional quotients were also high.

Furthermore, people with average or high emotional intelligence level were also found to have high empathy and thus, will be able to perceive others' feelings as well as understand the situations as though they were on the same emotional level (Mayer *et al.*, 2004; George, 2008; SixSeconds, n.d.). In this case, they could help their peers in solving problems or lead their groups.

According to Tinto (1993), helping people with problems can help entwine "spirituality into their life" and this is "very important" as it could help achieve their "essential personal goals." as first-year college/university students faced numerous new challenges and adjustments. The ability to build new relationships while



modifying existing relationships with family and friends is vital during this transition (Keup & Stolzenberg, 2004).

Similarly, Fariselli, Ghini, and Freedman (2008) found that some parts of emotional intelligence slightly increase with age though some elements of emotional intelligence do not. This suggests that some emotional competencies have to be developed via training. According to Jan, Hyder, and Ruhi (2013), the type of family structure may have an influence on adolescents' emotional intelligence. For instance, children brought up with siblings will learn more in terms of cooperating, caring, and sharing with siblings and these are the elements most needed to develop strong emotional intelligence in later life.

### **2.2.1 Clarifications on Emotional Intelligence and Emotional Quotient**

In his doctoral dissertation (cited in Emmerling & Goleman, 2003), Bar-On's (1988) coined the term "emotional quotient" (EQ). While IQ is concerned with the level of someone's intelligence, EQ is concerned with someone's emotion intelligence, which can be measured and can be developed. To do so, Bar-On developed this EQ-I, which has been shown to be both valid and reliable. Emotional skills were measured using multiple scales from which a standard score was created across five composite and fifteen EQ-I subscales.

Terman developed the first IQ scale in 1916. The IQ scale for classifying IQ scores is the following: over 140 means genius or near genius. 120 - 140 means very superior intelligence, 110 - 119 means superior intelligence, and 90 - 109 means

normal or average intelligence. An EQ score of 130 means the person is significantly above average, a score of 100 means that the person is average, and a score of 85 means that the person is below average. A key difference between the two metrics is that emotional intelligence is believed to be able to be improved if a person receives training while IQ intelligence is believed to be native. Strategies and tactics have been created so that a test taker with a below average score on the EQ can eventually increase he/she level of emotional intelligence.

This current study focuses on Emotional Intelligence and not Intelligence Quotient for several reasons. First, current researchers believe that Intelligence Quotient is one part the multiple intelligences that lead to success in academics and in life. Second, although the Intelligence Quotient may be innate, Emotional Intelligence may be developed through training and support. Third, if adequate support and training are given, students will learn the necessary learning behaviours and strategies to succeed. Fourth, increased student success in tertiary education in Thailand will reduce dropout rates and provide the necessary human capital for developing a knowledge-age economy in Thailand.

### **2.2.2 Which is a Better Predictor of Success in Life: Emotional Intelligence or Intelligence Quotient?**

Though intelligence quotient and emotional intelligence are two separate fields of study dealing with intelligence and emotions, they are often confused with one another (Mayer, 2001). The focus of studies in intelligence is mainly on cognition but the concern of emotions research is whether emotions are the same regardless of

cultural differences or different because of cultural idiosyncrasies. Social psychologists, however, believed that culture is a determining factor (Mayer, 2001). EQ can greatly contribute to an organization's success because EQ cannot only be measured but also developed to achieve organizational outcome objectives. Goleman (1995) and Dulewicz and Higgs (2000) proposed that using IQ and EQ in combination is a better predictor of success in any particular field than either using one measurement alone. That is because, as discussed above and in Chapter 1, IQ is now thought to only be a part of the equation leading to success in school and success in life. Many scholars led by Goleman believed that Emotional Intelligence is a better predictor of success in all avenues of life (Forbes, 2012; Goleman, 1998).

### **2.2.3 Popularization of Emotional Intelligence**

Goleman, whose book *Emotional Intelligence* was published in 1995 and became a bestseller, helped popularize emotional intelligence. The claim he made that emotional intelligence was the better predictor of success than was IQ inspired people with new hope. Life success could be fostered through emotional intelligence, a type of intelligence that could be developed through training and practice (Matthews, Zeidner, & Roberts, 2004). This belief and hope was absolutely contradictory to the message relayed by Herrnstein and Murray's *The Bell Curve* (1996), which pinpointed IQ as the most significant predictor of success. Their book implied that only those few with high cognitive powers would be more successful in life and that IQ could not be developed, but was inherent.

This unyieldingly pessimistic view may have pushed people to eagerly look towards emotional intelligence as something that might help. This means that understanding the emotional intelligence in the context of Thai tertiary education is critical as this may lead to understanding what types of support and training programs should be created and used. In turn, benchmarking the relationships between emotional intelligence and outcomes from training programs should lead to better academic performance.

Cherniss (2000) claimed that emotional and social interactions are essential characteristics of business leadership. This is why 80% of companies in America, not to mention elsewhere, allocate budget for emotional intelligence development, including “greater emotional self-awareness, self-management and empathy as well as social skills” (Cherniss, 2000, p.449). Many believed that an individual's ability to process emotional information and use this information helps the person to navigate the social environment. Navigating the social environment is critical in terms of fitting in and dealing with others, both necessary skills for life success.

#### **2.2.4 The Ability Model and the Mixed Model of Emotional Intelligence**

Exact definitions of emotional intelligence are elusive. However, Mayer and Salovey (1990, 1997), Bar-On (2000) and Goleman (1995, 1998) put forward three of the most accepted definitions. Within these definitions, two distinct models emerge: the Ability Model and the Mixed Model. The former views emotional intelligence as cognitive and skill-based while the latter model takes into account personality traits. Measurement of emotional intelligence is based on each model. The Ability Model

employs performance-based measures in which there is an objectively correct answer.

The Mixed Model, which views EI as a combination of personal characteristics, behaviour and emotional-related competencies (Mayer *et al.*, 2000; Palmer, Monach, Gignac & Stough, 2003), uses a self-report approach in which the focus is on a person's belief about his/her emotional ability, not his/her actual ability (Petrides & Furnham, 2001). Bar-On's EQ-I and Swinburne University Emotional Intelligence Test (SUEIT) (Palmer *et al.*, 2003) are the two most distinctive examples of this model of measurement.

Several scholars have explicated the mixed model. Bar-On (2000) employed skill areas in his Mixed Model including intrapersonal skills, interpersonal skills, stress management, and general mood. Goleman's Mixed Model, however, divided the competencies into personal and social. Personal competencies included knowing emotions when they occur, managing them and motivating oneself by arranging and ordering emotions to facilitate in the quest of a goal. Social competencies on the other hand include knowing others' emotions and handling relationships. This model is measured using the Emotional and Social Competence Inventory (ESCI) for business and the ESCI- U for College students that measures twelve competencies (Goleman, n.d.).

Cooper and Sawaf's (1997) Mixed Model has some factors common to those of Goleman. In their model, four foundations of emotional literacy were posited: 1) being true with self, 2) emotional healthiness, 3) being easy to understand and

interacting with others, and 4) emotional depth which means character and emotional alchemy and involves the awareness of opportunities available to create for the future. Both models emphasized the motivation in achieving goals in which emotions can play a part and the responsibility of someone to recognize and regulate emotions.

On the other hand, the Ability Model explains emotional intelligence as comprising a set of cognitive abilities, which becomes a person's overall intelligence. However, this model does not use hereditary traits as constituting emotional intelligence but accentuates the skills a person's possesses. Mayer and Salovey's Ability Model outlines major areas and skills dealing with perceiving and expressing emotion in oneself and others. These include: the ability to use emotions to affix importance to thinking and help in judgment and memory, the ability to understand and analyse emotion in the relationship context, and the ability to reflect and manage emotion and stay attuned to feelings. Measurement via this model employs performance-based and objective measures such as the Multi-Factor Emotional Intelligence Scale (MEIS) and the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), which comprises emotion-related questions requiring "correct" answers (Palmer et al., 2003). Its main advocates like Goleman (1995), Bar-On (1997), and Cooper and Sawaf (1997) have been refining the model since 1995. Factors like motivation, neurobiology, social operation, cognition, personality and character and disposition were accounted for (Matthews *et al.*, 2004).

When deeply investigated, both the Ability Model and Mixed Models of emotional intelligence deal with the common core of “ability to regulate emotions in oneself and in others” (Goleman, 2001, p.14). Mayer and Saveloy’s Ability Model focused on emotionally related processes and discarded personality elements believing that this would allow the impact of EI on a person’s behaviour to be more examined more succinctly (Salovey, Brackett & Mayer, 2004). Therefore, Goleman’s emotional intelligence which focuses on the individual’s ability to regulate his/her emotions as well as others seemed the best fit for the current study as this study examined the student’s ability to socialize and regulate his/her emotions when handling peers.

### **2.3 Concept of Social Intelligence**

Social intelligence first emerged in the 1920s proposed by Edward Thorndike. It stood alongside the burgeoning field of psychometrics as was seen by early theorists as “an analog to IQ that applied to talent in social life (Goleman, 2006, p.332). Thorndike described social intelligence as interpersonal effectiveness, easily observed in nurseries, playgrounds, factories, barracks and sales rooms, but very difficult to measure within the “formal standardized conditions of the testing laboratory.” Scientists sought to measure differences in social aptitude in similar ways as IQ; however, attempts failed because the measures used cognitive abilities in the assessment. The interest in social intelligence dissipated rapidly in the 1950s after David Wechsler dismissed social intelligence as “general intelligence applied to social situations” (Goleman, 2006, p.332). Various theorists, for example Guilford in the 1960s, Robert Sternberg and Howard Gardner, proposed theories that included

elements of social intelligence. However, a cohesive theory that had practical applications in the field of psychology and that clearly distinguished social intelligence from general intelligence remained elusive. Now, neuroscience is playing a part in the mapping of parts of the brain regulating interpersonal dynamics. Social intelligence is experiencing a renaissance because of this and is broadening in its scope to include non-cognitive abilities.

One such theory is by Goleman (2006) where he divided social intelligence into two domains: social awareness and social facility. Goleman explained that social awareness is what we sense about others while social facility is how we use what we sense about others. Social awareness can be further broken down into primal empathy, attunement, empathic accuracy and social cognition. Briefly, primal empathy describes the ability to sense nonverbal signals and to feel with others. Attunement relates to listening and attuning completely with others. Empathic accuracy concerns understanding another's feelings, intentions and thoughts. Social cognition concerns one's knowledge of how the social world works.

The second sub-dimension of social intelligence being social facility can be broken down into synchrony, self-presentation, influence and concern. *Social facility* is the natural carry on from social awareness which allows for one's sense and knowledge of another to be used to develop smooth and effective interactions. *Synchrony* concerns smooth interactions on a nonverbal level. *Self-presentation* concerns effective presentation of self. *Influence* concerns the ability to shape the outcome of social interactions. *Concern* relates to recognizing the needs of others and caring



about these needs and taking appropriate actions to affect this care. *High road abilities* concerning social cognition and *low road functions* concerning nonverbal abilities are mixed together in this model of social intelligence.

As clearly stated by Thorndike and Stein (1937), social intelligence is “the ability to get along well with others and to get them to cooperate with you” (p.275). In addition, they should also be well-adapted to the environment and new situations (Thakur, Sharma, & Pathania, 2013). This is because social intelligence is related to various outcomes such as social adjustment, psychopathology, academic achievement, and work-related success, its existence is crucial for healthy development (Gresham, 2002; Katz, McClellan, Fuller & Walz, 1995; LeCroy, 2002; Masten & Coatsworth, 1998; Obradovic, van Dulmen, Yates, Carlson, & Egeland, 2006; Warnes, Sheridan, Geske, & Warnes, 2005). Burdened by a lack of social intelligence, success in life would be almost impossible (Nagra, 2014), but having high level of social intelligence could lead to a happier life (Aminpoor, 2013).

Leading a successful life in a campus society without social intelligence could be difficult (Saxena & Jain, 2013). Social intelligence may help a student to develop a healthy co-existence with peers. Socially intelligent individual behave tactfully and prosper in life. Social intelligence is useful in solving the problems of social life and helps in tackling various social tasks. Thus, social intelligence is an important developmental aspect of education (Saxena & Jain, 2013) especially for students at the tertiary level.

Teenagers strongly want to belong to a group in order to share both their suffering and their happiness as well as doing activities together (Rochat, 2003; Goffman, 1959; Terry & Hogg, 2000). They tend to model the behaviour of the group members with whom they associate with. If the group they were in, comprised of members with negative behaviour, they would go astray. If they had high level of empathic accuracy, they will be more likely to understand and be understood by group members (Development of adolescents, 2011; Wray-Lake & Syvertsen, 2011). Adapting to common behaviour would eventually result in acceptance from group members. According to Thorndike (1920), social intelligence increases with age and experience of a person.

### **2.3.1 Component of Social Intelligence**

Goleman (2006) in trying to explain the concept of social intelligence has divided it into two; they are social awareness and social facility.

#### **2.3.1.1 Social Awareness**

According to Goleman, social awareness is the proficiency in managing relationships and building networks, and the ability to find common ground and build rapport. Hallmarks of social skills include effectiveness in leading change, persuasiveness, and expertise building and leading teams (Goleman, 1995). In order to explain further on social awareness we need to examine the sub-dimensions within social awareness: primal empathy, attunement, empathetic accuracy, and social cognition.

### **2.3.1.1.1 Primal Empathy**

*Primal empathy* is a low road capacity that concerns the ability to sense the emotions of another from fleeting expressions. According to Goleman (2006), it is entirely nonverbal and largely intuitive while neuroscientists believe that it is activated by mirror neurons. Therefore, the premise of primal empathy is that even though a person may not be talking, he/she will still be leaking emotions and sending signals, which can be rapidly, automatically and spontaneously sensed by those around.

There are two prevalent measure of primary empathy. The first is the Profile of Nonverbal Sensitivity dubbed the PONS, which measures the individual reading of micro expressions. If the individual scores high on the PONS then it is likely that he/she will be rated higher by colleagues in the work place as being more interpersonally sensitive. In general, it was reported that women scored on average 3% higher than men. The second measurement for primal empathy is the “Reading the Mind in The Eye test” designed by Baron-Cohen, Wheelwright and Jolliffe (1997). Those who scored high are judged as having gifted empathy while those scoring poorly may have autism. In any event, empathy appears to improve with age and life experience (Goleman, 2006: p. 85-86).

### **2.3.1.1.2 Attunement**

*Attunement* is essentially focused on attention and alignment with another’s feelings and thoughts while listening to the other. Rather than listening to respond, and to make our own point, we instead listen fully to understand another perspective. It is listening without agenda. The result is a conversation that is created mutually in

response to what the other feels, says and does. *Attunement* is the foundation for genuine rapport. Without it, individuals merely talk at each other intently only on serving their own needs. Listen fully requires the attunement and alignment with the feelings of the other. While it appears to be a natural talent, it can be developed by cultivating the intention to focus attention on the act of listening (Goleman, 2006: p. 86-88).

*Attunement* has been identified in various professional fields as among the top skill of those who were assessed as outstanding in their field. It also involves questioning in order to understand the background situation of a person. This phenomenon can be seen in psychotherapy sessions in which a client felt truly listened to by the therapist. Emotions are aligned and physiological synchrony results as neural circuits are connected and we have the sense of being on the same wavelength as the other (Goleman, 2006: p. 86-88).

#### **2.3.1.1.3 Empathic Accuracy**

*Empathic accuracy* builds on the low road of primal empathy but brings in element of high road ability in that it requires one to explicitly understand what someone feels and thinks. This cognitive process engages the pre-frontal neocortex area of the brain while primal empathy engages an intuitive, nonverbal gut feeling. Empathic accuracy requires a subject to accurately guess the thoughts and feelings of another. William Ickes, a psychologist from the University of Texas believes it is the quintessential expertise making up social intelligence, distinguishing the highest performers across professional fields. Empathic accuracy is not just observed in

professional contexts, but can be observed in successful marriages in which a partner can feel the discontent of the other and also pinpoint the actual source of the discontent. It also can potentially mean the difference between life and death; for example when confronted by a mugger, or in a war situation (Goleman, 2006: p. 88-90).

One experiment to measure empathic accuracy involves two people in a waiting room. They were asked to wait while a preparation for an experiment was made. Secretly, they were observed chatting with one another. After approximately six minutes, they were then taken to separate rooms and shown the video of the conversation in the waiting room and asked to write down what their thoughts and feelings were at each point and what they think the other person was thinking and feeling. A comparison between the two accounts indicates how empathically accurate each subject (Goleman, 2006: p. 88-90).

#### **2.3.1.1.4 Social Cognition**

*Social cognition* is the final aspect of social awareness and concerns knowledge of how the world actually works. Those with an aptitude for social cognition would know how to behave in various social circumstances; for example, at a five star restaurant. They would be adept at decoding a plethora of social signals across multiple contexts in order to make sense of social events. For example, social cognition is involved in solving social dilemmas such as where to seat adversaries at a formal dinner, or how to interpret a person's comment at a dinner party: witty repartee or sarcasm? Smooth interactions require an implicit understanding of

unspoken norms, which can differ between cultures and groups. It is important to note that social cognition incorporates not only the cognitive knowledge of social situations, but also what we do in these situations. In this way, a person who might have knowledge of a social situation but cannot mobilize this knowledge in the form of social facility may be considered socially awkward (Goleman, 2006: p. 90-91).

Thus, all the aspects of social awareness: primal empathy, attunement, empathic accuracy builds on each other and culminates in social cognition. This in turn forms the foundation of social facility: our ability to use what we know of others to facilitate smooth interpersonal interactions. Therefore, social awareness is an important aspect in a student's life as it enables him/her to socialize well with peers and this in turn helps the student to be engaged in group work. It is during these group sessions that a student may learn to strategize his/her learning from peers.

### **2.3.1.2 Social Facility**

The following section examined the sub-dimensions of social facility; synchrony, self-presentation, influence, and concern.

#### **2.3.1.2.1 Synchrony**

The first and most foundational aspect of social facility is synchrony. The neural capacity for synchrony is unconscious and spontaneous, employing low road systems like oscillators and mirror neurons. Synchrony concerns our ability to instantaneously read and 'synch' with nonverbal cues resulting in smooth interactions making connections with others seem comfortable and easy. These

nonverbal clues include gesture, body orientation, and use of touch and eye contact. Read successfully, a person in synch will respond with a nod or smile at just the appropriate time. Failure to read these clues successfully would result in a sense of unease or oddness. Those with poor ability to read and act on these nonverbal clues suffer from dyssemia (Goleman, 2006: p. 91-94); failure to learn to read and respond to nonverbal signals in childhood due to insufficient exposure to a range of emotions as displayed by peers and family.

#### **2.3.1.2.2 Self-Presentation**

*Self-presentation* may be defined as the ability to create an impression of how you are in the perception of the other. This implies the ability to control and mask emotions to achieve social goals. This control gives a person self-confidence in their capacity to navigate social situations. One aspect of self-presentation is charisma. *Charisma* gives a person influence over others through the expression of emotions that ignite a synchronous emotional spectrum in their audience. Charismatic speakers are able to make a conceptual point with just the right mix of emotions which are then taken up and resonated by the recipients. It is important to note that self-presentation operates within the norms of a group, society or culture in that there are constraints around the expression of emotions as to their range and intensity. In this way, for example, it is not appropriate for a woman to cry in a public situation, but perfectly acceptable in private whereas for a man crying is generally deemed less acceptable in either public or private. Similarly, when self-presentation is not back by substance, it is equally ineffective. Take for example, a student who can make

connections and build rapport with peers who do well in their studies but then loses contracts for lack of learning abilities (Goleman, 2006: p. 93-94).

### **2.3.1.2.3 Influence**

*Influence* involves the mitigation of aggression using self-controlled force, tact and social cognition to achieve desired outcomes. Self-control is the ability to recognize and control an aggressive impulse. Tact is closely related to empathy, in which we read a person in order to gauge what response is best and how much force might be necessary to affect the desired outcome. Social cognition is the recognition of the social norms operating within the context. In military and law enforcement contexts, influence means using the least force necessary to assert one's authority to achieve the desired outcome relying on a calm, authoritative and professional manner. In civilian, every day contexts, influence still mitigates aggression but in more subtle ways involving a balance of tact and expressivity. For example, where a person might show high empathic accuracy and state: "I don't turn you on", it may not be prudent to express this, but rather absorb the insight and act on it within the bounds of the operating norms in that context to develop the relationship further or to affect some outcome. In this way expressivity acts in synergy with social cognition and allows us to navigate social interactions with the fewest ruffled feathers as possible (Goleman, 2006: p. 94-96).



#### **2.3.1.2.4 Concern**

*Concern* involves not just the ability to empathise with someone in need, but also to take effective action to improve the situation of others. The wiring of the brain means the greater our capacity for empathy, the greater our desire to do something to help. Conversely, the less concern we are for others, the less likely we will be moved to take action. Within a work context, concerned workers translate into good corporate citizens and the value of cooperation is recognized in order to meet group objectives. Low levels of concern result in antisocial behaviour, connected with those focused solely on self, unconcerned for others and unlikely to help (Goleman, 2006: p. 96-97).

In this way, concern is closely related to compassion. Longitudinal studies suggest that antisocial behaviour may begin in childhood. Researchers assert that encouraging young children to focus on the needs of others may avoid a child turning into an antisocial adult National Collaborating Centre for Mental Health (2010). While a manipulative person may score highly on the other measures of social intelligence, he/she will invariably score poorly with concern, revealing a lack of compassion. Concern is the root of caring professions such as social work and medicine. When it is aligned with high road abilities, the effectiveness of action is enhanced; for example in the case of Bill and Melinda Gates' trust fund, which uses proven business strategies to combat the effects of poverty (Goleman, 2006: p. 96-97).

The social facility sub-dimensions equipped the student with the ability to read and understand others when interacting with peers. This is seen as a vital aspect of socializing as one will be aware when to speak, listen and give opinions. Such abilities will enhance a student's acceptance in a group as he/she is perceived as a person who cares and concern on matters that are currently being discussed. Thus, a student with good social facility plus a high sense of social awareness is perceived as one with high social intelligence. It is therefore possible with this intelligence he/she will be likely to know how to strategize learning; a similar skill needed to acquire a high social intelligence.

### **2.3.2 Measures of Social Intelligence**

The advent of measurement and assessment of social intelligence began in the early twentieth century with attempts to find connections between cognitive function and general human intelligence. However, it was not an easy attempt. Thorndike (1920) was an early critic of such tests, however, in pointing out how difficult it was to pin down social intelligence in formal, standardized tests, he argued that true measures of social intelligence would need to be based on "genuine situations with real persons" (p. 228). Despite these challenges, formal standardized tests were developed.

The first such test was the George Washington 28 University Social Intelligence Test (GWSIT) (Hunt, 1928). This GWSIT was designed specifically to measure social intelligence and was structured around Thorndike's separation of intelligence into abstract, mechanical and social intelligences. The GWSIT paralleled other standardized tests, namely the Stanford-Binet Intelligence Test (Terman, 1916;

Terman & Merrill, 1960) and the Wechsler Adult Intelligence Test (Wechsler, 1958). It was divided into six subtests; the results from all of these subtests were collated, resulting in a total social intelligence score. Interesting when these tests were administered those occupations dealing with people, such as teaching, usually scored well above average. However, critics argued that the validity of these results was questionable as the existence of external sources for comparison of social intelligence was very limited (Kihlstrom & Cantor, 2000; Thorndike & Stein, 1937).

Another important aspect of these early attempts to assess social intelligence was that they were centered around group settings, focusing on relationships and interpersonal interactions (Bales, 1950; Flanders, 1964, 1966; Withall, 1949) example, Chapin (1942) measured specific social intelligence ability: social insight. This ability relates to how well an individual can define a social situation based on the behaviour attributed to other people present. Results show that those with high social insight scores are well represented in civically oriented groups and professions than those with low social insight scores. These measurements seemed to be more suited to the adults working environment rather than students in school.

Two other tests, the Unstructured Dyadic Interaction Paradigm (Ickes, Stinson, Bissonnette, & Garcia, 1990) and The Standard Stimulus Paradigm (Gesn & Ickes, 1999) were designed to measure a person's ability to infer the thoughts and feelings of another person within a short period of interaction however, these tests need to be conducted within a clinical setting (Ickes, 2001). Thus, they were considered inappropriate to be used in this study.

Similarly, a number of tests involving encoding and decoding of individual emotions have utilized facial expressions such as the Communication of Affect Receiving Ability Test (CARAT) (Buck, 1976). This test was shown to reliably measure encoding skills among children and adults, but the nature of the test made it difficult to measure decoding. This proved problematic due to the need to understand and know about adult social situations (Nowicki & Duke, 1994; O'Sullivan, 1982).

Other tests using facial expressions examined cultural differences such as The Facial Affect Scoring Technique (Ekman, Friesen, & Tomkins, 1971) and the Brief Affect Recognition Test (Ekman & Friesen, 1974). Researchers were able to conclude that while the expression of emotion was universal, facial appearance was affected by different cultural expectations within different social situations. Later, facial expression testing has become very sophisticated, taking into account cultural differences, ethnicity, gender and expanding the range of expressions tested. The Japanese and Caucasian Facial Expressions of Emotion (Matsumoto & Ekman, 1988) and later the Japanese and Caucasian Brief Affect Recognition Test (Matsumoto, LeRoux, Wilson-Cohn, Raroque, Kookan, Ekman, & Goh, 2000) were two such tests. Even the core facial muscles involved in the expression of emotions have been mapped and measured using the Facial Action Coding System (Ekman & Friesen, 1978; Ekman, Friesen, & Hager, 2002). Thus, standardized tests investigating social abilities in children were that all the social cues being tested (facial expression, gesture, posture, tone of voice) were measured either discretely or in limited combinations. As such these tests were time consuming as it requires the researcher to identify each respondent's facial expression.

Finally, there is the Social Intelligence Scale developed by Goleman (2006) that examined SI where he divided the scale into 2 components:

- 1) Social awareness: primal empathy, attunement, emphatic accuracy and social cognition
- 2) Social Facility: synchrony, self-presentation, influence and concern

#### **2.4 Concept of Strategic Learning Behaviour**

There were other words that had the same meaning as learning behaviour such as study skill, study techniques, study habits and learning strategies. Learning strategies were defined as the activities, behaviours, thoughts and feelings an individual engaged in when learning (Gettinger & Seibert, 2002; Nist & Holschuh, 2000; Weinstein, Husman, & Dierking, 2000; Weinstein & MacDonald, 1986). It may also include thoughts and behaviours relating to the learning strategies and the considerations relating to the selection of these strategies in different learning contexts (Gettinger & Seibert, 2002; Weinstein & MacDonald, 1986). A key characteristic of learning strategies is that they are conscious and deliberate, necessitate determined application, and they are amenable to modification, that is through teaching (Weinstein *et al.*, 2000; Weinstein & MacDonald, 1986). Examples of learning and study strategies include repetition, elaboration, summarizing, underlining, note-taking, outlining, read-recite-review, low anxiety, positive attitude, concentration, information processing, motivation, selecting main ideas, self-testing, study aids, time management, and test strategies (Flippo, Becker, & Wark, 2000;

McDaniel, Howard, & Einstein, 2009; Nist & Simpson, 1994; Weinstein *et al.*, 2000; Weinstein & Palmer, 2002).

The link between learning strategies and academic achievement was well-established (Fleming, 2002; Gettinger & Seibert, 2002; Turner & Husman, 2008; Weinstein *et al.*, 2000). However, students were rarely taught such strategies (Weinstein *et al.*, 2000) despite evidence that they improve the efficiency and effectiveness of learning (Bugg, DeLosh, & McDaniel, 2008). In consequence, some students completed high school without ever studying effectively (Gettinger & Seibert, 2002) and a significant proportion of college entrants had no knowledge of the various study strategies they might utilize to enhance their prospects of academic success (Turner & Husman, 2008).

The study carried out by Romruen (2006) found that students' learning behaviour was at a moderate level, possibly from the pressure of becoming a freshman. This could be due to the stress they had to face in the new living environment; a different educational system, new teachers and friends and being away from families. In addition, study at the university is much more difficult and requires more attention and learning skills.

As suggested by Saengsi's (1995), the experience and environment where students find themselves could sometimes shape their attitudes and this, in turn, may further affect their academic performance (Loong, 2012). Sirisamphan and Mahakhan (2011) found that students usually stop their reading and recall what they had read

possibly because of feeling afraid of forgetting it while at the same time taking notes to help retained their memory. Self-testing then could further be done by answering the exercise themselves. These abilities according to Sirisamphan and Mahakhan (2011) may facilitate their learning in class and while in class; they may also take notes, which may have facilitated their ability to learn (Sisurak, 1986; Sirisamphan & Mahakhan, 2011).

Sirisamphan and Mahakhan (2011) in their study found that Thai students used various types of study aids such as digesting important information, note taking, prioritizing content, and separating important content from less important content. All these techniques have helped these Thai students gain success in their study. This is because, developing students learning includes students, teachers, and the overall environment besides other factors such as developing effective learning techniques. Thus, using learning aids and developing proper learning behaviour facilitates basic knowledge and this, in turn, develops understanding and critical thinking (Sirisamphan & Mahakhan, 2011; Watthanawanit, 1994).

#### **2.4.1 The Expectancy-value theory**

Eccles, Adler, Futterman, Goff, Kaczala, Meece, and Midgley (1983) proposed an expectancy-value model of achievement performance and choice which attempts to explain why people are focused on the choice of tasks they would like to perform, persevere on the tasks, ensure they are being carried out, and perform on them (Eccles, Wigfield, & Schiefele, 1998). Based on these studies theorists believed that an individual's preference, perseverance, and accomplishment may be influenced by

his/her beliefs on how well he/she can managed the task and also how much he/she believed the value of the task would benefit him/her in doing it (Eccles *et al.*, 1983; Wigfield & Eccles, 1992). Thus, Eccles's expectancy-value theory of achievement motivation may explain the existence of differences between male and female students' learning and study strategies.

#### **2.4.2 Gender Differences in Learning Strategies**

There were studies that examined the role of learning strategies at the college and university levels. Studies on college and university students have shown that there were more women graduating from colleges compared to men (Chamberlin, 2008; Gurian & Stevens, 2005) suggesting that this huge differences could be due to performance (example, drop-out). Further studies found the contributing factors to these differences was that women were more academically engaged than men, which may influence the quality of learning experience during their study years (Kinzie, Gonyea, Kuh, Umbach, Blaich, & Korkmaz, 2007; Sax, 2008). These studies reported that male students spend less time and effort on studying and course work. Thus, these findings seem to lead to the question on whether male and female students have different learning strategies to help them through the course of their college or university years.

To explain this trend Eccles' expectancy-value theory of achievement motivation gave an insight to the learning and study strategies among the gender (Wigfield & Eccles, 1992). According to Eccles students' motivation and learning behaviour is influenced by their expectancies; what they will attain from performing a task and

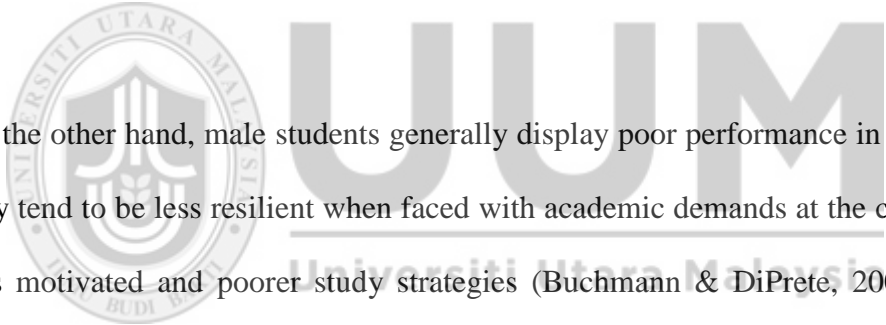


also the values they perceived as important contribution to their current and future life. For example, students have different expectations of achievement in certain courses they take and these expectancies are then translated into their learning behaviour (Greene & DeBacker, 2004). Thus, these expectations and values students bring to class that may result in the differences between the genders.

Eccles further explained that these differences between male and female students' learning and study strategies may also be related to the way they socialize. Men and women experience different role socialization and this may explain why they each perceived values differently. Thus, the differences in values lead to the differences in choice and performance between genders (Greene & DeBacker, 2004).

Other studies reported these differences between male and female learning and study strategies. Mayhew, Vanderlinden and Kim (2010) reported female students as being more inclined towards academic and social aspects of life compared to male students and this may have contributed to boys being less likely to strategize their work towards achievement. This finding supports earlier study by Smith and Miller (2005) who reported that female students did better on the Achieving Strategy subscale indicating that female students seemed to be prepared for examinations as they want to do well and this may have engaged them into the learning behaviour that will lead to their performing well. Similarly, a study was conducted to gauge the study habits and study strategies of freshman at 2 and 4 year colleges and the findings revealed that male students exhibit poorer study habits and read less compared to female students (Noel-Levitz, 2007).

To explain further why female students seemed to be more focused on their study and able to strategize their learning compared to male students, the skills that are embedded in the learning strategies could be the contributing factors to this difference between the genders. Learning strategies refer to two dimensions; covert and overt behaviour (Figure 2.3) and each has different sub-dimensions that reflect the behaviours that are closely linked to doing well in learning. For example, a study found that the female students in America tend to be more motivated academically, more self-discipline when it comes to studying, study consistently, avoid going into procrastination, and organized their study materials better than the male students (Marrs & Sigler, 2012). These are the factors that made them ahead of the male students.



On the other hand, male students generally display poor performance in academic as they tend to be less resilient when faced with academic demands at the college level, less motivated and poorer study strategies (Buchmann & DiPrete, 2006) and this eventually resulted in a higher drop-out rate for male students. Even though male students value academic achievement but how they plan to achieve it that makes the difference. They tend to place less hard work as part of the process of success (Grabill, Lasane, Povitsky, Saxe, Munroe, Phelps, & Straub, 2007). In addition, male students perceived the types of learning strategies and attitudes required to achieve academic success as being less masculine. Thus, these attitudes and perception that surrounds the male students concerning academic life may have put them behind the female students in terms of performance.

Even though most studies have shown male students study less compared to female students at the college level however these studies looked at a few aspects of socialization such as expectations, attitudes and values. Therefore, this study attempts to encompass a wider range of variables that will cover the emotional as well as the social intelligences as they have been identified as contributing factors to an individual's life (Cherniss, 2001).

### **2.4.3 Strategic Learning Behaviour and other Constructs**

There had been extensive research into the connection between strategic learning behaviour and other constructs. This section focused on the findings of research into three of these: academic, non-academic, and internal/affective variables.

The positive association between learning strategies and improved academic outcomes was supported by numerous studies. Broadly, students who used them perform better than those who did not. Thus, students scoring higher in measures of variables relating to awareness and use of learning strategies achieved higher by objective measures (Kleijn, Van der Ploeg, & Topman, 1994; Yip & Chung, 2002), as well as being perceived as being more able (Braten & Olaussen, 1998). Exam performance had also been found to be correlated with being taught learning strategies (Fleming, 2002), and with techniques relating to time management (Dickinson, O'Connell, & Dunn, 1996). Conversely, low scores on scales of learning strategy awareness and use were found to be correlated with lower academic performance (Albaili, 1997), and both higher actual (Proctor, Prevatt, Adams,

Reaser, & Petscher, 2006) and perceived (Deming, Valeri-Gold, & Idleman, 1994) difficulties in college.

Research into their associations with non-academic variables suggested learning strategies were patterned by sex, with women generally scoring higher on measures of study skills than men. On various versions of the LASSI scales, women were found to perform better on attitude (Sizoo, Malhotra, & Bearson., 2003; Grimes, 1995; Schommer-Aikins & Easter, 2008), motivation (Grimes, 1995; Braten & Olaussen, 1998; Sizoo *et al.*, 2003; Kovach & Wilgosh, 1999), time management (Grimes, 1995; Braten & Olaussen, 1998; Sizoo *et al.*, 2003, Schommer-Aikins & Easter, 2008), study aids (Grimes, 1995; Braten & Olaussen, 1998; Sizoo *et al.*, 2003; Kovach & Wilgosh, 1999; Schommer-Aikins & Easter, 2008), self-testing (Grimes, 1995; Kovach & Wilgosh, 1999), and concentration (Sizoo *et al.*, 2003).

Learning strategies also had an impact on students' ability to manage stress. Gadzella, Masten and Stacks (1998) explored the correlations between learning strategies measured by the Inventory of Learning Processes (ILP) and stress reactions measured by the Student-life Stress Inventory. A positive correlation was found between elaborative processing and the effectiveness with which students managed their reactions to stressful situations. Negative correlations were found between deep processing and frustration, and between methodical study and both conflicts and self-imposed stressors. The positive correlation between test anxiety and emotional and physiological stress reactions also suggested an indirect association between learning strategies relating to stress management and academic

outcomes (Gadzella *et al.*, 1998), and associations were also found between learning strategies and success at work (Gettinger & Seibert, 2002).

Studies also reported that internal-affective variables were associated with learning strategies. They were found to be positively correlated with attitudes (Fleming, 2002), self-efficacy (Getttinger & Seibert, 2002), and motivation (Getttinger & Seibert, 2002), although it had also been suggested that motivation levels affect the way students study (Entwistle & McCune, 2004). Meanwhile, study skills were found to be negatively correlated with levels of anxiety and fear of failure (Entwistle & McCune, 2004).

#### **2.4.4 Assessing Strategic Learning Behaviour**

Informal or formal assessment was an essential precursor to teaching learning strategies. Informal methods include collections of student work (portfolios) (Olson, Platt, & Dieker., 2008), relatively unstructured interviews (Sattler, 1998), exhibitions in which students presented what they know in meetings with teachers, parents and other members of the community (The Coalition for Essential Schools, 2006), and short assessments of usually factual information called probes (Olson *et al.*, 2008). Formal methods of assessment included norm-referenced tests, which required uniform test conditions so that students' performance could be compared to the norm group (Weller & Brandhorst, 1991), and criterion-referenced tests, which compared students' performance with their own past performance in order to assess their level of mastery of a subject (Olson *et al.*, 2008).

In part due to the influence of developments in research in education and cognitive psychology, recent methods for assessing learning strategies were more comprehensive and nuanced than previously, incorporating more concepts and complex scales and sub-scales (Entwistle & McCune, 2004). Previous instruments were characterized by low reliability, lack of empirical validation and a focus on how students study rather than identifying skills deficiencies (Weinstein, Zimmermann, & Palmer, 1988).

However, the proliferation of self-report Likert-type measures of learning and study strategies with different purposes and theoretical underpinnings led to both conceptual and terminological confusion. The same terminology was used in different ways across measures, and multiple terms were used to describe the same concepts (Entwistle & McCune, 2004).

Nevertheless, Entwistle and McCune's (2004) summary of six leading measures of learning strategies found that each consisted of three primary concepts, namely deep processing variables, surface processing variables, and achieving-related variables. Similarly, Cano-Garcia and Justicia-Justicia (1994) used factor analyses to show the degree of similarity between multi-dimensional measures of learning strategies. Muis, Winne, and Jamieson-Noel (2007) found considerable conceptual overlap between the Learning and Study Strategies Inventory.

The Motivated Strategies for Learning Questionnaire (MSLQ), and the Meta-cognitive Awareness Inventory (MAI), which they suggested shared conceptions of main ideas/organization, elaboration, self-regulation and evaluation. They nevertheless found a lack of convergent validity between the measures, and concluded that the various scales measure different aspects of self-regulated learning, with LASSI being better at measuring processes of encoding, MSLQ motivation, and MAI meta-cognition (Muis *et al.*, 2007).

Whilst these findings may be used to guide the selection of assessment instruments for different purposes, LASSI showed the highest discriminant validity across the four sub-scales evaluated (Muis *et al.*, 2007). Moreover, LASSI was arguably more practical and versatile than other measures because it went beyond the assessment of how students studied by including strategies which could be taught (Entwistle & McCune, 2004). In this respect and others, it explicitly addressed the perceived deficiencies of previous attempts to assess learning and study strategies. Its scores were generally regarded as robust, and its strategies shown to be positively correlated with academic performance (Weinstein & Palmer, 2002). The current version, LASSI-2, represents an attempt to refine the original in certain key respects, including psychometrics, the normative sample, the broadening of scale concepts, and the inclusion of the latest academic practices and research (Weinstein & Palmer, 2002). Although little research had been conducted using LASSI-2, the versatility and robustness of the original, combined with LASSI-2's various refinements, were the basis for its selection as the focus for the present study.

#### 2.4.5 LASSI-2

Designed in 1987 (Weinstein, Palmer, & Schulte, 1987) after nine years' development at the University of Texas, Austin, the Learning and Study Strategies Inventory (LASSI) is a self-report instrument used to assess students' study and learning strategies and methods (Weinstein & Palmer, 2002). It focused on behaviours, attitudes, motivations and beliefs that were associated with successful retention of learning in an academic setting (Weinstein & Palmer, 2002).

In contrast to previous instruments, the LASSI's range of applications was not confined only to the assessment of students' learning strategies, but included raising students' awareness of their strengths and weaknesses; targeting, planning and measuring the success of remedial interventions; measuring academic success; drawing attention to specific academic material and used as a tool for counselling in various academic settings (Weinstein & Palmer, 2002).

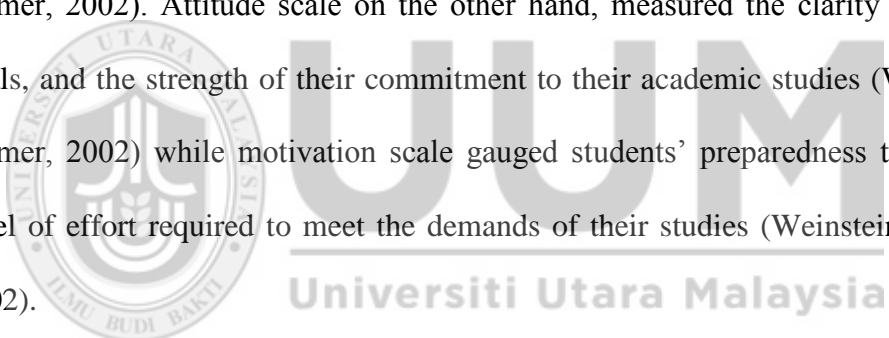
The scales on students' learning and study strategies were measured based on two distinct models: a model of strategic learning (Weinstein, 1994; Cano, 2006), and a general model of learning and cognition (Simon, 1979). The former was the source of three broad categories which were thought to explain successful learning skill, will and self-regulation. Into these, ten further categories, derived from cognitive psychology, were subsumed.

The skill component of the LASSI consisted of information processing, selecting main ideas, and test strategies. Information processing was concerned with how



effectively students used information resources to bridge the divide between what they already knew and what they were trying to learn and remember (Weinstein & Palmer, 2002). The selecting main ideas criterion measured students' ability to identify key points in a lecture or text, and whether they could discriminate between main ideas and supporting information (Weinstein & Palmer, 2002). The test strategies scale assessed the effectiveness of students' preparation and test-taking strategies for a variety of different types of exam (Weinstein & Palmer, 2002).

The Anxiety scale was concerned with how much students worry about their studies, and the extent to which this compromised their ability to concentrate (Weinstein & Palmer, 2002). Attitude scale on the other hand, measured the clarity of students' goals, and the strength of their commitment to their academic studies (Weinstein & Palmer, 2002) while motivation scale gauged students' preparedness to invest the level of effort required to meet the demands of their studies (Weinstein & Palmer, 2002).



Self-regulation scale comprised concentration, self-testing, study aids and time management. Concentration scale measured how easily students were distracted and how well they could focus on their studies (Weinstein & Palmer, 2002). The self-testing scale on the other hand assessed students' ability to review and monitor their level of understanding (Weinstein & Palmer, 2002) while the study aids was concerned with students' use of organizational tools and practice exercises (Weinstein & Palmer, 2002). Lastly, the time management scale measured the effectiveness of students' management of their academic schedules, including

organising their time, planning, and management of conflicting priorities and unforeseen problems (Weinstein & Palmer, 2002).

The LASSI instrument is a popular measurement and has been used to gauge the learning and study skills strategies (Cano, 2006; Deming *et al.*, 1994), as a diagnostic and prescriptive tool to assess study skills of secondary school students with learning disabilities (Benz, Fabian, & Nelson, 1996), and examined the academic achievement of gifted college bound students (Schumacker, Bembry, & Sayler, 1995).

## **2.5 Relationship between Emotional Intelligence and Strategic Learning**

### **Behaviour**

Over the past decade, emotional intelligence has been the subject of research within higher educational settings. Findings have indicated that emotional intelligence is a factor particularly with respect to interpersonal relationships and the need for achievement (Lazarus, 2006; Hybels & Weaver, 2014). Emotional intelligence was more connected with emotional maintenance and development as well as time management skills than student time management (Clarke University, 2014). This is because time management skills were learned either from observing other students or through formal training programs at the university.

Some previous scholars (Ferenandez, Salmouson, & Griffins, 2012; Goleman, 1995) have argued that high level of students' emotional intelligence may lead them to pursue their interests more strongly and also to think more broadly about academic

subjects of interest. According to Svetlana (2007),; high level of emotional intelligence has shown to contribute positively to students' learning processes because having emotional intelligence helped them to fit in and adapt to their new surroundings (Elias, Ubriaco, Reese, Gara, Rothbaum & Haviland, 1992).

Various sub-dimensions of emotional intelligence have different impacts on learning behaviours (Ferrer, 2004; Ribera, Ribera & BrickaLorenz, 2012). The Social skill as a dimension of emotional intelligence has been seen to be significantly related to information processing. However, emotional intelligence does not seem to influence students' information processing in their use of learning strategies as differences exist between information processing for factual material and for emotions. Certainly, emotional state influences one's ability to process information. While emotional intelligence might help speed the process of emotions, emotional intelligence has relatively little impact upon students with respect to factual elements of learning strategies (Dodonova & Dodonov, 2012).

Afolabi, Ogunmwonyi and Okediji's (2009) examined the influence of emotional intelligence and the desire for success (independent variables) on interpersonal relationships and academic achievement (dependent variables) among undergraduate students in Nigeria. The subjects were 110 undergraduates. The results confirmed that interpersonal relationships and the need for success were significantly influenced by emotional intelligence and that emotional intelligence and the need for achievement had a significant impact on academic achievement. Academic

achievement can only be achieved through factors such as learning behaviours; comprising learning strategies and tactics that can be learned.

According to Fraser, Galinsky, Smokowski, Day, Terzian, Rose and Guo (2005), mastery of social-cognitive skills might potentiate a child's ability to navigate social situations and thereby process information in a better manner. For instance, a student who had the ability to manage his/her academic process better were also those who were able to tap upon their prior knowledge of a topic, to make connections between previous and new information, and to organize new information meaningfully.

The social skill impacts students' attitudes towards implementing various learning strategies and tactics. This impact may be because most social skills and behaviours are both implicit and explicit so children have well-developed social skills that help them function within their milieu. This ability to function in turn helps them to work co-operatively in a group, improve their self-confidence in approaching a group of peers, and interact with their peers. Social skills and behaviours are required to enhance the social competence of children in social and interpersonal behaviour, and collaborative learning in peer-group settings, which requires those skills, which has been shown to enhance performance (Lo & Prohaska, 2010).

Although, students' disruptive behaviours can impede the learning progress as many other elements of emotional intelligence seem unrelated to motivation in learning strategies, particularly in the classroom except in the instance of the inability to control conditions, behavioural practices which seems to be more related (Jordan,

2001). The empathy sub-dimension of emotional intelligence has negative effects upon students' anxiety in their learning strategies. This may be because high emotional intelligence helps maintain a person's state of harmony and make him/her more self-confident in dealing with the challenges of living and learning in educational institutions. High emotional intelligence has been shown to contribute positively to a student's learning process because using emotional intelligence helps the student to fit in and adapt to the new surroundings (Goleman, 1995).

As buttressed by previous studies, self-regulation, a sub-dimension of emotional intelligence has been found to have a significant relationship with strategic learning behaviour (Ramdass & Zimmerman, 2011; Terry & Doolittle, 2008; Puspitasari, 2012). This is because the better someone is at managing himself/herself, the better he/she is able to clear his/her head and focus on the task at hand, and this leads to the ability to concentrate on study.

Also, self-regulation as a sub-dimension of emotional intelligence has been identified to have little or no influence on students' ability to successfully use the learning tactic of selecting main ideas on their own (Vanderbilt University, 2015; Carnegie Mellon, 2015; Erickson, Peters & Strommer, 2006). Perhaps, it reflects the fact that first-year students at the university do not so much need self-directed learning, but rather need to work cooperatively in study groups or to learn from others. According to Zumbrunn, Tadlock and Roberts (2011) even though self-regulation is something that could be learned in the classroom and be applied to learning, the first

year students does not cultivate that and as such may not be significantly related to their learning behaviour.

Furthermore, motivation as one of the dimensions of emotional intelligence had been adjudged to have an impact on students' study aids (strategic learning behaviour) (Remali, Ghazali, Kamarauddin, & Kee, 2013). According to Remali *et al.* (2013), the more motivated someone is; the more likely he/she tends to learn appropriate behaviour and as such influence students' ability in selecting main ideas (Ormrod, 2008).

Two impacts of motivation on students' learning behaviour has been identified by scholars (Amari, Motlagh, Zalani & Parhon., 2011; Tella, 2007). First, motivation influences the ability of the students to select the main idea from their learning materials. Students who want to do well, learn more, and achieve better grades are more motivated to succeed than those who are not. Second, motivation has an impact on the use of study aids in their learning strategies. Motivation is a key determinant in achieving goals; the more motivated the student is the more likely he/she is to learn the appropriate behaviour. In the context of education, success means learning how to study better and study aids are a big part of that process (Amari et al., 2011; Kururkar, Cate, Ten, Vos, Westers & Croiset., 2012).

Both the motivation and empathy sub-dimensions of the emotional intelligence influences students' self-testing in their learning strategies (Pintrich, 2003; Zhu & Leung, 2011). Motivation seems to drive an individual to succeed, and emotional

support from parents and peers assists in a student's ability to do better, achieve goals, and overcome barriers. Empathy, which is the ability of students to recognize the needs and feelings of others, be interested in the feelings of others and respond to the needs of others, helps create a better learning environment and students are better able to work collectively to do well (Momentous Institute, 2014). Such collective attitude is an inherent part of the Asian society (Hofstede, Hofstede, & Minkov, 2010). In no small measure, high emotional intelligence helps students deal with fellow students and faculty, help students adapt to the new environment, and helps them develop appropriate learning strategies by following examples of successful students and learning to work in groups.

However, some studies also revealed that Emotional intelligence factors had no influence on students' information processing (strategic learning behaviour) (Dodonova & Dodonov, 2012). This could be due to the differences that exist between information processing for factual material and for emotions. For instance, emotional intelligence might help to speed the processing of emotions but had relatively little impact upon students in their cultural environment with respect to factual elements of learning behaviour

Emotional intelligence does not seem to have any direct effect on student's time management with respect to the learning strategies as it is more connected with emotional maintenance and development. Whereas time management skills, in this context, is more connected with social intelligence and learning with others in a person's peer group.

Furthermore, empathy can also have a negative impact on students' test-taking strategies in their learning strategies. This may be the product of several factors. First, students may need certain levels of empathy before empathy becomes predictive of academic performance through strategic learning. Second, students probably develop a more profound sense of empathy as they grow older. Third, empathy can be a learned behaviour. Students who are new to campus, new to their peer groups, and new to the learning process perhaps are less astute in their ability to recognize and respond to the needs of their fellow students (Momentous Institute, 2014). Therefore, examining the relationship between emotional intelligence and students' strategic learning behaviour in this study will be a welcome development.

## **2.6 The Relationship between Social Intelligence and Strategic Learning Behaviour**

Several sub-dimensions of social intelligence were found to have an impact on students' strategic learning behaviour. These included empathy accuracy (Lopez, Bonenberger & Schneider, 2001), self-presentation and concern (Besser, Flett & Hewitt, 2010; Lucas, 2011).

Previous studies (Batson, Chang, Orr, & Rowland, 2002) have revealed that empathy accuracy as one of the dimensions of social intelligence has been perceived to have an impact on student attitudes and their learning strategies. This may be due to child-rearing practices of parents that had affected the emotional environment of the family. Lopez *et al.* (2001) in their study revealed that an excessively authoritarian attitude of parents was associated with the low empathy level of the child while



inductive attitude was associated with high empathy level. Thus, authoritarian parents tend to limit their child's further emotional development (Marr & Ezeife, 2008) due to parents' high demandingness over the child's life (Baumrind 1967, 1971). Authoritarianism was one factor that separated cultural outlooks and may be one factor in this instance (Hofstede *et al.*, 2010).

Social intelligence could serve as a foundation for, and help facilitate, the development of intercultural sensitivity (ICS). Components of social intelligence, such as having an interest in (and concern for) others and demonstrating empathy lead towards acceptance and adaptation. Developing social knowledge of cultural values provide students with the fundamental basis to engage in effective intercultural communications among their peer groups on a college campus. By developing this social knowledge, they would be able to achieve shared meanings and meet specific needs as fit in among others. Fitting in is a key element of the adolescent experience and a necessary condition for social and emotional being (Nasir & Masrur, 2010; Institute of Medicine and National Research Council Committee on the Science of Adolescence, 2011).

Also, self-presentation as the ability of an individual to express his/her feelings and let others know how he/she feels and it has been identified to have a significant relationship with study aids (Sorrentino & Higgins, 1996; Besser *et al.*, 2010; Lucas, 2011). As explained by Self-Presentation Theory, which assumed that people, especially those who self-monitor their behaviour, hoping to create a good impression, would adapt their attitude reports to appear consistent with their actions.

Ong, Ang, Ho, Lim, Goh, Lee and Chua (2011) have also identified self-presentation to have a negative influence on students' concentration (strategic learning behaviour). According to Ong *et al.* (2011), one issue that educators and social philosophers have been greatly concerned with is the impact of self-presentation upon today's adolescents. A great concern is that such adolescents are increasingly becoming narcissistic in the use of social media such as Facebook and their behaviours are changing radically. Such involved self-presentation could lead to a decline in overall social intelligence, and combined with attention spans that socially inspired electronic multitasking shortens, may lead to a decline in the ability to concentrate for longer periods of time on academic tasks. The available evidence confirmed that people do adjust their attitudinal statements out of concern for what other people would think but some genuine attitude change occurred (Bar-on, 1997).

As revealed in previous studies, social cognition and concern which is one of the dimension of social intelligence affect students' attitudes in their learning strategies especially, their time management which are learnt through personal practice or activity-based training at the university level (Bandura, 1977). Students tend to pick up and maintain attitudes drawn from their reference groups. These peer groups were the society in which students operate and from whom they learn social norms. First-year students were particularly interested in fitting and interacting with those in their group (Williamson, 2010).

Social cognition, self-presentation and influence may affect students' information processing in their learning strategies (Leary & Allen, 2011). This could be due to

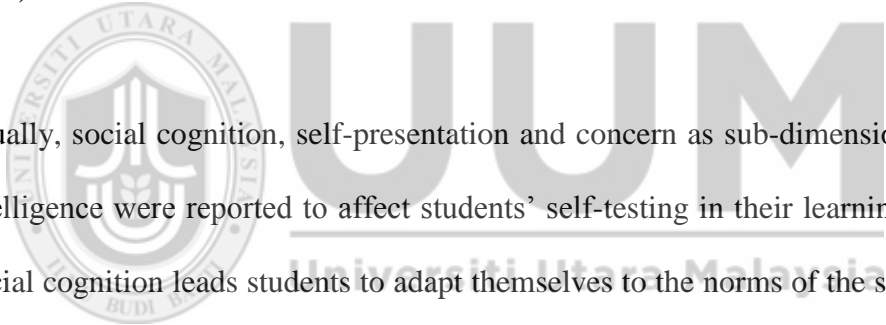
the fact that these students do not operate in a cultural vacuum and as such, understanding the educational culture around; helps them to adapt and adopt to their new surroundings (Cattley, 1980; Olaniran & Williams, 2012; Hanges, Lord, & Dickson, 2000; Rosenberg, Westling & McLeskky, 2010).

Social cognition, self-preservation and influence were reported to have an impact on both the ability of students to select the main idea in their learning strategies and the use of study aids. The self-presentation and influence sub-dimension of social intelligence had an impact on the ability of the students to select the main idea in their learning strategies. This was because the ability of a student to control his or her emotions is a factor in reducing academic achievement anxiety and focusing on the leaning task at hand (Boekaerts & Pekrun, 2016).

Attunement refers to accurately understanding the thinking, emotions, needs and feelings of others. This sub-dimension of social intelligence was reported to effect students' test-taking strategies in their learning strategies. Both attunement and social intelligence seemed related to group behaviour. Because these students were mostly of the same age, background, and cultural experience, they should be expert in interpreting the behaviour of others in the same peer group. Quite naturally, students of this age react to peer group behaviour and pressure and desire to "fit in" (Nasir & Masrur, 2010; McClelland, 1973).

The attunement, social cognition, self-presentation and concern as component of social intelligence similarly were reported to affect the students' study aids in their

learning strategies (Bar-On, 2006; Bar-On, Handley & Fund., 2005). Adolescent students, particularly in their first year at university, want to fit in with their peer group. Thus, they were more attuned to the needs and behaviours of that peer group and want to demonstrate through their actions so that they could fit in and attune themselves to the normative behaviours of the society (Bandura, 1977; Brown, 2008; Hofstede *et al.*, 2010). Using common study methods would be an example of adapting to normative behaviour patterns (Philipps, 2010). Quite naturally, students of this age tend to react to peer group behaviour and have the desire to “fit in” (Nasir & Masrur, 2010). Therefore, first-year students have potential to achieve their life aims if they are willing to grow (Goleman, 1995; Jones & Day, 1997; Mayer & Salovey, 1990).



Equally, social cognition, self-presentation and concern as sub-dimensions of social intelligence were reported to affect students' self-testing in their learning strategies. Social cognition leads students to adapt themselves to the norms of the society. They want to do as their peers do, and, if study habits were part of that peer group, a student would develop that study skill. Self-presentation connects a student to his/her peers so that students in a collective cultural environment would receive study help from others in their group. Concern fits this collective profile as well, because the ability to think of others directly leads to collective study and the passing on of study skills (Pace & Edmunson, 2014)

Social intelligence factors also had mixed effects. First, social intelligence did not influence student's motivation in their learning strategies. This may be because goal-

directed behaviour, effort and energy, initiation and persistence, cognitive processing, and the impact of consequence motivation leads to improved performance. Components of social intelligence, such as having an interest in (and concern for) others and demonstrating empathy may lead towards acceptance and adaptation (Dong, Day, & Collaço, 1998-1999; Gutman & Eccles, 2007). Developing social knowledge of cultural values provides students with the fundamental basis to engage in effective intercultural communications among their peer groups on a college campus. Thus, students who were most motivated to learn and excel in classroom activities tend to be the highest achievers (Schiefele, Krapp, & Winteler, 1992; Walberg & Uguroglu, 1980). Conversely, students who had little interest in academic achievement were at high risk for dropping out before they graduate from high school (Hardre & Reeve, 2003; Hymel, Comfort, Schonert-Reichl, & McDougal., 1996; Vallerand, Fortier, & Guay, 1997).

High social intelligence would suggest that students respond positively to learning cues by means of their social intelligence and that these cues came from their fellow students and faculty members. This in turn would lead the students to respond to those cues in order to gain rewards (good grades, recognition) and this could only be achieved by developing adequate strategic learning behaviour (KIPP, n.d.).

A study comparing the effects of cognitive intelligence and social intelligence as measured by academic achievement on adolescent popularity in two school contexts produced interesting findings (Meijs *et al.*, 2010). The school contexts were a college preparatory school and a vocational school in Northwest Europe. In the

study, two main delineations were made between sociometric popularity and perceived popularity. Sociometric popularity was a measure of acceptance while perceived popularity was a measure of social dominance. Findings indicated that regardless of context, perceived popularity was strongly connected to social intelligence, but not to academic achievement. This may suggest that a popular student may be highly socially intelligent, but not necessarily doing well academically. On the other hand, sociometric popularity depended on context. Within the preparatory colleges, students gained popularity by doing well both socially and academically. In contrast, vocational students gained sociometric popularity by excelling either academically or socially, but not in combination.

Clearly, the role of the educational context came to the fore. Whereas there was an expectation that social intelligence had a positive effect on popularity regardless of peer group, academic achievement leads to increased popularity only if it was priorities within the context and peer group. Thus, different educational contexts have different expectations regarding popularity and academic achievement.

## **2.7 Demographic Factors as a Control Variable**

Demographic factors such as gender, age, GPA, financial support, student's status in family, parents' marital status, father's and mother's occupation, family monthly income, father's and mother's education have been widely used as predictors of future academic success of students in a wide range of university settings across many nations (Utzman, Riddle, & Jewel, 2007; Colorado & Eberle, 2010; Alhajraf & Alasfour, 2014; Gammie, Paver, Gammie, & Duncan, 2003a; Kaighobadi & Allen,

2008). Thus, this study will examine whether these predictors helped students' to strategize their learning strategies.

**Gender:** Gender has been shown to have a significant relationship with students' academic success (Leppel, 2002; Ting & Robinson, 1998). First, female students were found to have different priorities influencing their academic performance (Leppel, 2002; Hofstede *et al.*, 2010).

Second, females and males may socialize differently at home or in the college environment because of their differences in cultural practices, and these differences may impact their learning (Ting & Robinson, 1998). This is because fitting in socially and developing a network of friends and colleagues on campus is critical. Females experience negative impacts if they are not socially integrated into the college community (Leppel, 2002). This could be due to their external commitments such as family obligations or children and these may leave negative impact on their learning (Leppel, 2002).

These contributing factors to learning may also be linked to male and female students having different learning strategies. Male students tend to use socio-affective learning strategies more often than female students (Božinović & Sindik, 2011). In addition, gender differences were also connected to different learning style (McIntyre, 2010). This is because men used more learning strategies compared to women as man is seen as the bread winner of the family and therefore is required to get a job to support the family (Tran, 1988). This may influence their ability to strategize their learning.

**Age:** With respect to age, studies have found that older students tend to do better in school (Leppel, 2002). Owen (2003), for example, found that older students did better than younger ones in a two-year community college. Such a result may be due to the fact that older students are more mature, know, understand, and engage in better learning strategies, and spend more hours studying (Nelson, 2003).

**GPA:** A universally common measure of academic success is GPA (grade point average), which is directly linked to continuing enrollment (Allen, 1999; McGrath & Braunstein, 1997; Tross, Harper, Osher, & Kneidinger, 2000). Students who did not adapt to the university environment were found not to do well academically and generally leave the university without graduating (Tinto, 1993). A low GPA causes students to leave the university due to reasons including the stigma connected with the perception of failure as having poor results (Tinto, 1993). A high GPA earned after the first semester has been found to be a good indicator of continuing enrollment and academic success (Allen, 1999; McGrath & Braunstein, 1997). Students who are unable to adapt emotionally and socially to campus life, may be unable to adjust to their new academic life and this inability may indirectly contribute to poor learning strategies.

**Financial support:** This is another factor impacting students' success in college. Differences in family income have been found to create different levels of financial need among students (King, 2002). Studies have shown that financial need has been negatively associated with academic success (King, 2002; Somers, Woodhouse, & Cofer, 2004; Ferguson, Bovaird, & Mueller, 2007). The indirect effects of poverty have been related to poor academic performance. For example growing up in poor



homes meant that children may suffer real damage because their brains are less equipped to learn as they are hardly exposed to any learning materials in their homes. This disadvantage home may pose poor learning habits that do not nurture learning habits. This is supported by the anatomical differences revealed in a series of MRI's which found that children from poor households have smaller amounts of gray matter in areas of the brain used for learning. What may account for differences are a host of factors such as less stimulation from parents, sleep disruption, and nutritional deficits (Hair, Hanson, Wolfe, & Pollak, 2015). Thus, such poor home conditions may hinder a child from developing stable emotional and social skills that is much needed in developing academic interest, which is highly needed in learning. As a result, low-income students are more likely to drop out than their middle and upper income peers (King, 2002).

In Thailand, the disparity in income and access to financial resources is a particular problem because of large-scale wide divide in income across the nation. Income disparity leads to not only different access to higher education but also the inability to remain in school. Students who come from wealthy families are more likely to enter and succeed in college compared to students who come from poor families. This means that students from poor families need financial support to remain in school.

**Parents' marital status:** In no small measure, the foundation for academic success begins in the home. Children raised in an intact family (father and mother married and living together) have been found to have better behaviour, cognitive, and emotional outcomes as compared to children living in other family structures

(Amato, 2005). Intact families may influence children's school readiness in a variety of ways. For example, math and reading attainment has been linked to children who were raised by parents with higher income levels and parental involvement of intact families. Overall, children from intact families complete more years of schooling, have higher educational attainment (Frisco, Muller, & Frank, 2007), and possess school readiness to college completion (Kim, 2008) compared to children from non-intact who tend to fall behind their peers in all aspects of school life (Lillard & Gerner, 1999).

**Father's and mother's occupations:** In addition, parents' occupations are part of family background and thus are also part of the indicators for social and cultural class that impact students' learning. Studies have found that status attainment is connected to a person's family of origin. The occupation of both father and mother besides levels of education of both parents, and family income is associated with later success in life (Learning Domain, n.d.). However, father's occupation has been especially found to influence children's chances of completing college (Hout, Raftery, & Bell, 1993). In the United States, children whose fathers' jobs were categorized as unskilled blue collar had a slightly more than 50% chance of finishing college. Children whose fathers were either professionals or managers had an 80% chance of completing college. Children whose father's occupation was classified as skilled blue collar or clerical/sales had between 60 to 65% chance of finishing tertiary education (Hout *et al.*, 1993). In Malaysia, Vellymalay (2012) found that parent's education levels, employment status, and income among parents from lower socioeconomic classes affected parents' understanding and knowledge on the values

that should be placed on their child's education. The higher the parent's socioeconomic status, the greater was the parent's involvement in their child's education. In turn, such involvement by parents of higher status was likely to inculcate good skills, behaviour and values of education in their children, values that are extremely important for learning.

The same relationship seems true for Thailand. For example, Lockheed, Fuller, and Nyirongo (1989) found that father's occupation influenced children's expectations, perceptions of ability, and effort, which in turn, influenced their academic achievement. In addition, how parents felt about school and how involved they became in their children's education was part of the parental background, a background that includes educational attainment and, in turn, occupation (Ye & Jang, 2014). Thus, career aspirations of Thai tertiary students are influenced by family factors, which, of course, include parental occupations (Lerdpornkulrat, Loul. & Sujivorakul, n.d.; Petchprasert, 2013). Thus, it can be concluded that parents' occupation reflect their ability to nurture their children's learning which in turn helps children to strategize their learning behaviour.

**Father's and mother's education:** Parent's educational attainment influences children in several ways. Studies have shown that children from households in which their parents did not graduate from college, they were likely to have jobs with lower incomes later in life. Parents' lower incomes, in turn, are linked to several issues such as poverty and access to resources, and these are then linked to lower status occupations. Students from households with low levels of parents' education are also less academically prepared to succeed in college (Choy, 2001; Warburton, Bugarin,

& Nunez, 2001) as they tend to have lower aspirations compared to students whose parents are more educated (Hahs-Vaughn, 2004). Thus, these studies indirectly showed that parents who experienced college life may help their children to develop positive attitudes toward learning and this may link to their learning strategies which in the end help them to do well in their studies. Educated parents are also able to teach their children study habits and strategies and serve as examples for their children to follow.

The results of first-year of attendance at university are crucial for the continuing academic success of all college students (Pascarella & Tenezini, 1991; Tinto, 1993), but they are particularly relevant for students whose demographic characteristics have placed them at risk for non-continuance (Horn, 1998; Ishitani, 2003). Once enrolled in college, these students suffer from great disadvantages stemming from their demographic backgrounds and a great majority of them typically depart the university (Ishitani, 2003).

Academic success for students during the first year of college reflects students' academic, social and personal experiences both before and after entering college (Parscarella & Tenenzini, 1991; Tinto, 1993). Demographic characteristics have been determined before a student's enrollment and this makes their college experience more complex, interacts with the social and cultural environment, and ultimately may lead to success or failure during their study years (Pascarella & Terenzini, 1991).

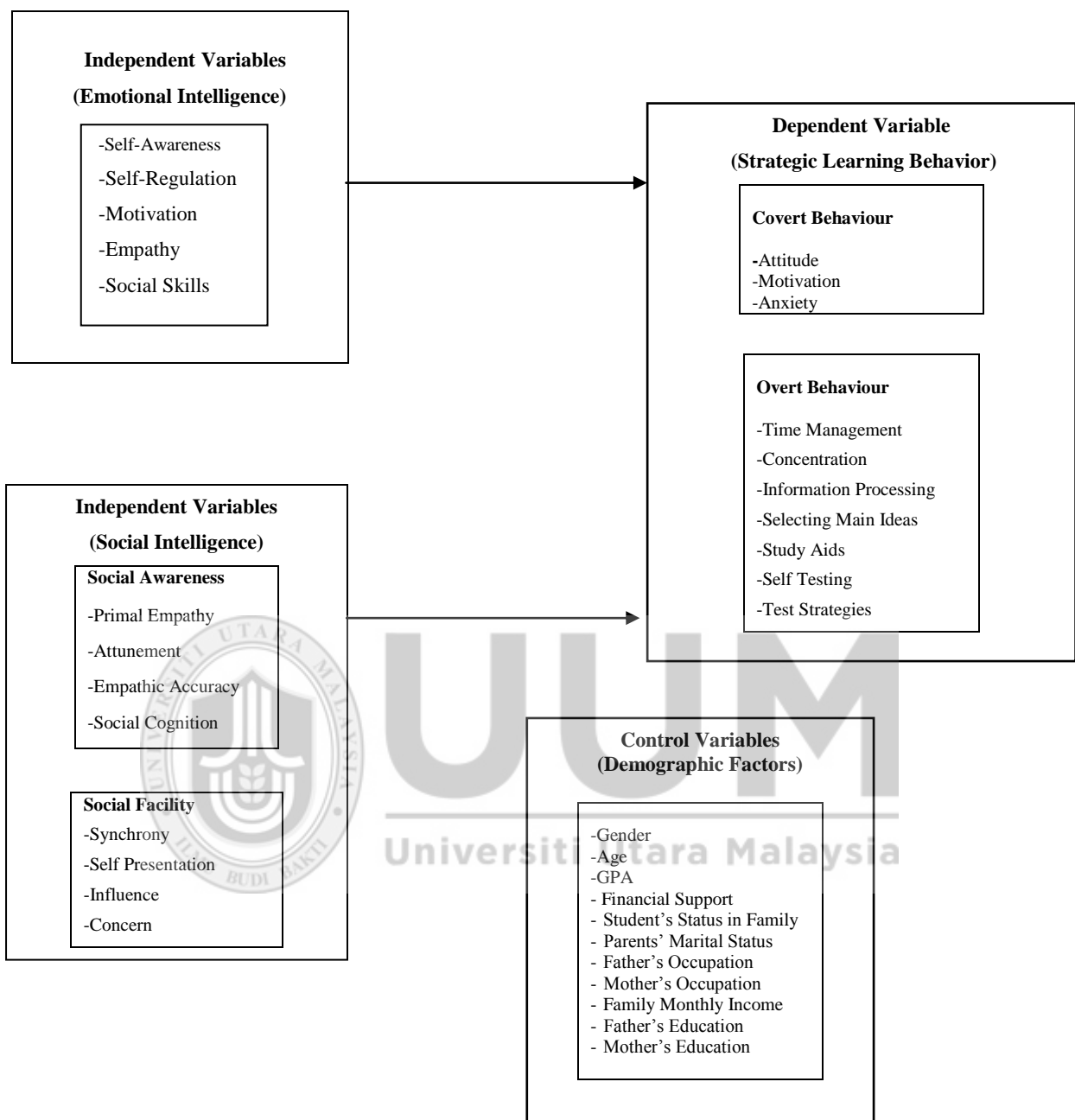


Figure 2.1: Research Conceptual Framework

## 2.8 Summary

Emotional intelligence and social intelligence have both shown to have a relationship with learning behaviours. Goleman was responsible for popularizing the theory of emotional, offering emotional intelligence as an alternative and adjunct to IQ as a predictor of life success. Both Bar-On and Goleman have asserted that unlike IQ, emotional intelligence could be developed through training. This viewpoint has proved to be deeply attractive to people who were presented with the possibility of advancement in life through personal development as opposed to the inherent talent of IQ alone. Over the past decade, emotional intelligence has been the subject of research within higher educational settings. Findings have indicated that emotional intelligence is a factor within interpersonal relationships and the need for achievement. Likewise, social intelligence, which Thorndike first posited in the 1920s, has been found to be a separate and a large factor in governing interpersonal dynamics, including those related to higher education. Both emotional intelligence and social intelligence have been found to be related to learning behaviours embedded in the successful use of appropriate learning strategies and thus linked with a variety of academic variables. Thus, the belief is that by developing appropriate social and emotional intelligences through training students will be able to use more desirable learning strategies and thus become more successful in school.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The major focus of this study was to: 1) examine the level of students' emotional intelligence, social intelligence and strategic learning behaviour among students and 2) whether emotional intelligence and social intelligence play a significant role in their strategic learning behaviour, 3) examine if demographic factors affect the relationship between emotional intelligence and social intelligence play a significant role in their strategic learning behaviour. This chapter discusses the following components: a) research design b) population and sampling c) research instrument d) validity and reliability of the instrument e) the questionnaire f) data collection procedure and g) data analysis.

#### **3.2 Research Design**

Research design is the plan and structure that guide researchers in carrying out studies to obtain answers to research questions. Viewing the purpose of the study, its framework and the hypothesis formulated, this study uses a quantitative research methodology involving survey questionnaire to collect quantitative data.

A quantitative research method was appropriate for this study to explain objectively the correlational relationship between emotional intelligence, social intelligence and strategic learning behaviour through the collection of numerical data from the samples by using statistical methods to make inferences (Leedy & Ormrod, 2005;

Gall, Gall & Borg, 2007). A cross-sectional survey design was employed for the purpose of data collection as all the data used in this study were collected at a single point in time (Sekaran & Bougie, 2010). According to Burns and Bush (2003), Creswell (2002); quantitative research is best applicable when a researcher has agreed that precise information is needed. This is especially true for this study as it involved data taken from students at Songkhla Rajabhat University, making it most suitable for the proving of the hypotheses in this study.

It is also an important means of conducting research in educational and psychological context (Gall, Gall, & Borg, 2007; Cozby, 2004) as it studies human knowledge, idea and behaviour so as to come to a logical and empirical conclusion that can be used as a reference in explaining and predicting human beings behaviour in general. It attaches the importance to the quantified or numerical data and uses statistical methods to analyze them.

### **3.3 Population and Sampling**

#### **3.3.1 Population**

The population of this study was first year undergraduate students from three districts in southern Thailand. There are three universities and Songkhla Rajabhat University was chosen as it comprised students from the three districts compared to the other two universities. Songkhla Rajabhat University has 3,652 students from 7 faculties' Arts, Agricultural Technology, Education, Humanities and Social Science, Industrial Technology, Management Science, and Science and Technology. There were 1,269 male and 2,383 female.



### 3.3.2 Sampling

The sampling has to represent all the undergraduates in Thailand. Therefore, it has to comprise Thai students that come from various socio-economic backgrounds. As such, first year Songkhla Rajabhat University students in their second semester of 2013 academic year would be suitable as respondents as they come from three districts in southern Thailand, Pattani, Yala, and Narathiwat.

The size of the subject group was very crucial in research because appropriate subject group would yield sufficient data to make the study valuable. The determination of the sample size according to Davis (2000) depends on the number of factors among which are homogeneity of the sampling unit, statistical power, cost, analytical procedure, personnel and time.

The sample size for this study was derived using Yamane (1973) formula at the reliability level of 95%. The calculation yielded the number of sample to be used as the representative of the population in the case of finite population.

#### **Formula:**

Sample size

Yamane (1973) invented the formula for calculating the sample size as follows:

$$n = \frac{N}{1+Ne^2}$$

n is the number or size of the sample

N is the size of the population

e is the irregularity allowed (In this case it is 0.05)

Hence the sample size of this study was

$$n = \frac{3,652}{1+3,652(0.05^2)}$$

$$n = \frac{3,652}{1+3,652(0.0025)}$$

$$n = \frac{3,652}{10.13}$$

$$n = 360$$

From the calculation result showed, if the population was 3,652 and the irregularity allowed was 0.05, the sample size should be 360. However, to cater for the missing data, 569 respondents were finally selected as sample for analysis in this study.

A sample can be chosen via probability and non-probability sampling procedures. According to Hair, Money, Samouel, and Page (2007), the calculation of sample size does not necessarily bring about a true representation of the population and as such, depends on the process used in the selection of the elements. A multilevel sampling technique was adopted for this study.

In the first stage, the students' population in the university was stratified into seven according to their faculties. In the second stage, Proportionate sampling strategy was used to draw 569 respondents from 3, 652 students in the seven faculties. The sample was assigned in proportionate to the number of students in each faculty. Thirdly, a list comprising all the students were collected from various faculties and

using the random sampling table, simple random sampling techniques was further used to select the elements by drawing lots from the numbers assigned to each student in class since simple random sampling technique provides equal opportunities for all the subjects in the population to be selected as respondents and it had outstanding characteristics of being convenient and easy. According to Jun, Cai, and Shin (2006), the application of sampling method for this study is most suitable as random sampling method figures heterogeneity among respondents to reduce the common survey bias as well as improve the representativeness of the sample by minimizing the sampling error.

The researcher also ensured that students' selection cut-across the three province of Thailand but faculties were used as the major criteria because of the dependent variable, Strategic learning behaviour needs to be study across various discipline (see Table 3.1).

Table 3.1

*Respondents in the Study*

No.	Faculties	Number of students	Result
1	Arts	212	33
2	Humanities and Social Science	549	86
3	Management Science	1,260	196
4	Education	311	48
5	Agricultural Technology	299	47
6	Industrial Technology	328	51
7	Science and Technology	693	108
<b>Overall Total</b>		<b>3,652</b>	<b>569</b>

### **3.4 Research Instrument**

A survey questionnaire (Appendix 1) was used to gather information from the selected respondents. The instrument used in collecting the data was questionnaire designed by the researcher; based on related ideology, theories and literature as well as existing instrument. It was composed of 4 parts:

Part 1 is the demographic factors of the first year students at Songkhla Rajbhat University. The items were on gender, age, GPA, financial support, student's status in family, parents' marital status, father's occupation, mother's occupation, family monthly income, father's education and mother's education.

Part 2 is on the Emotional Intelligence Scale (Table 3.2) which covered 5 dimensions: 1) self-awareness, 2) self-regulation, 3) motivation, 4) empathy and 5) social skills. Emotional Intelligence Scale was developed from Daniel Goleman's Emotional Intelligence Theory in 1998 and Phatthanaphong's research in 2007. This scale was found suitable for this study because the department of mental health in Thailand has used it in their study and Phatthanaphong (2007) has also used the scale to measure emotional intelligence of university students in Thailand.

There were 40 items which covered the 5 sub-dimensions with 2 types of items in the questionnaire: positive and negative items and a 5 point Likert scale was used (Table 3.5).

Table 3.2

*The Dimensions and Indicating Behaviour of the Emotional Intelligence Scale*

<b>Dimension</b>	<b>Indicating behaviour</b>
Self-awareness	ability to recognize one's own feelings and emotions, know the cause of these emotions, express one's own feelings, assess his/her situation, know about his/her strengths and weaknesses, have self-confidence in one's own abilities and evaluate himself/herself
Self-regulation	ability to manage one's own emotions, control inner feelings, deal with one's own state of mind, adapt to changes and have an open mind towards new situations, knowledge and happiness.
Motivation	ability to drive forward and strive to achieve a goal. Emotional support from parents and peers assists one's ability to do better and achieve one's goals and overcome barriers one may encounter.
Empathy	ability in recognizing the needs and feelings of others, being interested in the feelings of others and responding to the needs of others.
Social skills	ability to build relationships with others so as to achieve change in a good way, to persuade people to agree to what is beneficial to the public, to agree to work with others and make people around you happy.

Part 3 is on Social Intelligence Scale (Table 3.3) consisting of two dimensions: social awareness and social facility were adapted from Goleman (2006) and Tongsuebsai (2009). Goleman's Social Intelligence Theory, especially his ideology has been widely accepted by scholars was used in identifying the components of the Social Intelligence Scale in this study. The instrument has also been used by Tongsuebsai (2009) in Thailand. However, the researcher based the items constructions on Goleman's theory which has 2 dimensions:

- 1) Social awareness: primal empathy, attunement, emphatic accuracy and social cognition
- 2) Social Facility: synchrony, self-presentation, influence and concern

Table 3.3

*The Dimensions and Indicating Behaviour of the Social Intelligence*

<b>Social intelligence</b>	
<b>Social Awareness</b>	
<b>Components</b>	<b>Indicating behaviour</b>
Primal empathy	The recognition of the emotions and feelings of others in the society as perceived by one's instinct
Attunement	Involves an individual listening carefully to what others have to say as well as bonding with others in such a way as to understand others' emotions, feelings and needs
Empathic Accuracy	Refers to accurately understanding the thinking, emotions, needs and feelings of other people
Social cognition	Refers to the ability of the student to know about the society around. Social cognition will have an effect on students' behaviour towards the society and this will lead students to adapt themselves well to the norm of the society.
<b>Social Facility</b>	
<b>Components</b>	<b>Indicating behaviour</b>
Synchrony	The ability to capture and understand by observing the moods of another person as expressed by that person. An individual is able to understand the other person's behaviour and know how the other person feels from the behaviour he display
Self-presentation	The ability of an individual through emotional expression, expresses his/her feelings and let others know how he/she feels. In particular, the emotional control to fit each situation
Influence	The ability to direct the behaviour of others toward a certain perception of a situation at that particular time. An individual can attract the people around to follow the behaviour he/she wants
Concern	The ability to respect others or think of others and to know how to help others when they are faced with problems

Part 4 is the strategic Learning behaviour Scale (Table 3.4) which consists of two dimensions: 1) covert behaviour and 2) overt behaviour (Weinstein & Palmer, 2002; Sirisamphan & Mahakhan, 2011). The strategic Learning behaviour Scale was

developed based on the Weinstein and Palmer's ideology (2002) and the work of Sirisamphan and Mahakhan (2011).

Sirisamphan and Mahakhan (2011) adopted the ten constructs in the "Learning and Study Strategies Inventory (LASSI)" which comprised the covert behaviour: attitude, motivation and anxiety while overt behaviour has seven components: time management, concentration, information processing, selecting main idea, study aid, self-testing and test strategies. This study adapted this instrument because it have been found useful by Sirisamphan and Mahakhan (2011) in measuring students' strategic learning behaviour in universities in Thailand.

Table 3.4

*The Dimensions and Indicating Behaviour of the Strategic Learning Behaviour Scale*

<b>Strategic Learning Behaviour</b>	
<b>Covert Behaviour</b>	
<b>Components</b>	<b>Indicating behaviour</b>
Attitude	Refers to measures the self-motivation and desire to succeed. A low score indicates the student needs to learn how to set goals
Motivation	Measures on how well students apply themselves to study and their willingness to succeed. A low score indicates the need to learn how to set goals
Anxiety	Refers to measures on the level of worry a student has regarding his/her study. A low score indicates the student needs to learn coping techniques

Table 3.4 (Continued)

<b>Components</b>	<b>Indicating behaviour</b>
Time Management	Refer to the ability of a student to create a schedule and manage his/her workload. A low score indicates the need to learn how to create a timetable and deal with distractions and other goals
Concentration	The student's ability to focus on academic tasks. A low score indicates a student should learn techniques to focus attention and maintain concentration
Information Processing	The ability of a student to activate his/her prior knowledge of a topic in order to make connections between old and new information and then to organize the new information meaningfully. A low score indicates a student should focus on learning ways of organizing what he/she is learning
Selecting Main Ideas	Refers to the student's ability to discern important information requiring further attention. A low score indicates the need to learn ways of identifying main ideas from supporting ones
Study Aids	The student's ability to access and use both materials (headings, sub-heading within a text) and support structures (study group). A low score indicates the need to learn what is available and how resources can be used
Self-Testing	Measures the student's ability to review material and assess what has been understood from learning and what needs further attention. A low score indicates the student should learn strategies to review and monitor his/her understanding of the material
Test Strategies	Measures the student's ability to prepare for and take examination. A low score indicates the need to learn test preparation strategies as well as test taking strategies.

### 3.5 Validity and Reliability of the Instrument

All the variables in the study were tested by previous researchers for content validity and reliability. However, in this study it was tested by Index of item objective congruence (IOC) for content validity and Cronbach coefficient alpha value for Reliability.



### 3.5.1 Validity

The emotional intelligence scale, social intelligence scale and learning behaviour scale were examined by 5 experts, one from Malaysia and four from Thailand to validate the content and clarity of items. The experts' qualification were specified as follows:

- 1) Holding an academic title
- 2) Having doctorate degrees in education or psychology
- 3) Having knowledge and experience in teaching for at least 5 years after receiving the doctorate degree

All the variables in the study were tested by Index of Item Objective Congruence (IOC). The mean was between 1 to -1. However, if the question had validity then the mean would be nearly 1. If mean was less than 0.5, then there will be a need to reword the question.

There were 48 items for emotional intelligence, social intelligence has 64 items and strategic learning behaviour 75 items. After IOC, there were 40 items that could be used, 7 items needed to be reconstructed and 1 item was removed from the emotional intelligence scale. Social intelligence had 51 items that could be used, 11 items needed to be reconstructed and 2 items deleted. Strategic learning behaviour had 54 items that could be used, 17 items needed to be reconstructed and 4 items needed to be removed (see appendix 2).

### 3.5.2 Reliability (Pilot Study)

A pilot study was conducted to determine the clarity and readability of the questionnaire, and to test the internal reliability of the items. Data for the pilot was obtained from 42 first year students in a university in southern Thailand who were generally similar to the subjects in the study. The students were briefed on the intent of the study and the procedures involved. A cover letter was also attached to the questionnaire to assure confidentiality to their responses. The emotional intelligence, social intelligence and strategic learning behaviour scale were improved according to the experts' suggestions and then piloted.

The data collected from the pilot study were analyzed using SPSS 16. According to Punch (1998), the higher the reliability, the smaller the error and therefore, the essence of reliability is to reduce biases and errors.

The internal consistency of the items for the constructs in this study was determined by computing for the Cronbach alpha. The Cronbach alpha coefficient for emotional intelligence was .83, .89 for social intelligence and .75 for strategic learning behaviour (see appendix 3) which were all greater than the threshold value of .7 as suggested by Nunnally (1978). Therefore, the instrument used for this study is valid and reliable.

After the reliability test, only three items in learning strategies were deleted. Therefore, the final questionnaire that was used for final data collection comprised

40 items for emotional intelligence scale. Social intelligence had 51 items and strategic learning behaviour had 51 items.

### 3.6 The final Questionnaire

After validity and reliability, the questionnaire had 4 parts:

#### **Part 1:**

Demographic factors: gender, age, GPA, financial support, student's status in family, parents' marital status, father's occupation, mother's occupation, family monthly income, father's education and mother's education. There were 11 items on demographic factors.

#### **Part 2:**

**Emotional intelligence scale:** This scale was developed from Goleman's Emotional Intelligence Theory (1998). There were 40 items to cover the 5 sub-dimensions: self-awareness, self-regulation, motivation, empathy and social skills and a 5 point Likert scale was used (Table 3.8).

As shown in Table 3.5, out of the 40 items in the emotional intelligence scale, 30 of the items are positive statement while 10 of the items are negative statements. The 10 negative statements cut across all the dimensions of emotional intelligence except motivation whose items are all positive statement.

Table 3.5

*Emotional Intelligence Scale*

<b>Emotional Intelligence</b>	<b>Positive Question</b>	<b>Negative Question</b>
<b>Self-awareness (5)</b>	1,2,5	3,4
<b>Self-regulation (9)</b>	7,8,10,11,12,14	6,9,13
<b>Motivation (7)</b>	15,16,17,18,19,20,21	
<b>Empathy (9)</b>	22,23,24,26,28,29,30	25,27
<b>Social skill (10)</b>	31,32,34,35,37,38,40	33,36,39

**Part 3:**

**Social intelligence scale:** Social intelligence scale comprised 2 sub-dimensions: social awareness and social facility which was developed from Goleman's theory (2006) of social intelligence. Social awareness consists of primal empathy, attunement, emphatic accuracy and social cognition. Social facility consists of synchrony, self-presentation, influence and concern. There were 51 items in this section. There were 2 types of items in the questionnaire: positive and negative items and a 5 point Likert scale was used (Table 3.8).

As shown in Table 3.6, out of the 51 items, 38 of it are positive statement while the remaining 13 are negative wording items. All the dimension of social awareness has between 1 to four negative statements while all the dimension of social facility except self-presentation has one negative statement each.

Table 3.6

*Social Intelligence Scale*

<b>Social Intelligence</b>	<b>Positive Question</b>	<b>Negative Question</b>
<b><i>1.Social Awareness</i></b>		
<b>Primal Empathy</b>	1,2,3,5	4
<b>Attunement</b>	6,7,10,11	8,9,12
<b>Empathic Accuracy</b>	14,15,16,17	13,18,19,20
<b>Social Cognition</b>	21,22,23,25,27	24,26
<b><i>2.Social Facility</i></b>		
<b>Synchrony</b>	28,30,31,32,33	29
<b>Self-Presentation</b>	34,35,36,37,38	-
<b>Influence</b>	39,40,41,42,44	43
<b>Concern</b>	45,46,47,49,50,51	48

**Part 4:**

**Strategic Learning Behaviour Scale:** Strategic Learning Behaviour Scale was developed based on the Claire Weinstein and David Palmer's ideology (Weinstein & Palmer, 2002). It covers 2 sub-dimensions: covert behaviour and overt behaviour. Covert behaviour comprised of attitude, motivation and anxiety. Overt behaviour comprised of time management, concentration, information processing, selecting main idea, study aids, self testing and test strategies. There were 51 items in this section. There were 2 types of items in the questionnaire: positive and negative items and a 5 point Likert scale was used (Table 3.8).

As shown in Table 3.7, out of the 51 items in learning strategies measures, 34 are positive statements while the remaining 17 are negative statements. The negative statement cut across every dimension of learning strategies except selecting main idea and study aids which have five and four positive statements respectively.

Table 3.7

*Strategic Learning Behaviour Scale*

<i>Strategic Learning Behaviour scale</i>	<b>Positive Question</b>	<b>Negative Question</b>
<b><i>1.Covert Behaviour</i></b>		
Attitude	1,2	3,4,5
Motivation	8,9	6,7
Anxiety	10,12	11,13,14
<b><i>2.Overt Behaviour</i></b>		
Time Management	16,17,18,19	15
Concentration	-	20,21,22,23
Information Processing	24,25,26,28,30	27,29
Selecting Main Idea	31,32,33,34,35	-
Study Aids	36,37,38,39	-
Self-testing	40,41,42,43,44, 46,47	45
Test Strategies	48,50,51	49

Table 3.8

*5 point Likert Scale*

<b>Positive question</b>			<b>Negative question</b>		
Most agree	=	5	Most agree	=	1
Agree	=	4	Agree	=	2
Not sure	=	3	Not sure	=	3
Disagree	=	2	Disagree	=	4
Most disagree	=	1	Most disagree	=	5

### **3.7 Data Collection Procedure**

The data for this study was collected after the researcher received the details of the population size in the seven faculties in Songkhla Rajabhat University, Thailand.

The data was collected using the following procedures:

- i) A letter of request for permission was sent to the institution where the students would participate as respondents in this study.
- ii) Contacted the institution in which the students were to participate, set the date and time to conduct the survey.
- iii) The survey was conducted after the objectives and the benefits of the study were explained to the students. This was to enable them to see the importance of the study and be serious when responding to the questionnaire.
- v) The data collected was then keyed into the SPSS program.

In order to rectify any queries on the items of the questionnaire that needed to be address immediately, the questionnaire was conducted and collected personally by the researcher with the help of two research assistants.

### **3.8 Data Analysis**

The data collected was keyed into the SPSS 16. Both descriptive and inferential statistics were employed for the analysis. The respondents' profile as well as the first research question, to identify the levels of emotional intelligence, social intelligence and learning strategies were then analyzed revealing the mean and standard deviation

(SD). Other research questions raised in this study were also answered through the hypothesis formulated using inferential statistics. The data collected was analyzed using t-test, ANOVA, Pearson's Product Moment Correlation Coefficient and Hierarchical Multiple Regression (Table 3.9) to test the significant role of emotional intelligence and social intelligence on students' strategic learning behaviour.

Table 3.9

*The Breakdown of the Analysis Techniques Adopted in this Study*

<b>Research Objective</b>	<b>Research Question</b>	<b>Analysis Technique</b>
1) To examine the level of students' emotional intelligence, social intelligence and strategic learning behaviour among students	1) What is the level of emotional intelligence, social intelligence and strategic learning behaviour among Songkhla Rajabhat University students?	Mean and standard deviation (SD)
2) To examine whether emotional intelligence and social intelligence play a significant role in their strategic learning behaviour	2) Are there any relationships between emotional intelligence, social intelligence and strategic learning behaviour?	
	2.1 Are there any relationships between emotional intelligence and strategic learning behaviour?	Pearson's Product Moment Correlation Coefficient
	2.2 Are there any relationships between social intelligence and strategic learning behaviour?	Pearson's Product Moment Correlation Coefficient



Table 3.9 (Continued)

Research Objective	Research Question	Analysis Technique
3) To examine if demographic factors affect the relationship between emotional intelligence and social intelligence play a significant role in their strategic learning behaviour.	<p>3) Does demographic factors affect the relationship between emotional intelligence, social intelligence and strategic learning behaviour?</p> <p>3.1 What is the influence of demographic factors on emotional intelligence?</p> <p>3.2 What is the influence of demographic factors on social intelligence?</p> <p>3.3 What is the influence of demographic factors on social intelligence, emotional intelligence and strategic learning behaviour?</p>	<p>T-test ,ANOVA</p> <p>T-test ,ANOVA</p> <p>Hierarchical Multiple Regression</p>

The demographic factors were calculated in terms of frequency and the fundamental information on the respondents was reported. The level of emotional intelligence, Social Intelligence and Strategic Learning behaviour were also calculated using mean and standard deviation. However, the mean were grouped into three categories: high, medium and low (Mangal &Mangal, 2013). The criteria and points assigned to each item were as follows:

The criteria and points assigned to each item were as follows:

Criteria for calculating the level for each item:

$$\frac{\text{Highest point}-\text{Lowest point}}{\text{Number of levels}} = \frac{5-1}{3}$$
$$= 1.33$$

The ranges of each category were as follows:

1.00-2.32 points mean low.

2.33-3.66 points means medium.

3.67-5.00 points means high.

### 3.9 Summary

This chapter presents a research plan on how this research was carried out to obtain answers to the research questions. A quantitative technique was adopted and was discussed in terms of the population and sampling techniques, followed by the research instrument, validation and reliability of the instrument, data collection procedures, and data analysis. The analysis of the data collected was explained in the subsequent chapter.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND FINDINGS**

#### **4.1 Introduction**

The results of this study are presented in 3 parts: 1) level of students' emotional intelligence, social intelligence and strategic learning behaviour among students 2) emotional intelligence and social intelligence play a significant role in their strategic learning behaviour 3) examine if demographic factors affect the relationship between emotional intelligence and social intelligence play a significant role in their strategic learning behaviour. The presentation will follow the 3 objectives and research questions. The statistics used in Part 1 were Mean and Standard Deviation to show the level of emotional intelligence, social intelligence and strategic learning behaviour of the sampling group. Part 2 were Pearson's Product Moment Correlation Coefficient. Finally, T-test, Anova, and Hierarchical Multiple regression were used.

#### **4.2 Respondents Demographic Characteristics**

##### **Gender**

From a total of 569 students, 421(74%) were female and 148(26%) males.

##### **Age**

There were three ages group of students. Most of students in this study were between 18-20 years old. Out of a total of 563 students, 477 were between 18-20 (84.7%), 75 were between 21-22 (13.3%) and 11 were between 23 up (2%) years old.

## **GPA**

Most of students in this study had GPA between 2.51-3.00. From a total of 549 students, 235 achieved GPA between 2.51-3.00 (43%), 168 had GPA between 1.00-2.50 (31%) and 146 had GPA between 3.01-3.87 (26%).

## **Financial support**

There were three groups of financial support in this case. From 552 students, 381(69%) students received financial support from their parents, 163 (30%) received financial support from Education Loan Fund and 8 (1%) received financial support from other source of funding.

## **Student's status in family**

There were 566 students where 482 (85%) lived with parents and 84 (15%) lived with others such as with relatives, living in a dorm and others.

## **Parents' marital status**

There were 568 students where 421 (74%) had parents living together and 147 (26%) had parents who were separated.

## **Fathers' occupation**

In this study, 398 (72%) students had father's occupation as a agriculturist, daily employee and other occupation while 158 students (28%) of the remaining students had father's government servant, state enterprise employee, personal business owner.

### **Mothers' occupation**

Most of the students 416 (73%) had mother's working as a agriculturist, daily employee and other occupation while 152 (27%) students had mother's working as a government servant, state enterprise employee and personal business owner.

### **Family monthly income**

There were two groups of family monthly income; not over 20,000 Baht and more than 20,000 Baht. In this study, there were 374 (66%) students whose family monthly income was not over 20,000 baht, while the remaining 189 (34%) students had family monthly income of more than 20,000 baht.

### **Father's education**

308 (55%) respondents had father's whose level of education was at primary or less than were higher than those whose fathers' education were at high school or higher 254 (45%).

### **Mother's education**

Out of a total of 568 students, 332 (58%) had mothers whose education was at primary or less and 236 (42%) had mothers whose education were at high school or higher.

**Research Question 1.** What is the level of emotional intelligence, social intelligence and strategic learning behaviour among SKRU students?

### 4.3 Levels of Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour

Emotional intelligence consists of 5 aspects: self-awareness, self-regulation, motivation, empathy and social skill. Table 4.1 shows that the overall findings of the first year students' emotional intelligence was at high level (mean=3.80) with all sub-dimensions high: motivation being the highest (mean=4.00), followed by empathy (mean=3.94), social skill (mean=3.77), self-awareness (mean=3.69) while self-regulation (mean=3.61) was at medium level. .

Table 4.1

#### *Level of Emotional Intelligence*

Emotional intelligence	$\bar{x}$	S.D.
1.Self-awareness	3.69	.44
2.Self-regulation	3.61	.42
3.Motivation	4.00	.43
4.Empathy	3.94	.46
5.Social skill	3.77	.49
<b>Total</b>	<b>3.80</b>	<b>.33</b>

*Note.* 1.0-2.33 =low, 2.34-3.66 =medium, 3.67-5.00 =high

Social intelligence has 2 dimensions: social awareness and social facility. Table 4.2 shows that the overall findings of social intelligence was at high level (mean= 3.77). The 2 dimensions; social awareness at a lower level (mean=3.76) compared to social facility (mean=3.78). In the social awareness dimension, sub-dimension primal empathy has the highest level (mean=3.88), followed by social cognition

(mean=3.86) and attunement (mean=3.80), while empathic accuracy was at the medium level (mean=3.56). Meanwhile, in the social facility, sub-dimension self-presentation was at the highest level (mean=3.93), followed by concern (mean=3.85) and synchrony (mean=3.84), while influence was at medium level (mean=3.52).

Table 4.2

*Level of Social Intelligence*

Social Intelligence	$\bar{x}$	S.D.
<b>Social awareness</b>		
1.Primal empathy	3.88	.50
2.Attunement	3.80	.44
3.Empathic accuracy	3.56	.48
4.Social cognition	3.86	.47
<b>Total</b>	<b>3.76</b>	<b>.36</b>
<b>Social facility</b>		
5.Synchrony	3.84	.45
6.Self-presentation	3.93	.49
7.Influence	3.52	.43
8.Concern	3.85	.44
<b>Total</b>	<b>3.78</b>	<b>.35</b>
<b>Overall total</b>	<b>3.77</b>	<b>.33</b>

*Note.* 1.0-2.33 = low, 2.34-3.66 =medium, 3.67-5.00 =high

The findings in Table 4.3 showed that the overall level of strategic learning behaviour was at medium level (mean=3.52) with covert behaviour being slightly lower (mean=3.45) compared to overt behaviour (mean=3.55). However, each of the strategic learning behaviour sub-dimensions has different levels. For covert behaviour, the finding revealed attitude as having the highest level (mean=3.80)

followed by motivation (mean=3.51) and anxiety (mean=3.05) both at the medium level. Similarly, the overt behaviour was reported to be at different levels for each of the sub-dimension. Study aids had the highest level (mean=3.79) followed by self-testing (mean=3.77) and selecting main idea (mean=3.69), while information processing (mean=3.58), time management (mean=3.53), concentration (mean=3.21) and test strategies (mean=3.06) were all at the medium level.

Table 4.3

*Level of Strategic Learning Behaviour*

Strategic Learning Behaviour	$\bar{x}$	S.D.
<b>Covert Behaviour</b>		
1. Attitude	3.80	.58
2. Motivation	3.51	.69
3. Anxiety	3.05	.63
<b>Total</b>	<b>3.45</b>	<b>.41</b>
<b>Overt behaviour</b>		
4. Time management	3.53	.48
5. Concentration	3.21	.69
6. Information processing	3.58	.47
7. Selecting Main idea	3.69	.43
8. Study aids	3.79	.50
9. Self-testing	3.77	.48
10. Test strategies	3.06	.92
<b>Total</b>	<b>3.55</b>	<b>.33</b>
<b>Overall total</b>	<b>3.52</b>	<b>.29</b>

Note. 1.0-2.33 =low, 2.34-3.66 =medium, 3.67-5.00 =high

**Research Question 2** Are there any relationship between emotional intelligence, social intelligence and strategic learning behaviour?



#### **4.4 Relationship between Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour**

##### **4.4.1 Relationship between Emotional Intelligence and Strategic Learning Behaviour**

Table 4.4 reports the analysis of the relationship between emotional intelligence and strategic learning behaviour. Pearson's correlation test revealed that most of the emotional intelligence sub-dimensions of students were positively significant with strategic learning behaviour.

However, when considering each sub-dimension, it was found that two sub-dimensions were negatively significant; self-awareness and anxiety (-.10), motivation and anxiety (-.09) at .05 and four sub-dimension were negatively significant; empathy and anxiety (-.16), empathy and test-strategies (-.17), social skill and anxiety (-.14) and social skill and test-strategies (-.14) at .001.

When considering the highest significant level, social skill (sub-dimension of emotional intelligence) and information processing (sub-dimension of strategic learning behaviour) had the highest significant level (.40). This finding was also significant at .001.

There were also sub-dimensions that were not significant. Self-awareness and test-strategies (-.01), self-regulation and anxiety (-.07), self-regulation and test- strategies (.03), motivation and concentration (.02) and motivation and test- strategies (-.00) were found to be insignificant.

Table 4.4

*Relationship between Emotional Intelligence and Strategic Learning Behaviour*

<b>Emotional Intelligence (EI)</b>	<b>Self-awareness</b>	<b>Self-regulation</b>	<b>Motivation</b>	<b>Empathy</b>	<b>Social skill</b>	<b>(EI) Total</b>
<b>Strategic Learning Behaviour (SLB)</b>						
Attitude	.09*	.09*	.14***	.10**	.18***	.18***
Motivation	.20***	.12**	.13**	.28***	.31***	.30***
Anxiety	-.10*	-.07	-.09*	-.16***	-.14***	-.16***
Time management	.19***	.24***	.20***	.31***	.33***	.37***
Concentration	.22***	.25***	.02	.23***	.27***	.29***
Information processing	.24***	.27***	.26***	.37***	.40***	.44***
Selecting main idea	.14***	.13**	.27***	.20***	.18***	.25***
Study aids	.20***	.20***	.34***	.25***	.30***	.36***
Self-testing	.24***	.23***	.32***	.38***	.34***	.43***
Test-strategies	-.01	.03	-.00	-.17***	-.14***	-.10**
<b>(LB) Total</b>	<b>.26***</b>	<b>.28***</b>	<b>.293***</b>	<b>.33***</b>	<b>.38***</b>	<b>.44***</b>

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001

#### **4.4.2 Relationship between Social Intelligence and Strategic Learning**

##### **Behaviour**

Table 4.5 reports the analysis of the relationship between social intelligence and strategic learning behaviour. Pearson's correlation test revealed that most of the social intelligence sub-dimensions of students were positively significant with strategic learning behaviour.

However, when considering each sub-dimension, it was found that three sub-dimensions were negatively significant; social cognition and anxiety (-.10), synchrony and anxiety (-.09), influence and anxiety (-.10) at .05 and two sub-dimension were negatively significant; self-presentation and anxiety (-.11), concern and anxiety (-.11) at .01.

When considering the highest significant level, social cognition (sub-dimension of social intelligence) and information processing (sub-dimension of strategic learning behaviour), synchrony (sub-dimension of social intelligence) and study aids (sub-dimension of strategic learning behaviour), and self-presentation (sub-dimension of social intelligence) and study aids (sub-dimension of strategic learning behaviour) had the highest significant level (.43). This finding was also significant at .001.

There were also sub-dimensions that were not significant. Primal empathy and anxiety (-.03), primal empathy and test-strategies (-.05), attunement and anxiety (-.07), empathy accuracy and attitude (.06), empathy accuracy and anxiety (-.04), empathy accuracy and test-strategies (.03), social cognition and test- strategies (-.04), synchrony and test-strategies (-.01), self-presentation and test- strategies (.04), influence and test-strategies (.02), and concern and test-strategies (-.05) were found to be insignificant.

Table 4.5

*Relationship between Social Intelligence and Strategic Learning Behaviour*

<b>Social Intelligence (SI)</b>	<b>Primal empathy</b>	<b>Attunement</b>	<b>Empathy accuracy</b>	<b>Social cognition</b>	<b>Synchrony</b>	<b>Self- presentation</b>	<b>Influence</b>	<b>Concern</b>	<b>(SI)Total</b>
<b>Strategic Learning</b>									
<b>Behaviour</b>									
Attitude	.15***	.13***	.06	.16***	.26***	.28***	.17***	.24***	.24***
Motivation	.25***	.13**	.24***	.30***	.28***	.25***	.26***	.24***	.34***
Anxiety	-.03	-.07	-.04	-.10*	-.09*	-.11**	-.10*	-.11**	-.11**
Time management	.30***	.23***	.28***	.41***	.34***	.27***	.33***	.39***	.45***
Concentration	.25***	.20***	.38***	.24***	.15***	.09*	.30***	.19***	.32***
Information processing	.35***	.30***	.36***	.43***	.39***	.40***	.42***	.39***	.53***
Selecting main idea	.29***	.31***	.24***	.31***	.31***	.39***	.31***	.33***	.43***
Study aids	.32***	.33***	.27***	.37***	.43***	.43***	.32***	.39***	.49***
Self-testing	.26***	.23***	.21***	.35***	.35***	.38***	.30***	.39***	.43***
Test-strategies	-.05	.14***	.03	-.04	-.01	.04	.02	-.05	.01
<b>Total</b>	<b>.38***</b>	<b>.36***</b>	<b>.38***</b>	<b>.44***</b>	<b>.44***</b>	<b>.45***</b>	<b>.43***</b>	<b>.44***</b>	<b>.58***</b>

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001

**Research Question 3:** Does demographic factors affect the relationship between emotional intelligence, social intelligence and strategic learning behaviour?

## **4.5 The influence of Demographic factors on Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour**

### **4.5.1 Demographic Factors and Emotional Intelligence**

#### **4.5.1.1 Demographic Factors and Self-Awareness**

Table 4.6 showed the analysis on demographic factors and self-awareness, using T-test (Independent Group) and One-way Anova. The results as follows:

**Gender:** The findings found that students of different gender were not significantly different in their self-awareness. However, male students had higher mean on self-awareness (mean=3.71) compared to female (mean=3.68).

**Age:** Students who were above the age of 23 had higher self-awareness level (mean=3.75) compared with students who were between ages 18-20 years (mean=3.70) and 21-22 years (mean=3.66). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 2.51-3.00 (mean=3.70) had higher self-awareness level compared to students who had GPA between 3.01-3.87 (mean=3.69) and 1.00-2.50 (mean=3.68). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their self-awareness level. However, students who received financial support from other sources of funding (mean=3.75) tend to have higher self-awareness level compared to those who received financial support from parents (mean=3.69) and from education loan (mean=3.67).

**Student's status in family:** Students who lived with others (mean=3.70) tend to have higher self-awareness level compared to those who lived with parents (mean=3.69). However, there was no significant difference between the two.

**Parents' marital status:** Students whose parents were separated (mean=3.71) tend to have higher self-awareness level compared to those who lived with both parents (mean=3.69). However, there was no significant difference between the two.

**Father's occupation:** The findings showed that fathers' with different occupation did not have any effect on their children's self-awareness level. However, students whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.73) tend to have higher self-awareness level compared to those whose father worked as an agriculturist, daily employee and other occupation (mean=3.68).

**Mother's occupation:** Similarly, mothers' occupation too has no significant effect on their children's self-awareness level. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.74) tend to have higher self-awareness level compared to those who have

mothers who worked as an agriculturist, daily employee and other occupation (mean=3.68).

**Family monthly income:** Students who have a family monthly income of more than 20,000 baht (mean= 3.70) tend to have higher self-awareness level compared to those whose family monthly income was less than 20,000 baht (mean=3.69). However, there was no significant difference between levels of income.

**Father's education:** Students who had father's with educational level at the primary or less (mean=3.70) tend to have higher self-awareness level compared to those with fathers' educational level at high school or higher (mean=3.69). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at high school or higher (mean= 3.69) tend to have higher self-awareness level compared to those whose mothers' educational level was at primary or less (mean=3.69). However, there was no significant difference between mothers' educational level.

Table 4.6

*Differences between the Demographic Factors with Reference to Self-Awareness*

Variables	N	$\bar{x}$	S.D.	t/F	Paired
<b>Gender</b>					.69
Male	148	3.71	.45		
Female	421	3.68	.43		
<b>Age</b>					.27
18-20	477	3.70	.44		
21-22	75	3.66	.43		
23 up	11	3.75	.38		
<b>GPA</b>					.06
1.00-2.50	168	3.68	.45		
2.51-3.00	235	3.70	.43		
3.01-3.87	146	3.69	.43		
<b>Financial support</b>					.22
Parents	381	3.69	.43		
Education Loan Fund	163	3.67	.42		
Other	8	3.75	.70		
<b>Student's status in family</b>					-.12
Living with parents	482	3.69	.42		
Living with other	84	3.70	.50		
<b>Parents' marital status</b>					-.42
Living together	421	3.69	.42		
Parents separate	147	3.71	.48		
<b>Father's occupation</b>					1.27
-Government servant/State enterprise employee/Personal business owner	158	3.73	.44		
-Agriculturist/Daily employee /other	398	3.68	.44		
<b>Mother's occupation</b>					1.53
-Government servant/State enterprise employee/Personal business owner	152	3.74	.43		
-Agriculturist / Daily employee/other	416	3.68	.44		
<b>Family monthly income</b>					-.22
Not over 20,000 baht	374	3.69	.45		
More than 20,000 baht	189	3.70	.41		
<b>Father's education</b>					.29
Primary or less than	308	3.70	.44		
High school or higher than	254	3.69	.44		
<b>Mother's education</b>					-.09
Primary or less than	332	3.69	.43		
High school or higher than	236	3.69	.45		



#### 4.5.1.2 Demographic Factors and Self-Regulation

Table 4.7 showed the analysis on demographic factors and self-regulation, using T-test (Independent Group) and One-way Anova. The results were as follows:

**Gender:** The findings found that students of different gender were not significantly different in their self-regulation. However, male students had higher self-regulation level (mean=3.61) compared to female (mean=3.61) students.

**Age:** Students who were between ages 18-20 years (mean=3.61) had higher self-regulation level compared with students who were between ages 21-22 years (mean=3.60) and who were above the age of 23 years (mean=3.54). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 1.00 -2.50 (mean=3.62) had higher self-regulation level compared to students who had GPA between 3.01-3.87 (mean=3.59) and 2.51-3.00 (mean=3.59). However, there was no significant difference between levels of GPA.

**Financial support:** The finding reported that students with different financial support were not significantly different in their self-regulation level. However, students who received financial support from other source of funding (mean=3.89) tend to have higher self-regulation level compared to those who received financial support from parents (mean=3.60) and from education loan (mean=3.60).

**Student's status in family:** Students who lived with others (mean=3.65) tend to have higher self-regulation level compared to those who lived with parents (mean=3.60). However, there was no significant difference who they lived with.

**Parents' marital status:** Students who lived with both parents (mean=3.61) tend to have higher self-regulation level compared to those whose parents were separated (mean=3.61) However, there was no significant difference who they lived with.

**Father's occupation:** The findings showed that fathers' occupation had no effect on their children's self-regulation level. However, students whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.62) tend to have higher self-regulation level compared to those whose father worked as an agriculturist, daily employee and other occupation (mean=3.61).

**Mother's occupation:** The findings showed that mothers' occupation had no effect on their children's self-regulation level. However, students whose mother worked as an agriculturist, daily employee and other occupation (mean=3.61) tend to have higher self-regulation level compared to those whose mothers worked as a government servant, state enterprise employee and personal business owner (mean=3.60).

**Family monthly income:** Students who had a family monthly income of more than 20,000 baht (mean= 3.62) tend to have higher self-regulation level compared to those whose family monthly income was less than 20,000 baht (mean=3.60). However, there was no significant difference between levels of income.

**Father's education:** Students who had father's with educational level at the primary or less (mean=3.62) tend to have higher self-regulation level compared to those with fathers' educational level at high school or higher (mean=3.59). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers' educational level at the primary or less (mean=3.62) tend to have higher self-regulation level compared to those whose mothers' educational level at the high school or higher (mean=3.59). However, there was no significant difference between mothers' educational level.



Table 4.7

*T-test and Anova Analysis on Demographic Factors and Self-Regulation*

<b>Variables</b>	<b>N</b>	<b><math>\bar{x}</math></b>	<b>S.D.</b>	<b>t/F</b>	<b>Paired</b>
<b>Gender</b>					.13
Male	148	3.61	.42		
Female	421	3.61	.43		
<b>Age</b>					.17
18-20	477	3.61	.42		
21-22	75	3.60	.46		
23 up	11	3.54	.33		
<b>GPA</b>					.23
1.00-2.50	168	3.62	.46		
2.51-3.00	235	3.59	.42		
3.01-3.87	146	3.59	.39		
<b>Financial support</b>					1.83
Parents	381	3.60	.43		
Education Loan Fund	163	3.60	.38		
Other	8	3.89	.56		
<b>Student's status in family</b>					-.94
Living with parents	482	3.60	.42		
Living with other	84	3.65	.44		
<b>Parents' marital status</b>					.09
Living together	421	3.61	.41		
Parents separate	147	3.61	.46		
<b>Father's occupation</b>					.14
-Government servant/State enterprise employee/Personal business owner	158	3.62	.44		
-Agriculturist/Daily employee /other	398	3.61	.42		
<b>Mother's occupation</b>					-.22
-Government servant/State enterprise employee/Personal business owner	152	3.60	.42		
-Agriculturist / Daily employee/other	416	3.61	.42		
<b>Family monthly income</b>					-.42
Not over 20,000 baht	374	3.60	.42		
More than 20,000 baht	189	3.62	.43		
<b>Father's education</b>					.86
Primary or less than	308	3.62	.41		
High school or higher than	254	3.59	.44		
<b>Mother's education</b>					.88
Primary or less than	332	3.62	.41		
High school or higher than	236	3.59	.44		

#### 4.5.1.3 Demographic Factors and Motivation

Table 4.8 showed the analysis on demographic factors and motivation, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings found that students of different gender were not significantly different in their motivation. However, female students had higher mean on motivation (mean=4.01) compared to male (mean=3.97) students.

**Age:** Students whose ages were between 18-20 years (mean=4.01) had higher motivation level compared with students whose age were above 23 (mean=3.99) and who were between ages 21-22 years (mean=3.93). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 3.01-3.87 (mean=4.04) had higher motivation level compared to students who had GPA between 2.51-3.00 (mean=3.99) and 1.00-2.50 (mean=3.97). However, there was no significant difference between levels of GPA.

**Financial support:** The finding reported that students with different financial support were not significantly different in their motivation level. However, students who received financial support from other sources of funding (mean=4.14) tend to have higher motivation level compared to those who received financial support from education lone (mean=4.05) and from parents (mean=3.98).

**Student's status in family:** Students who lived with others (mean=4.04) tend to have higher motivation compared to those who lived with both parents (mean=3.99). However, there was no significant difference between who students lived with.

**Parents' marital status:** Students whose parents were separated (mean=4.00) tend to have higher motivation level compared to those who lived with both parents (mean=4.00). However, there was no significant difference who students lived with.

**Father's occupation:** The findings showed that fathers' occupation had no effect on their children's motivation level. However, students whose father worked as an agriculturist, daily employee and other occupation (mean=4.01) tend to have higher motivation level compared to those whose father worked as a government servant, state enterprise employee and personal business owner (mean=4.00).

**Mother's occupation:** Students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=4.01) tend to have higher motivation level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=4.00). However, there was no significant different between mother's occupation.

**Family monthly income:** Students who had a family monthly income of less than 20,000 baht (mean=4.01) tend to have higher motivation level compared to those whose family monthly income was more than 20,000 baht (mean= 3.99). However, there was no significant difference between levels of income.

**Father's education:** Students whose father's educational level was at primary or less (mean=4.04) tend to have higher motivation level compared to those who had father's educational level at high school or higher (mean=3.96). However, there was significant difference at .05.

**Mother's education:** Students whose mother's educational level was at the primary or less (mean= 4.02) tend to have higher motivation level compared to those whose mothers' educational level was at the high school or higher (mean=3.98). However, there was no significant difference between mothers' educational level.



Table 4.8

*T-test and Anova Analysis on Demographic Factors and Motivation*

Variables	N	$\bar{x}$	S.D.	t/F	Paired
<b>Gender</b>				-1.08	
Male	148	3.97	.48		
Female	421	4.01	.42		
<b>Age</b>				1.08	
18-20	477	4.01	.43		
21-22	75	3.93	.47		
23 up	11	3.99	.40		
<b>GPA</b>				1.18	
1.00-2.50	168	3.97	.45		
2.51-3.00	235	3.99	.43		
3.01-3.87	146	4.04	.43		
<b>Financial support</b>				2.09	
Parents	381	3.98	.43		
Education Loan Fund	163	4.05	.43		
Other	8	4.14	.56		
<b>Student's status in family</b>				-0.96	
Living with parents	482	3.99	.42		
Living with other	84	4.04	.49		
<b>Parents' marital status</b>				-0.04	
Living together	421	4.00	.41		
Parents separate	147	4.00	.49		
<b>Father's occupation</b>				-0.15	
-Government servant/State enterprise employee/Personal business owner	158	4.00	.46		
-Agriculturist/Daily employee/other	398	4.01	.42		
<b>Mother's occupation</b>				.39	
-Government servant/State enterprise employee/Personal business owner	152	4.01	.49		
-Agriculturist/Daily employee/other	416	4.00	.41		
<b>Family monthly income</b>				.31	
Not over 20,000 baht	374	4.01	.45		
More than 20,000 baht	189	3.99	.40		
<b>Father's education</b>				2.04*	
Primary or less than	308	4.04	.39		
High school or higher than	254	3.96	.48		
<b>Mother's education</b>				.96	
Primary or less than	332	4.02	.40		
High school or higher than	236	3.98	.48		

\*p&lt;0.5



#### 4.5.1.4 Demographic Factors and Empathy

Table 4.9 showed the analysis on demographic factors and empathy, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings reported that students of different gender were significantly different in their motivation at .05. However, female students had higher mean on empathy (mean=3.97) compared to male (mean=3.87).

**Age:** Students who were between ages 18-20 (mean=3.97) had higher empathy level compared with students who were between ages 21-22 years (mean=3.82) and who were above the age of 23 years (mean=3.77). When analysis with paired found the ages between 18-20 and 21-22 was significantly different at .01.

**GPA:** Students who obtained GPA between 3.01-3.87 (mean=4.01) had higher empathy level compared to students who had GPA between 1.00-2.50 (mean=3.93) and 2.51-3.00 (mean=3.90). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their empathy level. However, students who received financial support from other sources of funding (mean=4.18) tend to have higher empathy level compared to those who received financial support from education loan (mean=3.96) and from parents (mean=3.93).

**Student's status in family:** Students who lived with parents (mean=3.94) tend to have higher empathy level compared to those who lived with others (mean=3.92). However, there was no significant difference who they lived with.

**Parents' marital status:** Students who had dual parents (mean=3.95) tend to have higher empathy level compared to those whose parents were separated (mean=3.93). However, there was no significant difference who they lived with.

**Father's occupation:** The findings showed that fathers' occupation had no effect on their children's empathy level. However, students whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.96) tend to have higher empathy level compared to those whose father worked as an agriculturist, daily employee and other occupation (mean=3.94).

**Mother's occupation:** Similarly, mothers' occupation had no effect on their children's empathy level. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.98) tend to have higher empathy level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=3.93).

**Family monthly income:** Students who had a family monthly income of more than 20,000 baht (mean=3.98) tend to have higher empathy level compared to those whose family monthly income was less than 20,000 baht (mean=3.93). However, there was no significant difference between levels of income.

**Father's education:** Students whose fathers' educational level at the high school or higher (mean=3.95) tend to have higher empathy level compared to those with primary or less (mean=3.94). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at high school or higher (mean=3.95) tend to have higher empathy level compared to those whose mothers' educational level was at primary or less (mean=3.94). However, there was no significant difference between mothers' educational level.



Table 4.9

*T-test and Anova Analysis on Demographic Factors and Empathy*

<b>Variables</b>	<b>N</b>	<b><math>\bar{x}</math></b>	<b>S.D.</b>	<b>t/F</b>	<b>Paired</b>
<b>Gender</b>				-2.32*	
Male	148	3.87	.46		
Female	421	3.97	.45		
<b>Age</b>				4.12**	The different pair 18-20 and 21-22
18-20	477	3.97	.45		
21-22	75	3.82	.50		
23 up	11	3.77	.42		
<b>GPA</b>				2.42	
1.00-2.50	168	3.93	.46		
2.51-3.00	235	3.90	.45		
3.01-3.87	146	4.01	.48		
<b>Financial support</b>				1.37	
Parents	381	3.93	.47		
Education Loan Fund	163	3.96	.43		
Other	8	4.18	.47		
<b>Student's status in family</b>				.39	
Living with parents	482	3.94	.45		
Living with other	84	3.92	.50		
<b>Parents' marital status</b>				.33	
Living together	421	3.95	.45		
Parents separate	147	3.93	.48		
<b>Father's occupation</b>				.54	
-Government servant/State enterprise employee/Personal business owner	158	3.96	.48		
-Agriculturist/Daily employee /other	398	3.94	.45		
<b>Mother's occupation</b>				1.25	
-Government servant/State enterprise employee/Personal business owner	152	3.98	.49		
-Agriculturist / Daily employee/other	416	3.93	.44		
<b>Family monthly income</b>				-1.23	
Not over 20,000 baht	374	3.93	.46		
More than 20,000 baht	189	3.98	.46		
<b>Father's education</b>				-.05	
Primary or less than	308	3.94	.45		
High school or higher than	254	3.95	.48		
<b>Mother's education</b>				-.36	
Primary or less than	332	3.94	.45		
High school or higher than	236	3.95	.47		

\*p&lt;0.5, \*\*p&lt;.01

#### 4.5.1.5 Demographic Factors and Social Skill

Table 4.10 showed the analysis on demographic factors and social skill, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings found that students of different gender had significantly different social skills at .001. However, female students had higher mean on social skill (mean=3.82) compared to male (mean=3.65).

**Age:** Students who were between ages 18-20 years (mean=3.79) had higher social skill level compared with students who were between ages 21-22 years (mean=3.70) and who were above the age of 23 years (mean=3.51). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 3.01-3.87 (mean=3.80) had higher social skill level compared to students who had GPA between 1.00-2.50 (mean=3.78) and 2.51-3.00 (mean=3.74). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their social skill level. However, students who received financial support from other source of funding (mean=4.08) tend to have higher social skill level compared to those who received financial support from education loan (mean=3.77) and from parents (mean=3.76).

**Student's status in family:** Students who lived with others (mean=3.79) tend to have higher level of social skill compared to those who lived with parents (mean=3.77). However, there was no significant different between the status.

**Parents' marital status:** Students who lived with both parents (mean=3.78) tend to have higher social skill level compared to those whose parents were separated (mean=3.74). However, there was no significant difference with who they lived with.

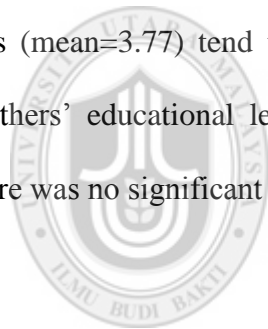
**Father's occupation:** The findings showed that different fathers' occupation had no significant effect on their children's social skill level. However, students whose father worked as an agriculturist, daily employee and other occupation (mean=3.78) tend to have higher social skill level compared to those whose father worked as government servant, state enterprise employee and personal business owner (mean=3.77).

**Mother's occupation:** The finding showed that mothers with different occupations were not significantly different towards their children's social skill. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.81) tend to have higher social skill level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=3.76).

**Family monthly income:** Students who had a family monthly income of more than 20,000 baht (mean=3.79) tend to have higher social skill level compared to those whose family monthly income was less than 20,000 baht (mean=3.76). However, there was no significant difference between levels of income.

**Father's education:** Students who had father's with educational level at the high school or higher (mean=3.78) tend to have higher social skill level compared to those with fathers' educational level at primary or less (mean=3.77). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at primary or less (mean=3.77) tend to have higher social skill level compared to those whose mothers' educational level was at high school or higher (mean=3.77). However, there was no significant difference between mothers' educational levels.



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Table 4.10

*T-test and Anova Analysis on Demographic Factors and Social Skill*

<b>Variables</b>	<b>N</b>	<b><math>\bar{x}</math></b>	<b>S.D.</b>	<b>t/F</b>	<b>Paired</b>
<b>Gender</b>					-3.58***
Male	148	3.65	.48		
Female	421	3.82	.49		
<b>Age</b>					2.67
18-20	477	3.79	.48		
21-22	75	3.70	.54		
23 up	11	3.51	.55		
<b>GPA</b>					.92
1.00-2.50	168	3.78	.50		
2.51-3.00	235	3.74	.48		
3.01-3.87	146	3.80	.50		
<b>Financial support</b>					1.64
Parents	381	3.76	.49		
Education Loan Fund	163	3.77	.50		
Other	8	4.08	.57		
<b>Student's status in family</b>					-.28
Living with parents	482	3.77	.47		
Living with other	84	3.79	.61		
<b>Parents' marital status</b>					1.00
Living together	421	3.78	.48		
Parents separate	147	3.74	.53		
<b>Father's occupation</b>					-.22
-Government servant/State enterprise employee/Personal business owner	158	3.77	.53		
-Agriculturist/Daily employee /other	398	3.78	.48		
<b>Mother's occupation</b>					.93
-Government servant/State enterprise employee/Personal business owner	152	3.81	.54		
-Agriculturist / Daily employee/other	416	3.76	.47		
<b>Family monthly income</b>					-.60
Not over 20,000 baht	374	3.76	.47		
More than 20,000 baht	189	3.79	.53		
<b>Father's education</b>					-.19
Primary or less than	308	3.77	.46		
High school or higher than	254	3.78	.54		
<b>Mother's education</b>					.04
Primary or less than	332	3.77	.45		
High school or higher than	236	3.77	.55		

\*\*\*p&lt;.001



## 4.5.2 Demographic Factors and Social Intelligence

### 4.5.2.1 Demographic Factors and Primal Empathy

Table 4.11 showed the analysis on demographic factors and primal empathy, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings found that students of different gender were not significantly different in their primal empathy. However, female students tend to have a higher level of primal empathy (mean=3.89) compared to male (mean=3.85) students.

**Age:** Students who were between ages 18-20 had higher primal empathy (mean=3.91) level compared with students who were between ages 21-22 years (mean=3.73) and who were above the age of 23 years (mean=3.69). However, there was significant different at .01.

**GPA:** Students who obtained GPA between 3.01-3.87 (mean=3.94) had higher primal empathy level compared to students who had GPA between 2.51-3.00 (mean=3.86) and 1.00-2.50 (mean=3.86). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their primal empathy level. However, students who received financial support from other sources of funding (mean=4.23) tend to have higher primal empathy level compared to those who received financial support from parents (mean=3.88) and from education loan (mean=3.87).

**Student's status in family:** Students who lived with others (mean=3.97) tend to have a higher level of primal empathy compared to those who lived with both parents (mean=3.86). However, there was no significant difference who they lived with.

**Parents' marital status:** Students whose parents were separated (mean=3.89) tend to have higher primal empathy level compared to those who lived with both parents (mean=3.88). However, there was no significant difference who they lived with.

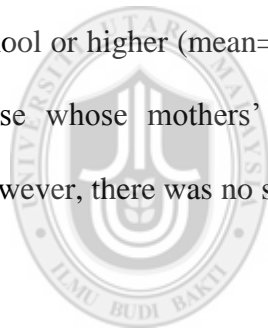
**Father's occupation:** The findings showed that different fathers' occupation have no effect on their children's primal empathy level. However, students whose fathers worked as a government servant, state enterprise employee and personal business owner (mean=3.94) tend to have higher primal empathy level compared to those whose father worked as an agriculturist, daily employee and other occupation (mean=3.86).

**Mother's occupation:** Similarly, mothers' occupation had no significant different in their children's primal empathy level. However, students whose mothers worked as a government servant, state enterprise employee and personal business owner (mean=3.90) tend to have higher primal empathy level compared to those whose mothers who worked as an agriculturist, daily employee and other occupation (mean=3.87).

**Family monthly income:** Students who had a family monthly income of more than 20,000 baht (mean=3.88) tend to have higher primal empathy level compared to those whose family monthly income was less than 20,000 baht (mean=3.88). However, there was no significant difference between levels of income.

**Father's education:** Students who had father's with educational level at the high school or higher (mean=3.89) tend to have higher primal empathy level compared to those whose fathers' educational level were at primary or less (mean=3.88). However, there was no significant difference between the fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at high school or higher (mean=3.90) tend to have higher primal empathy level compared to those whose mothers' educational level was at primary or less (mean=3.87). However, there was no significant difference.



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Table 4.11

*T-test and Anova Analysis on Demographic Factors and Primal Empathy*

<b>Variables</b>	<b>N</b>	<b>S.D.</b>	<b>t/F</b>	<b>Paired</b>
<b>Gender</b>			-0.82	
Male	148	3.85	0.55	
Female	421	3.89	0.47	
<b>Age</b>			4.93**	The different pair 18-20 and 21-22
18-20	477	3.91	0.49	
21-22	75	3.73	0.48	
23 up	11	3.69	0.66	
<b>GPA</b>			1.44	
1.00-2.50	168	3.86	0.53	
2.51-3.00	235	3.86	0.48	
3.01-3.87	146	3.94	0.5	
<b>Financial support</b>			1.98	
Parents	381	3.88	0.48	
Education Loan Fund	163	3.87	0.52	
Other	8	4.23	0.76	
<b>Student's status in family</b>			-1.88	
Living with parents	482	3.86	0.49	
Living with other	84	3.97	0.51	
<b>Parents' marital status</b>			0.37-	
Living together	421	3.88	0.49	
Parents separate	147	3.89	0.5	
<b>Father's occupation</b>			1.67	
-Government servant/State enterprise employee/Personal business owner	158	3.94	0.5	
-Agriculturist/Daily employee /other	398	3.86	0.49	
<b>Mother's occupation</b>			0.48	
-Government servant/State enterprise employee/Personal business owner	152	3.9	0.52	
-Agriculturist / Daily employee/other	416	3.87	0.49	
<b>Family monthly income</b>			0	
Not over 20,000 baht	374	3.88	0.48	
More than 20,000 baht	189	3.88	0.54	
<b>Father's education</b>			-0.27	
Primary or less than	308	3.88	0.48	
High school or higher than	254	3.89	0.52	
<b>Mother's education</b>			-0.86	
Primary or less than	332	3.87	0.47	
High school or higher than	236	3.9	0.53	

\*\*p&lt;0.1

#### 4.5.2.2 Demographic Factors and Attunement

Table 4.12 showed the analysis on demographic factors and attunement, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings showed that students of different gender were not significantly different in their attunement level. However, female students had higher level of attunement (mean=3.82) compared to male (mean=3.75) students.

**Age:** Students who were between ages 18-20 (mean=3.81) had higher attunement level compared with students who were above the age of 23 years (mean=3.75) and 21-22 years (mean=3.75). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 3.01-3.87 (mean=3.84) had higher attunement level compared to students who had GPA between 1.00-2.50 (mean=3.81) and 2.51-3.00 (mean=3.77). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their attunement level. However, students who received financial support from other sources of funding (mean=3.93) tend to have higher attunement level compared to those who received financial support from education loan (mean=3.86) and from parents (mean=3.78).

**Student's status in family:** Students who lived with both parents (mean=3.80) tend to have higher attainment level compared to those who lived with others (mean=3.78). However, there was no significant difference who they lived with.

**Parents' marital status:** Students whose parents were separated (mean=3.82) tend to have higher attainment level compared to those who lived with both parents (mean=3.80). However, there was no significant difference who they lived with.

**Father's occupation:** The findings showed that different fathers' occupation had no effect on their children's attainment level. However, students whose father worked as an agriculturist, daily employee and other occupation (mean=3.82) tend to have higher attainment level compared to those whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.77).

**Mother's occupation:** Similarly, mothers' occupation had no effect on their children's attainment level. However, students whose mother worked as an agriculturist, daily employee and other occupation (mean=3.81) tend to have higher attainment level compared to those who have mothers who worked as a government servant, state enterprise employee and personal business owner (mean=3.78).

**Family monthly income:** Students who had a family monthly income of less than 20,000 baht (mean=3.81) tend to have higher attainment level compared to those whose family monthly income was higher than 20,000 baht (mean=3.78). However, there was no significant difference between levels of income.

**Father's education:** Students who had father's with educational level at the primary or less (mean=3.81) tend to have higher attainment level compared to those whose fathers' educational level were at the high school or higher (mean=3.80). However, there was no significant difference between the fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at high school or higher (mean=3.81) tend to have higher attainment level compared to those whose mothers' educational level was at primary or less (mean=3.80). However, there was no significant difference between mothers' educational level.



Table 4.12

*T-test and Anova Analysis on Demographic Factors and Attunement*

Variables	N	$\bar{x}$	S.D.	t/F	Paired
<b>Gender</b>				-1.86	
Male	148	3.75	.43		
Female	421	3.82	.44		
<b>Age</b>				.77	
18-20	477	3.81	.43		
21-22	75	3.75	.48		
23 up	11	3.75	.29		
<b>GPA</b>				1.02	
1.00-2.50	168	3.81	.44		
2.51-3.00	235	3.77	.42		
3.01-3.87	146	3.84	.46		
<b>Financial support</b>				1.99	
Parents	381	3.78	.44		
Education Loan Fund	163	3.86	.41		
Other	8	3.93	.74		
<b>Student's status in family</b>				.57	
Living with parents	482	3.80	.44		
Living with other	84	3.78	.39		
<b>Parents' marital status</b>				-.63	
Living together	421	3.80	.43		
Parents separate	147	3.82	.45		
<b>Father's occupation</b>				-1.27	
-Government servant/State enterprise employee/Personal business owner	158	3.77	.42		
-Agriculturist/Daily employee /other	398	3.82	.44		
<b>Mother's occupation</b>				-.71	
-Government servant/State enterprise employee/Personal business owner	152	3.78	.40		
-Agriculturist / Daily employee/other	416	3.81	.45		
<b>Family monthly income</b>				.75	
Not over 20,000 baht	374	3.81	.44		
More than 20,000 baht	189	3.78	.45		
<b>Father's education</b>				.38	
Primary or less than	308	3.81	.43		
High school or higher than	254	3.80	.45		
<b>Mother's education</b>				-.22	
Primary or less than	332	3.80	.42		
High school or higher than	236	3.81	.46		



#### 4.5.2.3 Demographic Factors and Empathic Accuracy

Table 4.13 showed the analysis on demographic factors and empathic accuracy, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings found that students of different gender were not significantly different in their level of empathic accuracy. However, female students had higher level of empathic accuracy (mean=3.58) compared to male (mean=3.51) students.

**Age:** Students who were between ages 18-20 (mean=3.60) had higher empathic accuracy level compared with students who were between ages 21-22 years (mean=3.39) and who were above the age of 23 years (mean=3.26). However, there was significant difference at .001. When analyzed with paired found the ages between 18-20 and 21-22, 18-20 and 23 up were significant.

**GPA:** Students who obtained GPA between 3.01-3.87 (mean=3.60) had higher empathic accuracy level compared to students with GPA between 1.00-2.50 (mean=3.57) and 2.51-3.00 (mean=3.53). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their empathic accuracy level. However, students who received financial support from other sources of funding (mean=3.92) tend to have higher empathic accuracy level compared to those who received financial support from education loan (mean=3.58) and from both parents (mean=3.55).

**Student's status in family:** Students who lived with others (mean=3.59) tend to have higher empathic accuracy level compared to those who lived with both parents (mean=3.56). However, there was no significant difference who they lived with.

**Parents' marital status:** Students who lived with both parents (mean=3.57) tend to have higher empathic accuracy level compared to those whose parents were separated (mean=3.53) However, there was no significant difference who they lived with.

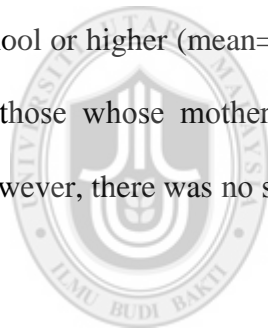
**Father's occupation:** The findings showed that different fathers' occupation had no effect on their children's empathic accuracy level. However, students whose father worked as an agriculturist, daily employee and other occupation (mean=3.58) tend to have higher empathic accuracy level compared to those whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.53).

**Mother's occupation:** The findings showed that different mothers' occupation had no effect on their children's empathic accuracy level. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.57) tend to have higher empathic accuracy level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=3.56).

**Family monthly income:** Students who had a family monthly income less than 20,000 baht (mean=3.57) tend to have higher empathic accuracy level compared to those whose family monthly income was more than 20,000 baht (mean=3.54). However, there was no significant difference between the levels of income.

**Father's education:** Students who had father's with educational level at the high school or higher (mean=3.57) tend to have higher empathic accuracy level compared to those with fathers' educational level at primary or less (mean=3.56). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at high school or higher (mean=3.57) tend to have higher empathic accuracy level compared to those whose mothers' educational level was at primary or less (mean=3.56). However, there was no significant difference between mothers' educational level.



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Table 4.13

*T-test and Anova Analysis on Demographic Factors and Empathic Accuracy*

<b>Variables</b>	<b>N</b>	<b><math>\bar{x}</math></b>	<b>S.D</b>	<b>t/F</b>	<b>Paired</b>
<b>Gender</b>				-1.38	
Male	147	3.51	.53		
Female	421	3.58	.46		
<b>Age</b>				8.90***	The different pair 18-20 and 21-22, 18-20 and 23 & above
18-20	476	3.60	.47		
21-22	75	3.39	.49		
23 up	11	3.26	.55		
<b>GPA</b>				.93	
1.00-2.50	167	3.57	.50		
2.51-3.00	235	3.53	.47		
3.01-3.87	146	3.60	.46		
<b>Financial support</b>				2.64	
Parents	381	3.55	.49		
Education Loan Fund	163	3.58	.46		
Other	8	3.92	.64		
<b>Student's status in family</b>				-.58	
Living with parents	481	3.56	.48		
Living with other	84	3.59	.50		
<b>Parents' marital status</b>				.98	
Living together	420	3.57	.48		
Parents separate	147	3.53	.49		
<b>Father's occupation</b>				-1.11	
-Government servant/State enterprise employee/Personal business owner	157	3.53	.49		
-Agriculturist/Daily employee /other	398	3.58	.48		
<b>Mother's occupation</b>				.25	
-Government servant/State enterprise employee/Personal business owner	152	3.57	.50		
-Agriculturist / Daily employee/other	415	3.56	.48		
<b>Family monthly income</b>				.76	
Not over 20,000 baht	374	3.57	.48		
More than 20,000 baht	188	3.54	.49		
<b>Father's education</b>				-.09	
Primary or less than	308	3.56	.46		
High school or higher than	253	3.57	.51		
<b>Mother's education</b>				-.30	
Primary or less than	332	3.56	.44		
High school or higher than	235	3.57	.53		

\*\*\*P&lt;.001

#### 4.5.2.4 Demographic Factors and Social Cognition

Table 4.14 showed the analysis on demographic factors and social cognition, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings found that students of different gender were significantly different at .01. Female students had higher level of social cognition (mean=3.89) compared to male (mean=3.76) students.

**Age:** Students who were between ages 18-20 years (mean=3.88) had higher social cognition level compared with students who were above the age of 23 (mean=3.77) and who were between ages 21-22 years (mean=3.70). However, there was significant difference at .01. Analysis with paired found the ages between 18-20 and 21-22 to be significant.

**GPA:** Students who obtained GPA between 3.01-3.87 (mean=3.89) had higher social cognition level compared to students who had GPA between 1.00-2.50 (mean=3.86) and 2.51-3.00 (mean=3.82). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their social cognition level. However, students who received financial support from other sources of funding (mean=3.98) tend to have higher social cognition level compared to those who received financial support from education loan (mean=3.88) and from both parents (mean=3.85).

**Student's status in family:** Students who lived with others (mean=3.90) tend to have higher level of social cognition compared to those who lived with both parents (mean=3.84). However, there was no significant difference who they lived with.

**Parents' marital status:** Students who lived with both parents (mean=3.87) tend to have higher social cognition level compared to students whose parents were separated (mean=3.80). However, there was no significant difference who they lived with.

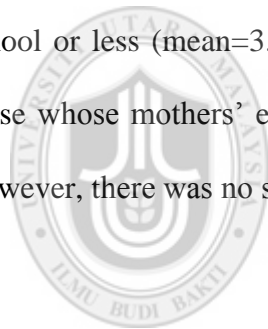
**Father's occupation:** The findings showed that different fathers' occupation had no effect on their children social cognition level. However, students whose father worked as an agriculturist, daily employee and other occupation (mean=3.86) tend to have higher social cognition level compared to those whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.86).

**Mother's occupation:** The findings showed that mothers' occupation was not significant. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.89) tend to have higher social cognition level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=3.84).

**Family monthly income:** Students who had a family monthly income of less than 20,000 baht (mean=3.86) tend to have higher social cognition level compared to those whose family monthly income was more than 20,000 baht (mean=3.84). However, there was no significant difference between levels of income.

**Father's education:** Students who had father's with educational level at the primary school or less (mean=3.89) tend to have higher social cognition level compared to those with fathers' educational level at high school or higher (mean=3.82). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at primary school or less (mean=3.88) tend to have higher social cognition level compared to those whose mothers' educational level was at high school or higher (mean=3.82). However, there was no significant difference between mothers' educational level.



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Table 4.14

*T-test and Anova Analysis on Demographic Factors and Social Cognition*

<b>Variables</b>	<b>N</b>	<b><math>\bar{x}</math></b>	<b>S.D.</b>	<b>t/F</b>	<b>Paired</b>
<b>Gender</b>				-3.00**	
Male	147	3.76	.48		
Female	421	3.89	.46		
<b>Age</b>				5.10**	The different pair 18-20 and 21-22
18-20	476	3.88	.46		
21-22	75	3.70	.50		
23 up	11	3.77	.47		
<b>GPA</b>				1.09	
1.00-2.50	167	3.86	.48		
2.51-3.00	235	3.82	.45		
3.01-3.87	146	3.89	.47		
<b>Financial support</b>				.53	
Parents	381	3.85	.48		
Education Loan Fund	163	3.88	.44		
Other	8	3.98	.67		
<b>Student's status in family</b>				-1.00	
Living with parents	481	3.84	.46		
Living with other	84	3.90	.49		
<b>Parents' marital status</b>				1.72	
Living together	420	3.87	.45		
Parents separate	147	3.80	.52		
<b>Father's occupation</b>				-.15	
-Government servant/State enterprise employee/Personal business owner	157	3.86	.50		
-Agriculturist/Daily employee /other	398	3.86	.45		
<b>Mother's occupation</b>				1.19	
-Government servant/State enterprise employee/Personal business owner	152	3.89	.48		
-Agriculturist / Daily employee/other	415	3.84	.46		
<b>Family monthly income</b>				.51	
Not over 20,000 baht	374	3.86	.45		
More than 20,000 baht	188	3.84	.50		
<b>Father's education</b>				1.48	
Primary or less than	308	3.89	.45		
High school or higher than	253	3.83	.48		
<b>Mother's education</b>				1.56	
Primary or less than	332	3.88	.45		
High school or higher than	235	3.82	.48		

\*\*p&lt;.01



#### 4.5.2.5 Demographic Factors and Synchrony

Table 4.15 showed the analysis on demographic factors and synchrony, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings found that students of different gender were not significantly different in their synchrony level. However, female students had higher synchrony level, (mean=3.86) compared to male (mean=3.79) students.

**Age:** Students who were between the ages 18-20 years (mean=3.85) had higher synchrony level compared with students who were above the age of 23 (mean=3.83) and 21-22 years (mean=3.79). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 3.01-3.87 (mean=3.84) had higher synchrony level compared to students who had GPA between 1.00-2.50 (mean=3.84) and 2.51-3.00 (mean=3.83). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their synchrony level. However, students who received financial support from other sources of fund (mean=3.98) tend to have higher level of synchrony compared to those who received financial support from education loan (mean=3.89) and from both parents (mean=3.82).

**Student's status in family:** Students who lived with others (mean=3.89) tend to have higher synchrony level compared to those who lived with both parents (mean=3.83). However, there was no significant difference who they lived with.

**Parents' marital status:** Students who lived with both parents (mean=3.87) tend to have higher synchrony level compared to those whose parents were separated (mean=3.77). However, there was significant difference at .01.

**Father's occupation:** The findings showed that different fathers' occupation had no effect on their children's synchrony level. However, students whose father worked as an agriculturist, daily employee and other occupation (mean=3.85) tend to have higher synchrony level compared to those whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.82).

**Mother's occupation:** The findings showed that different mothers' occupation had no effect on their children's synchrony level. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.85) tend to have higher synchrony level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=3.84).

**Family monthly income:** Students who had a family monthly income of more than 20,000 baht (mean=3.85) tend to have higher synchrony level compared to those whose family monthly income was less than 20,000 baht (mean=3.84). However, there was no significant difference between the levels of income.

**Father's education:** Students who had father's with educational level at the primary school or less (mean=3.85) tend to have higher synchrony level compared to those with fathers' educational level at high school or higher (mean=3.84). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at high school or higher (mean=3.84) tend to have higher synchrony level compared to those whose mothers' educational level was at primary or less (mean=3.84). However, there was no significant difference between mothers' educational level.



Table 4.15

*T-test and Anova Analysis on Demographic Factors and Synchrony*

Variables	N	$\bar{x}$	S.D.	t/F	Paired
<b>Gender</b>				-1.65	
Male	148	3.79	.47		
Female	421	3.86	.44		
<b>Age</b>				.39	
18-20	477	3.85	.44		
21-22	75	3.79	.53		
23 up	11	3.83	.39		
<b>GPA</b>				.01	
1.00-2.50	168	3.84	.49		
2.51-3.00	235	3.83	.43		
3.01-3.87	146	3.84	.44		
<b>Financial support</b>				1.67	
Parents	381	3.82	.46		
Education Loan Fund	163	3.89	.40		
Other	8	3.98	.61		
<b>Student's status in family</b>				-1.14	
Living with parents	482	3.83	.45		
Living with other	84	3.89	.45		
<b>Parents' marital status</b>				2.36**	
Living together	421	3.87	.44		
Parents separate	147	3.77	.46		
<b>Father's occupation</b>				-.70	
-Government servant/State enterprise employee/Personal business owner	158	3.82	.47		
-Agriculturist/Daily employee /other	398	3.85	.44		
<b>Mother's occupation</b>				.25	
-Government servant/State enterprise employee/Personal business owner	152	3.85	.48		
-Agriculturist / Daily employee/other	416	3.84	.44		
<b>Family monthly income</b>				-.16	
Not over 20,000 baht	374	3.84	.44		
More than 20,000 baht	189	3.85	.48		
<b>Father's education</b>				.29	
Primary or less than	308	3.85	.43		
High school or higher than	254	3.84	.47		
<b>Mother's education</b>				-.02	
Primary or less than	332	3.84	.43		
High school or higher than	236	3.84	.47		

\*\*p&lt;.01

#### 4.5.2.6 Demographic Factors and Self-Presentation

Table 4.16 showed the analysis on demographic factors and self-presentation, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings found that students of different gender were not significantly different in their self-presentation. However, male students had higher mean on self-presentation (mean=3.94) compared to female (mean=3.93) students.

**Age:** Students who were above the age of 23 years (mean=4.00) had higher self-presentation level compared with students who were between ages 18-20 years (mean=3.94) and 21-22 years (mean=3.89). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 1.00-2.50 (mean=3.99) had higher self-presentation level compared to students who had GPA between 3.01-3.87 (mean=3.94) and 2.51-3.00 (mean=3.87). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their self-presentation level. However, students who received financial support from other source of funding (mean=4.28) tend to have higher self-presentation level compared to those who received financial support from both parents (mean=3.93) and from education loan (mean=3.92).

**Student's status in family:** Students who lived with both parents (mean=3.94) tend to have higher self-presentation level compared to those who lived with others (mean=3.91). However, there was no significant difference who they lived with.

**Parents' marital status:** Students who lived with both parents (mean=3.95) tend to have higher self-presentation level compared to those whose parents were separated (mean=3.89). However, there was no significant difference who they lived with.

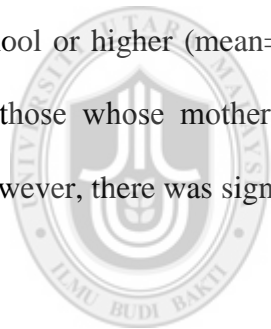
**Father's occupation:** The findings showed that different fathers' occupation had no effect on their children's self-presentation level. However, students whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.99) tend to have higher self-presentation level compared to those whose father worked as an agriculturist, daily employee and other occupation (mean=3.92).

**Mother's occupation:** Similarly, mothers' occupation had no effect on their children's self-presentation level. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.95) tend to have higher self-presentation level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=3.92).

**Family monthly income:** Students who had a family monthly income of more than 20,000 baht (mean=3.97) tend to have higher self-presentation level compared to those whose family monthly income was less than 20,000 baht (mean=3.92). However, there was no significant difference between the levels of income.

**Father's education:** Students who had father's with educational level at the primary or less (mean=3.94) tend to have higher self-presentation level compared to those with fathers' educational level at high school or higher (mean=3.93). However, there was no significant difference between fathers' educational level.

**Mother's education:** Students who had mothers with educational level at high school or higher (mean=3.98) tend to have higher self-presentation level compared to those whose mothers' educational level was at primary or less (mean=3.90). However, there was significant difference at .05.



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Table 4.16

*T-test and Anova Analysis on Demographic Factors and Self-Presentation*

Variables	N	$\bar{x}$	S.D.	t/F	Paired
<b>Gender</b>					.18
Male	148	3.94	.52		
Female	421	3.93	.47		
<b>Age</b>					.31
18-20	477	3.94	.47		
21-22	75	3.89	.58		
23 up	11	4.00	.54		
<b>GPA</b>					2.80
1.00-2.50	168	3.99	.50		
2.51-3.00	235	3.87	.47		
3.01-3.87	146	3.94	.49		
<b>Financial support</b>					.68
Parents	381	3.93	.48		
Education Loan Fund	163	3.92	.46		
Other	8	4.28	.86		
<b>Student's status in family</b>					.42
Living with parents	482	3.94	.49		
Living with other	84	3.91	.47		
<b>Parents' marital status</b>					1.24
Living together	421	3.95	.47		
Parents separate	147	3.89	.54		
<b>Father's occupation</b>					1.40
-Government servant/State enterprise employee/Personal business owner	158	3.99	.52		
-Agriculturist/Daily employee /other	398	3.92	.47		
<b>Mother's occupation</b>					.49
-Government servant/State enterprise employee/Personal business owner	152	3.95	.50		
-Agriculturist / Daily employee/other	416	3.93	.48		
<b>Family monthly income</b>					-1.19
Not over 20,000 baht	374	3.92	.48		
More than 20,000 baht	189	3.97	.50		
<b>Father's education</b>					.15
Primary or less than	308	3.94	.45		
High school or higher than	254	3.93	.53		
<b>Mother's education</b>					-1.97*
Primary or less than	332	3.90	.47		
High school or higher than	236	3.98	.51		

\*p&lt;.05



#### 4.5.2.7 Demographic Factors and Influence

Table 4.17 showed the analysis on demographic factors and influence, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings found that students of different gender were not significantly different in their influence level. However, female students had higher influence level (mean=3.53) compared to male (mean=3.51).

**Age:** Students who were above the age of 23 (mean=3.59) had higher influence level compared with students who were between ages 18-20 years (mean=3.53) and 21-22 years (mean=3.48). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 1.00-2.50 (mean=3.57) had higher influence level compared to students who had GPA between 2.51-3.00 (mean=3.50) and 3.01-3.87 (mean=3.50). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were significantly different at .01. However, students who received financial support from other source of funding (mean=3.98) tend to have higher influence level compared to those who received financial support from both parents (mean=3.52) and from education loan (mean=3.51).

**Student's status in family:** Students who lived with others (mean=3.56) tend to have higher influence level compared to those who lived with both parents (mean=3.51). However, there was no significant difference who they lived with.

**Parents' marital status:** Students whose parents were separated (mean=3.52) tend to have higher influence level compared to those who lived with both parents (mean=3.52). However, there was no significant difference who they lived with.

**Father's occupation:** The findings showed that different fathers' occupation had no effect on their children's influence level. However, students whose father worked as an agriculturist, daily employee and other occupation (mean=3.53) tend to have higher influence level compared to those whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.52).

**Mother's occupation:** The findings showed that different mothers' occupation had no effect on their children's influence level. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.54) tend to have higher influence level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=3.52).

**Family monthly income:** Students who had a family monthly income of more than 20,000 baht (mean=3.53) tend to have higher influence level compared to those whose family monthly income was less than 20,000 baht (mean=3.52). However, there was no significant difference between the levels of income.

**Father's education:** Students who had father's with educational level at the primary school or less (mean=3.53) tend to have higher influence level compared to those with fathers' educational level at the high school or higher (mean=3.52). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at the high school or higher (mean=3.56) tend to have higher influence level compared to those whose mothers' educational level at the primary or less (mean=3.50). However, there was no significant difference between the mothers' educational levels.



Table 4.17

*T-test and Anova Analysis on Demographic Factors and Influence*

Variables	N	$\bar{x}$	S.D.	t/F	Paired
<b>Gender</b>					
Male	148	3.51	.42		
Female	421	3.53	.43		
<b>Age</b>					
18-20	477	3.53	.43		
21-22	75	3.48	.41		
23 up	11	3.59	.50		
<b>GPA</b>					
1.00-2.50	168	3.57	.44		
2.51-3.00	235	3.50	.44		
3.01-3.87	146	3.50	.40		
<b>Financial support</b>					
Parents	381	3.52	.44		
Education Loan Fund	163	3.51	.39		
Other	8	3.98	.57		
<b>Student's status in family</b>					
Living with parents	482	3.51	.43		
Living with other	84	3.56	.43		
<b>Parents' marital status</b>					
Living together	421	3.52	.43		
Parents separate	147	3.52	.42		
<b>Father's occupation</b>					
-Government servant/State enterprise employee/Personal business owner	158	3.52	.43		
-Agriculturist/Daily employee /other	398	3.53	.43		
<b>Mother's occupation</b>					
-Government servant/State enterprise employee/Personal business owner	152	3.54	.43		
-Agriculturist / Daily employee/other	416	3.52	.43		
<b>Family monthly income</b>					
Not over 20,000 baht	374	3.52	.43		
More than 20,000 baht	189	3.53	.42		
<b>Father's education</b>					
Primary or less than	308	3.53	.38		
High school or higher than	254	3.52	.48		
<b>Mother's education</b>					
Primary or less than	332	3.50	.40		
High school or higher than	236	3.56	.47		

\*\*p&lt;.01

#### 4.5.2.8 Demographic Factors and Concern

Table 4.18 showed the analysis on demographic factors and concern, using T-test (Independent Group) and One-way Anova. The results are as follows:

**Gender:** The findings related that students of different gender were significantly different at .01. However, female students had higher level on concern (mean=3.88) compared to male (mean=3.75).

**Age:** Students who were above the age of 23 (mean=3.88) had higher concern level compared with students who were between ages 18-20 years (mean=3.86) and 21-22 years (mean=3.78). However, there was no significant difference between the ages.

**GPA:** Students who obtained GPA between 2.51-3.00 (mean=3.86) had higher concern level compared to students who had GPA between 1.00-2.50 (mean=3.85) and 3.01-3.87 (mean=3.84). However, there was no significant difference between the levels of GPA.

**Financial support:** The study found that students with different financial support were not significantly different in their concern level. However, students who received financial support from other sources of funding (mean=3.96) tend to have higher concern level compared to those who received financial support from education loan (mean=3.89) and from both parents (mean=3.83).

**Student's status in family:** Students who lived with both parents (mean=3.85) tend to have higher concern level compared to those who lived with others (mean=3.83). However, there was no significant difference who they lived with.

**Parents' marital status:** Students who lived with both parents (mean=3.87) tend to have higher concern level compared to those whose parents were separated (mean=3.79). However, there was no significant difference who they lived with.

**Father's occupation:** The findings showed that different fathers' occupation had no effect on their children's concern level. However, students whose father worked as an agriculturist, daily employee and other occupation (mean=3.87) tend to have higher concern level compared to those whose father worked as a government servant, state enterprise employee and personal business owner (mean=3.82).

**Mother's occupation:** The findings showed that different mothers' occupation had no effect on their children's concern level. However, students whose mother worked as a government servant, state enterprise employee and personal business owner (mean=3.85) tend to have higher concern level compared to those who had mothers who worked as an agriculturist, daily employee and other occupation (mean=3.85).

**Family monthly income:** Students who had a family monthly income of more than 20,000 baht (mean=3.86) tend to have higher concern level compared to those whose family monthly income was less than 20,000 baht (mean=3.85). However, there was no significant difference between the levels of income.

**Father's education:** Students who had father's with educational level at the high school or higher (mean=3.86) tend to have higher concern level compared to those with fathers' educational level at primary school or less (mean=3.85). However, there was no significant difference between fathers' educational levels.

**Mother's education:** Students who had mothers with educational level at high school or higher (mean=3.85) tend to have higher concern level compared to those whose mothers' educational level was at primary or less (mean=3.85,  $t=0.09$ ).



Table 4.18

*T-test and Anova Analysis on Demographic Factors and Concern*

Variables	N	$\bar{x}$	S.D.	t/F	Paired
<b>Gender</b>				-3.11**	
Male	148	3.75	.47		
Female	421	3.88	.43		
<b>Age</b>				1.15	
18-20	477	3.86	.44		
21-22	75	3.78	.49		
23 up	11	3.88	.54		
<b>GPA</b>				.05	
1.00-2.50	168	3.85	.46		
2.51-3.00	235	3.86	.44		
3.01-3.87	146	3.84	.44		
<b>Financial support</b>				1.27	
Parents	381	3.83	.45		
Education Loan Fund	163	3.89	.42		
Other	8	3.96	.70		
<b>Student's status in family</b>				.43	
Living with parents	482	3.85	.43		
Living with other	84	3.83	.50		
<b>Parents' marital status</b>				1.82	
Living together	421	3.87	.42		
Parents separate	147	3.79	.49		
<b>Father's occupation</b>				-1.09	
-Government servant/State enterprise employee/Personal business owner	158	3.82	.46		
-Agriculturist/Daily employee /other	398	3.87	.44		
<b>Mother's occupation</b>				.03	
-Government servant/State enterprise employee/Personal business owner	152	3.85	.47		
-Agriculturist / Daily employee/other	416	3.85	.43		
<b>Family monthly income</b>				-.24	
Not over 20,000 baht	374	3.85	.44		
More than 20,000 baht	189	3.86	.45		
<b>Father's education</b>				-.02	
Primary or less than	308	3.85	.43		
High school or higher than	254	3.86	.46		
<b>Mother's education</b>				-.09	
Primary or less than	332	3.85	.43		
High school or higher than	236	3.85	.46		

\*\*p&lt;.01



### **4.5.3 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour**

#### **4.5.3.1 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Attitude)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.19, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.03 indicating that 3 percent of attitude (strategic learning behaviour) was explained by the demographic variables. However, from the first regression model, it was observed that demographic variables did not have significant influence on attitude (strategic learning behaviour).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 13 percent. The  $R^2$  change (.10) was significant. This implies that the additional 10 percent of the variation in attitude (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, only one from the emotional intelligence dimension was found to have a positive influence on attitude (strategic learning behaviour), (social skill,  $\beta=.13$ ,  $p<.05$ ). However, the social intelligence dimension was found to have a positive influence on attitude (strategic learning behaviour), (self-presentation,  $\beta=.16$ ,  $p<.01$ ) and (concern,  $\beta=.11$ ,  $p<.05$ ) Meanwhile, the social intelligence dimension was found to have a negative influence on attitude (strategic learning behaviour) (empathy accuracy,  $\beta= -.13$ ,  $p<.05$ ).

Table 4.19

*Result of Hierarchical Regression Analysis: Dependent Variable: Attitude*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
gender	-.07	-.03	1.31
age	.03	.01	1.24
GPA	-.02	-.02	1.08
Financial support	.07	.06	1.20
Status in student family	-.08	-.08	1.17
Parents' marital status	.04	.01	1.19
Father's education	.06	.05	1.57
Mother's education	-.02	.00	1.58
Father's occupation	-.02	-.02	1.65
Mother's occupation	-.07	-.07	1.47
Family monthly income	.04	.04	1.16
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.02	1.44
-Self-regulation		-.03	1.35
-Motivation		-.02	1.37
-Empathy		-.11	2.51
-Social skill		.13*	2.63
<b>Social Intelligence</b>			
-Primal empathy		.04	1.95
-Attunement		.02	1.49
-Empathy accuracy		-.13*	1.98
-Social cognition		.02	2.16
-Synchrony		.09	2.09
-Self-presentation		.16**	1.77
-Influence		.02	1.78
-Concern		.11*	1.95
<b>R Square</b>	<b>.03</b>	<b>.13</b>	
<b>Adjusted R Square</b>	<b>.00</b>	<b>.09</b>	
<b>R Square Change</b>	<b>.03</b>	<b>.10</b>	
<b>F Value</b>	<b>1.12</b>	<b>2.92***</b>	

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001

#### **4.5.3.2 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Motivation)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.20, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.03 indicating that 3 percent of motivation (strategic learning behaviour) was explained by the demographic variables. However, from the first regression model, it was observed that demographic variables did not have significant influence on motivation (strategic learning behaviour).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 16 percent. The  $R^2$  change (.14) was significant. This implies that the additional 14 percent of the variation in motivation (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, no variables from the emotional and social intelligence was found to have a positive or negative influence on motivation (strategic learning behaviour)

Table 4.20

*Result of Hierarchical Regression Analysis: Dependent Variable: Motivation*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
Gender	-.04	-.01	1.31
age	.04	.06	1.24
GPA	.05	.05	1.08
Financial support	.01	-.01	1.20
Status in student family	-.05	-.03	1.17
Parents' marital status	.08	.06	1.19
Father's education	.01	-.01	1.57
Mother's education	-.03	-.02	1.58
Father's occupation	.05	.06	1.65
Mother's occupation	-.05	-.08	1.47
Family monthly income	.12	.12	1.16
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.07	1.44
-Self-regulation		-.10	1.35
-Motivation		-.04	1.37
-Empathy		.06	2.51
-Social skill		.12	2.63
<b>Social Intelligence</b>			
Primal empathy		.00	1.95
Attunement		-.04	1.49
Empathy accuracy		.02	1.98
Social cognition		.09	2.16
Synchrony		.04	2.09
Self-presentation		.10	1.77
Influence		.11	1.78
Concern		.00	1.95
<b>R Square</b>	<b>.03</b>	<b>.16</b>	
<b>Adjusted R Square</b>	<b>.00</b>	<b>.12</b>	
<b>R Square Change</b>	<b>.03</b>	<b>.14</b>	
<b>F Value</b>	<b>1.18</b>	<b>3.82***</b>	

\*\*\*p<.001

#### **4.5.3.3 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Anxiety)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.21, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.04 indicating that 4 percent of anxiety (strategic learning behaviour) was explained by the demographic variables. However, from the first regression model, it was observed that demographic variables (gender) had significant influence at .001 on anxiety (strategic learning behaviour) and it was positively related to strategic learning behaviour (anxiety).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 9 percent. The  $R^2$  change (.05) was significant. This implies that the additional 5 percent of the variation in anxiety (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, no variable from the emotional intelligence dimension was found to have a positive influence on anxiety (strategic learning behaviour). Meanwhile, the emotional intelligence dimension was found to have a negative influence on anxiety (strategic learning behaviour) (empathy,  $\beta = -.16$ ,  $p < .05$ ). On the other hand, the social intelligence dimension was found to have a positive influence on anxiety (strategic learning behaviour), (empathy accuracy,  $\beta = .12$ ,  $p < .05$ )

Table 4.21

*Result of Hierarchical Regression Analysis: Dependent Variable: Anxiety*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
gender	.17***	.15**	1.31
age	-.02	-.01	1.24
GPA	-.07	-.07	1.08
Financial support	-.03	-.03	1.20
Status in student family	-.01	.01	1.17
Parents' marital status	-.02	-.03	1.19
Father's education	.02	.03	1.57
Mother's education	.05	.04	1.58
Father's occupation	.03	.04	1.65
Mother's occupation	-.01	-.01	1.47
Family monthly income	-.01	-.02	1.16
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		-.04	1.44
-Self-regulation		-.02	1.35
-Motivation		-.04	1.37
-Empathy		-.16*	2.51
-Social skill		-.06	2.63
<b>Social Intelligence</b>			
-Primal empathy		.11	1.95
-Attunement		.01	1.49
-Empathy accuracy		.12*	1.98
-Social cognition		-.02	2.16
-Synchrony		.07	2.09
-Self-presentation		-.11	1.77
-Influence		-.05	1.78
-Concern		.01	1.95
<b>R Square</b>	<b>.04</b>	<b>.09</b>	
<b>Adjusted R Square</b>	<b>.02</b>	<b>.04</b>	
<b>R Square Change</b>	<b>.04</b>	<b>.05</b>	
<b>F Value</b>	<b>1.71</b>	<b>1.96**</b>	

\*p<.05, \*\*p<.01

#### **4.5.3.4 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Time Management)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.22, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.02 indicating that 2 percent of time management (strategic learning behaviour) was explained by the demographic variables. However, from the first regression model, it was observed that demographic variables had no significant influence on time management (strategic learning behaviour).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 23 percent. The  $R^2$  change (.21) was significant. This implies that the additional 21 percent of the variation in time management (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, no variable from the emotional intelligence dimension was found to have a positive or negative influence on time management (strategic learning behaviour). However, the social intelligence dimension was found to have a positive influence on time management (strategic learning behaviour), (social cognition,  $\beta=.22$ ,  $p<.001$ ) and (concern,  $\beta=.19$ ,  $p<.001$ ).

Table 4.22

*Result of Hierarchical Regression Analysis: Dependent Variable: Time management*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
gender	-.03	.03	1.31
age	.04	.04	1.24
GPA	.07	.05	1.08
Financial support	.04	.02	1.20
Status in student family	-.01	.01	1.17
Parents' marital status	.06	.02	1.19
Father's education	.03	.02	1.57
Mother's education	-.02	-.01	1.58
Father's occupation	-.04	-.02	1.65
Mother's occupation	-.01	-.04	1.47
Family monthly income	.05	.04	1.16
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.00	1.44
-Self-regulation		.02	1.35
-Motivation		.02	1.37
-Empathy		-.04	2.51
-Social skill		.06	2.63
<b>Social Intelligence</b>			
-Primal empathy		.04	1.95
-Attunement		-.01	1.49
-Empathy accuracy		-.01	1.98
-Social cognition		.22***	2.16
-Synchrony		.07	2.09
-Self-presentation		-.03	1.77
-Influence		.09	1.78
-Concern		.19***	1.95
<b>R Square</b>	<b>.02</b>	<b>.23</b>	
<b>Adjusted R Square</b>	<b>.00</b>	<b>.19</b>	
<b>R Square Change</b>	<b>.02</b>	<b>.21</b>	
<b>F Value</b>	<b>.80</b>	<b>5.93***</b>	

\*\*\*p<.001



#### **4.5.3.5 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Concentration)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.23, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.01 indicating that 1 percent of concentration (strategic learning behaviour) was explained by the demographic variables. However, from the first regression model, it was observed that demographic variables had no significant influence on concentration (strategic learning behaviour).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 20 percent. The  $R^2$  change (.19) was significant. This implies that the additional 19 percent of the variation in concentration (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, only one from the emotional intelligence dimension was found to have a positive influence on concentration (strategic learning behaviour), (self-regulation,  $\beta=.12$ ,  $p<.05$ ). However, the social intelligence dimension was found to have a positive influence on concentration (strategic learning behaviour), (empathy accuracy,  $\beta=.26$ ,  $p<.001$ ) and (influence,  $\beta=.16$ ,  $p<.01$ ). Meanwhile, the social intelligence dimension was found to have a negative influence on concentration (strategic learning behaviour) (self-presentation,  $\beta= -.11$ ,  $p<.05$ )

Table 4.23

*Result of Hierarchical Regression Analysis: Dependent Variable: Concentration*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
Gender	-.02	.00	1.31
Age	-.05	-.03	1.24
GPA	-.03	-.02	1.08
Financial support	.05	.02	1.20
Status in student family	.02	.03	1.17
Parents' marital status	.02	.02	1.19
Father's education	.01	.01	1.57
Mother's education	-.01	-.01	1.58
Father's occupation	.00	.04	1.65
Mother's occupation	.01	-.01	1.47
Family monthly income	.04	.02	1.16
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.05	1.44
-Self-regulation		.12*	1.35
-Motivation		-.07	1.37
-Empathy		-.05	2.51
-Social skill		.08	2.63
<b>Social Intelligence</b>			
-Primal empathy		.04	1.95
-Attunement		.08	1.49
-Empathy accuracy		.26***	1.98
-Social cognition		-.03	2.16
-Synchrony		-.06	2.09
-Self-presentation		-.11*	1.77
-Influence		.16**	1.78
-Concern		.02	1.95
<b>R Square</b>	<b>.01</b>	<b>.20</b>	
<b>Adjusted R Square</b>	<b>-.01</b>	<b>.16</b>	
<b>R Square Change</b>	<b>.01</b>	<b>.19</b>	
<b>F Value</b>	<b>.37</b>	<b>4.82***</b>	

\*p<.05, \*\*p<.01, \*\*\*p<.001

#### **4.5.3.6 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Information Processing)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.24, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.02 indicating that 2 percent of information processing (strategic learning behaviour) was explained by the demographic variables. However, from the first regression model, it was observed that demographic variables had no significant influence on information processing (strategic learning behaviour).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 30 percent. The  $R^2$  change (.28) was significant. This implies that the additional 28.1 percent of the variation in information processing (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, no variable from the emotional intelligence dimension was found to have a positive or negative influence on information processing (strategic learning behaviour). However, the social intelligence dimension was found to have a positive influence on information processing (strategic learning behaviour), (social cognition  $\beta=.13$ ,  $p<.05$ ), (self-presentation  $\beta=.14$ ,  $p<.01$ ) and (influence,  $\beta=.17$ ,  $p<.001$ ).

Table 4.24

*Result of Hierarchical Regression Analysis: Dependent Variable: Information processing*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
gender	-.06	-.00	1.31
age	-.03	-.03	1.24
GPA	.03	.02	1.08
Financial support	.08	.05	1.20
Status in student family	-.02	-.01	1.17
Parents' marital status	.06	.04	1.19
Father's education	.09	.06	1.57
Mother's education	-.06	-.03	1.58
Father's occupation	.04	.07	1.65
Mother's occupation	-.03	-.06	1.47
Family monthly income	-.02	-.02	1.16
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.00	1.44
-Self-regulation		-.00	1.35
-Motivation		.02	1.37
-Empathy		-.01	2.51
-Social skill		.09	2.63
<b>Social Intelligence</b>			
-Primal empathy		.02	1.95
-Attunement		.07	1.49
-Empathy accuracy		.04	1.98
-Social cognition		.13*	2.16
-Synchrony		.03	2.09
-Self-presentation		.14**	1.77
-Influence		.17***	1.78
-Concern		.06	1.95
<b>R Square</b>	<b>.02</b>	<b>.30</b>	
<b>Adjusted R Square</b>	<b>.00</b>	<b>.27</b>	
<b>R Square Change</b>	<b>.02</b>	<b>.28</b>	
<b>F Value</b>	<b>.97</b>	<b>8.54***</b>	

\*p<.05, \*\*p<.01, \*\*\*p<.001

#### **4.5.3.7 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Selecting Main Idea)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.25, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.02 indicating that 2 percent of selecting main idea (strategic learning behaviour) was explained by the demographic variables. However, from the first regression model, it was observed that demographic variables had no significant influence on selecting main idea (strategic learning behaviour).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 23 percent. The  $R^2$  change (.21) was significant. This implies that the additional 21 percent of the variation in selecting main idea (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, only one from the emotional intelligence dimension was found to have a positive influence on selecting main idea (strategic learning behaviour), (motivation,  $\beta=.10$ ,  $p<.05$ ). Meanwhile, self-regulation dimension was found to have a negative influence on selecting main idea (strategic learning behaviour) (self-regulation,  $\beta=-.09$ ,  $p<.05$ ). However, the social intelligence dimension was found to have a positive influence on selecting main idea (strategic learning behaviour), (self-presentation,  $\beta=.21$ ,  $p<.001$ ) and (influence,  $\beta=.14$ ,  $p<.01$ ).

Table 4.25

*Result of Hierarchical Regression Analysis: Dependent Variable: selecting Main Idea*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
gender	-.08	-.06	1.31
age	-.01	.00	1.24
GPA	.02	.01	1.08
Financial support	.04	.02	1.20
Status in student family	.02	.03	1.17
Parents' marital status	-.01	-.02	1.19
Father's education	.07	.03	1.59
Mother's education	-.02	.03	1.58
Father's occupation	.03	.04	1.64
Mother's occupation	-.03	-.04	1.47
Family monthly income	.06	.04	1.17
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.00	1.44
-Self-regulation		-.09*	1.36
-Motivation		.10*	1.37
-Empathy		-.06	2.50
-Social skill		-.12	2.63
<b>Social Intelligence</b>			
-Primal empathy		.08	1.95
-Attunement		.09	1.48
-Empathy accuracy		.04	1.97
-Social cognition		.10	2.16
-Synchrony		.04	2.10
-Self-presentation		.21***	1.77
-Influence		.14**	1.78
-Concern		.06	1.94
<b>R Square</b>	<b>.02</b>	<b>.23</b>	
<b>Adjusted R Square</b>	<b>-.01</b>	<b>.19</b>	
<b>R Square Change</b>	<b>.02</b>	<b>.21</b>	
<b>F Value</b>	<b>.78</b>	<b>5.93***</b>	

\*p<.05, \*\*p<.01, \*\*\*p<.001

#### **4.5.3.8 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Study Aids)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.26, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.03 indicating that 3 percent of study aids (strategic learning behaviour) were explained by the demographic variables. However, from the first regression model, it was observed that demographic variables (status in student family and mother's education) had significant influence at .05 on study aids (strategic learning behaviour) but it was negatively related to le strategic learning behaviour (study aids).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 33 percent. The  $R^2$  change (.30) was significant. This implies that the additional 30 percent of the variation in use of study aids (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, only one from the emotional intelligence dimension was found to have a positive influence on study aids (strategic learning behaviour), (motivation,  $\beta=.13$ ,  $p<.01$ ). Meanwhile, the emotional intelligence dimension was found to have a negative influence on study aids (strategic learning behaviour) (empathy,  $\beta= -.12$ ,  $p<.05$ ). However, the social intelligence dimension was found to have a positive influence on study aids (strategic learning behaviour), (attunement,  $\beta=.10$ ,  $p<.05$ ), (social cognition,  $\beta=.14$ ,  $p<.05$ ), (self-presentation,  $\beta=.21$ ,  $p<.001$ ) and (concern,  $\beta=.11$ ,  $p<.05$ ).

Table 4.26

*Result of Hierarchical Regression Analysis: Dependent Variable: Study Aids*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
Gender	-.06	.00	1.31
Age	-.01	.00	1.24
GPA	.03	.01	1.08
Financial support	.07	.06	1.20
Status in student family	-.12*	-.11**	1.17
Parents' marital status	.05	.02	1.19
Father's education	.03	-.02	1.59
Mother's education	-.11*	-.07	1.58
Father's occupation	-.07	-.05	1.64
Mother's occupation	-.01	-.04	1.47
Family monthly income	.04	.03	1.17
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.05	1.44
-Self-regulation		-.07	1.36
-Motivation		.13**	1.37
-Empathy		-.12*	2.50
-Social skill		.05	2.63
<b>Social Intelligence</b>			
-Primal empathy		.04	1.95
-Attunement		.10*	1.48
-Empathy accuracy		.02	1.97
-Social cognition		.14*	2.16
-Synchrony		.09	2.10
-Self-presentation		.21***	1.77
-Influence		.02	1.78
-Concern		.11*	1.94
<b>R Square</b>	<b>.03</b>	<b>.33</b>	
<b>Adjusted R Square</b>	<b>.01</b>	<b>.30</b>	
<b>R Square Change</b>	<b>.03</b>	<b>.30</b>	
<b>F Value</b>	<b>1.42</b>	<b>9.84***</b>	

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001



#### **4.5.3.9 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Self-Testing)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.27, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.04 indicating that 4 percent of self-testing (strategic learning behaviour) was explained by the demographic variables. However, from the first regression model, it was observed that demographic variables (parents' marital status) had significant influence at .05 on self-testing (strategic learning behaviour) and it was positively related to learning behaviour (self-testing).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 28 percent. The  $R^2$  change (.24) was significant. This implies that the additional 24 percent of the variation in self testing (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, there were two variables from the emotional intelligence dimension which was found to have a positive influence on self-testing (strategic learning behaviour), (motivation,  $\beta=.10$ ,  $p<.05$ ) and (empathy,  $\beta=.17$ ,  $p<.01$ ). However, the social intelligence dimension was also found to have a positive influence on self-testing (strategic learning behaviour), (social cognition,  $\beta=.11$ ,  $p<.05$ ), (self-presentation,  $\beta=.19$ ,  $p<.001$ ) and (concern,  $\beta=.11$ ,  $p<.05$ ).

Table 4.27

*Result of Hierarchical Regression Analysis: Dependent Variable: Self-Testing.*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
Gender	-.09	-.04	1.31
Age	-.03	-.03	1.24
GPA	.05	.04	1.08
Financial support	.06	.06	1.20
Status in student family	.01	.00	1.17
Parents' marital status	.10*	.07	1.19
Father's education	.10	.05	1.59
Mother's education	-.01	.02	1.58
Father's occupation	.00	.00	1.64
Mother's occupation	-.05	-.08	1.47
Family monthly income	.01	.01	1.17
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.07	1.44
-Self-regulation		-.01	1.36
-Motivation		.10*	1.37
-Empathy		.17**	2.50
-Social skill		.00	2.63
<b>Social Intelligence</b>			
-Primal empathy		-.07	1.95
-Attunement		-.02	1.48
-Empathy accuracy		-.09	1.97
-Social cognition		.11*	2.16
-Synchrony		.03	2.10
-Self-presentation		.19***	1.77
-Influence		.05	1.78
-Concern		.11*	1.94
<b>R Square</b>	<b>.04</b>	<b>.28</b>	
<b>Adjusted R Square</b>	<b>.02</b>	<b>.25</b>	
<b>R Square Change</b>	<b>.04</b>	<b>.24</b>	
<b>F Value</b>	<b>1.98*</b>	<b>7.74***</b>	

\*p<.05, \*\*p<.01, \*\*\*p<.00

#### **4.5.3.10 Relationship between Demographic Factors, Emotional Intelligence, Social Intelligence and Strategic Learning Behaviour (Test Strategies)**

To test the hypotheses thoroughly hierarchical multiple regressions was applied. As depicted in Table 4.28, when the eleven demographic variables enter the regression equation in the first step, the coefficient of determination ( $R^2$ ) was found to be 0.04 indicating that 4 percent of test strategies (strategic learning behaviour) were explained by the demographic variables. However, from the first regression model, it was observed that demographic variables had no significant influence on test strategies (strategic learning behaviour).

In step 2, by adding emotional intelligence and social intelligence variables,  $R^2$  increased to 14 percent. The  $R^2$  change (.10) was significant. This implies that the additional 10 percent of the variation in test strategies (strategic learning behaviour) was explained by the structural variables in the emotional intelligence and social intelligence. As for the model variables, only one from the emotional intelligence dimension was found to have a negative influence on test strategies (strategic learning behaviour), (empathy,  $\beta=.22$ ,  $p<.001$ ) while the social intelligence dimension was found to have a positive influence on test strategies (strategic learning behaviour), (attunement,  $\beta=.18$ ,  $p<.001$ ) and (empathy accuracy,  $\beta=.13$ ,  $p<.05$ ).

Table 4.28

*Result of Hierarchical Regression Analysis: Dependent Variable: Test Strategies*

Independent Variables	Beta Step1	Beta Step2	VIF
<b>Control Variables</b>			
Gender	.07	.05	1.31
Age	.06	.05	1.24
GPA	.04	.06	1.08
Financial support	.01	-.01	1.20
Status in student family	.09	.08	1.17
Parents' marital status	-.02	-.00	1.19
Father's education	.09	.08	1.59
Mother's education	.00	.02	1.58
Father's occupation	.08	.10	1.64
Mother's occupation	-.08	-.07	1.47
Family monthly income	.07	.05	1.17
<b>Model Variables</b>			
<b>Emotional Intelligence</b>			
-Self-awareness		.03	1.44
-Self-regulation		.04	1.36
-Motivation		-.01	1.37
-Empathy		-.22***	2.50
-Social skill		-.12	2.63
<b>Social Intelligence</b>			
-Primal empathy		-.03	1.95
-Attunement		.18***	1.48
-Empathy accuracy		.13*	1.97
-Social cognition		.00	2.16
-Synchrony		-.02	2.10
-Self-presentation		.09	1.77
-Influence		.10	1.78
-Concern		-.07	1.94
<b>R Square</b>	<b>.04</b>	<b>.14</b>	
<b>Adjusted R Square</b>	<b>.02</b>	<b>.09</b>	
<b>R Square Change</b>	<b>.04</b>	<b>.10</b>	
<b>F Value</b>	<b>1.81*</b>	<b>3.15***</b>	

\*p&lt;.05, \*\*\*p&lt;.001

#### 4.6 Summary

This chapter reports the findings of this study which determines the relationship between emotional and social intelligence on strategic learning behaviour. In order to answer the research questions raised in this study, statistical packages for social sciences (SPSS) was used for data analyses. In this chapter, the relationships between the variables were assessed via descriptive analyses, Pearson correlation, t-test and multiple regression analyses. The results of this study are presented in 2 parts: the first part examined the students' level of emotional and social intelligence; and strategic learning behaviour. The results show that emotional intelligence and social intelligence of students is high level while strategic learning behaviour was at medium level.

The second part determined the relationship between emotional intelligence, social intelligence and strategic learning behaviour. To determine the significant difference of students' demographic factor on emotional intelligence, t-test and ANOVA showed that there were no significant difference between demographic factors and emotional intelligence. Secondly, the analyses of the t-test and ANOVA shows that there is no significant different between demographic factors and social intelligence.

Furthermore, Pearson's Product Moment Correlation Coefficient was use to proof the relationship between emotional intelligence and social intelligence, the result showed significant at.001. The relationship between emotional intelligence and strategic learning behaviour were significant at.001; and the relationship between social intelligence and strategic learning behaviour were also significant at.001. A

Hierarchical Multiple regression was use to proof relationship between demographic factors, emotional intelligence, social intelligence and strategic learning behaviour. The result showed there were not significant different between demographic factors, emotional intelligence, social intelligence and motivation. Therefore, the next chapter will deal with the discussion, conclusion and recommendations.



## **CHAPTER FIVE**

### **SUMMARY, DISCUSSION, AND CONCLUSION**

#### **5.1 Introduction**

The objectives of this study were to gauge the level of students' emotional intelligence, social intelligence and learning strategies among students; whether emotional intelligence and social intelligence play a significant role in their strategic learning behaviour and; examine if demographic factors affect the relationship between emotional intelligence and social intelligence play a significant role in their strategic learning behaviour

This chapter discussed the findings based on the research questions of the study. The research questions that guided this study were:

1. What is the level of emotional intelligence, social intelligence and strategic learning behaviour among SKRU students?
2. Are there any relationships between emotional intelligence, social intelligence and strategic learning behaviour?
  - iii. Are there any relationships between emotional intelligence and strategic learning behaviour?
  - iv. Are there any relationships between social intelligence and strategic learning behaviour?

3. Does demographic factors affect the relationship between emotional intelligence, social intelligence and strategic learning behaviour?

- i. What is the influence of demographic factors on emotional intelligence?
- ii. What is the influence of demographic factors on social intelligence?
- iii. What is the influence of demographic factors on social intelligence, emotional intelligence and strategic learning behaviour?

## **5.2 Summary**

### **5.2.1 Research Question 1**

This study reported that emotional intelligence and social intelligence were generally high while strategic learning behaviour was at medium level. However, only self-regulation (sub-dimension of the emotional intelligence), empathic accuracy, influence, (sub-dimensions of the social intelligence), were at medium level while attitude, selecting main idea, study aids and self-testing, (sub-dimensions of strategic learning behaviour) were at higher level.

### **5.2.2 Research Question 2**

The findings showed that most factors related to emotional intelligence were significant and positively related with strategic learning behaviour. However,



1. Self-regulation (a sub-dimension of emotional intelligence) was not significantly related with anxiety and test strategies (a sub-dimension of strategic learning behaviour).
2. Motivation (a sub-dimension of emotional intelligence) was not significantly related with concentration and test strategies (a sub- dimension of strategic learning behaviour).
3. Self-awareness (a sub-dimension of emotional intelligence) was not significantly related with test strategies (a sub-dimension of strategic learning behaviour).

However, self-awareness, motivation, empathy and social skill (sub-dimensions of emotional intelligence) were significant and negatively related with anxiety (a sub-dimension of strategic learning behaviour). Empathy and social skill (sub-dimensions of emotional intelligence) were significant and negatively related with test strategies (a sub-dimension of strategic learning behaviour).

The study also revealed that most sub-dimensions of social intelligence were significant and positively related with strategic learning behaviour while:

1. Empathic accuracy (a sub-dimension of social intelligence) was not significantly related with attitude (a sub-dimension of strategic learning behaviour).
2. Primal empathy, attunement and empathic accuracy (sub-dimensions of social intelligence) were not significantly related with anxiety (a sub-dimension of strategic learning behaviour).

3. Empathic accuracy, social cognition, synchrony, self-presentation, influence, primal empathy and concern (sub-dimensions of social intelligence) were not significantly related with test strategies (a sub-dimension of strategic learning behaviour).

On the other hand, social cognition, synchrony, self-presentation, influence and concern (sub-dimensions of social intelligence) were significant and negatively related with anxiety (a sub-dimension of strategic learning behaviour).

### **5.2.3 Research Question 3**

The findings for the relationships between demographic factors and emotional intelligence revealed that not all, but a few, of the demographic factors had significant differences. This included father's education that was significant and positively related to motivation, gender was significant and negatively related with empathy but significant and positively related with age, and gender was also significantly and positively related with social skill.

The results of the tests on the relationship between demographic factors and social intelligence revealed that not all, but a few, of the demographic factors were significantly different. These included age that was significant and positively related with primal empathy, empathic accuracy and social cognition. Parents' marital status was significant and positively related with synchrony. Financial support was significant and positively related with influence. However, gender was significant

and negatively related with social cognition and concern, while mother's education was significant and negatively related with self-presentation.

The hierarchical analysis revealed that most demographic factors were not significantly related with strategic learning behaviour, except for gender and parents' marital status which were positively significant. Student's status in family and mother's education were negatively significant.

1. The social skill, self-regulation and motivation (sub-dimensions of emotional intelligence) were positively and significantly related with strategic learning behaviour. However, empathy and self-regulation were negatively and significantly related with strategic learning behaviour.
2. Self-presentation, concern, empathy accuracy, social cognition, influence and attunement (sub-dimensions of social intelligence) were positively and significantly with strategic learning behaviour. However, empathic accuracy and self-presentation were negatively and significantly related with strategic learning behaviour.

## 5.3 Discussion

### 5.3.1 Research Question 1: What is the level of emotional intelligence, social intelligence and strategic learning behaviour among SKRU students?

#### 5.3.1.1 Emotional Intelligence

This study showed that the overall finding on emotional intelligence was high, with motivation being the highest. This finding was similar to Saat et al.'s study (2014) in which it was found that the emotional intelligence level of first-year Biomedical Science Programme students in Kuala Lumpur was higher compared to that of second and third year students. Similar findings were also found in Panjiang's study (2013) where university students' emotional quotients were also high. Due to their high emotional intelligence these students may develop the ability to perceive their peers' emotions and this may in turn leads to changes in their thinking which helps in intellectual and emotional growth (Mayer *et al.*, 2004).

One reason that students' emotional intelligence was high in this current study could be because they have good intrapersonal abilities that enable them to think about and perceive their own strengths and weaknesses and to efficiently organize their future plans in order to achieve their dreams. Furthermore, they have confidence in their abilities. People with average or high emotional intelligence level were also found to have high empathy and thus, were able to well perceive others' feelings and understand the situations as though they were on the same emotional level. Facial expressions or voice tones were sufficient for them to sense that something was wrong with the person with whom they were interacting (Mayer *et al.*, 2004;

SixSeconds, n.d.). In this case, they could help their peers in solving problems or lead their groups. As they can control themselves, they could also control situations and perhaps even other people's minds (George, 2008). Such students who are in control are the ones that their friends can count on when they have problems, without the fear of being affected negatively.

The findings also revealed that more than one third of the respondents in this study reported that they often felt that they had "so much to do". More than one third "frequently" or "occasionally" felt lonely or homesick or worried about meeting new people and that they needed to keep away from their family to complete their work. According to these students, helping people with problems can help entwine "spirituality into their life" and this is "very important" as it could help achieve their "essential personal goals." This was in line with Tinto's studies (1975, 1993), which reported that first-year college/university students faced numerous new challenges and adjustments. The ability to build new relationships while modifying existing relationships with family and friends is vital during this transition. New students also need to build study habits for an academic environment that are different from those of high school, as well as to learn to live as relatively independent adults. Independence also means learning to manage time and money. Several key findings from the 2003 Your First College Year Survey (Keup & Stolzenberg, 2004) emphasized the importance of these factors. Thus, the respondents in this study were faced with multi challenges that ranged from emotional turmoil of first time being away from home and family, adapting to the new life on campus, to learning to get use to the new academic life style has made them aware of the need to change, adapt

and learn to cope with all the challenges they are currently facing. This process may have contributed to the development of their high emotional intelligence.

Goleman further explained (1998) that the level of emotional intelligence is not fixed genetically, nor does it develop only in early childhood. Unlike intelligence quotient, which changes little after teen years, emotional intelligence seems to be learned and continues to develop as someone goes through life and learn from his/her experiences. Thus, emotional competence can increase over time.

In fact, studies have tracked people's level of emotional intelligence through the years and have shown that people get better and better in these emotional capabilities as they grow more adept at handling their own emotions and impulses, at motivating themselves, and at honing their empathy and social adroitness. Similarly, Fariselli *et al.* (2008) found that some parts of emotional intelligence slightly increase with age though some elements of emotional intelligence do not. This suggests that some emotional competencies have to be developed via training. Finally, Jan *et al.* (2013) revealed that the type of family structure may have an influence on adolescents' emotional intelligence wherein adolescents raised in joint families were more flexible and adaptable compared to adolescents of smaller families. Children brought up with siblings will learn more in terms of cooperating, caring, and sharing with siblings and these are the elements most needed to develop strong emotional intelligence in later life. As such, the high level of emotional intelligence in this study could be as a result of the students' age, the training received and their family structure.

Another contributing factor to the high emotional intelligence was that first-year students at the university were generally happy, as they perceived themselves as adults, moving away from school and home into higher institution to become university students. In addition, the welcome they received from senior students, making friends in a new environment, freedom in expressing their thoughts and opinion, less control in terms of rules and regulations compared to the rigid and authoritarian school life may have contributed to the increase in their emotional intelligence.

The finding also reported that motivation (sub-dimension of EI) had the highest level among the sub-dimensions of EI.

#### **5.3.1.2 Social Intelligence**

The finding shows the overall result where social intelligence was mostly high. However, empathic accuracy (the sub-dimension of the social awareness) and influence (the sub-dimension of social facility) were at medium level.

Much of these results have to do with two factors. First, the age group was homogeneous and cultural backgrounds were similar. Students in this study demonstrated mostly high social intelligence because they were dealing with fellow students whose cultural backgrounds were similar. Most of the students come from the 3 districts in southern Thailand. Thus, it was likely that they could socialize easily and create friendships immediately as they may have fewer issues on cultural differences.

Second, both empathic accuracy and influence were at a medium level because these were elements of social intelligence that could be learned through experience, a type of learning that develops with increased practice derived from simply growing older (Barbera, Charoenchote, Im, & Barchard, 2003; Marzuki, Mustaffa, Saad, Muda, Abdullah, & Che Din, 2006; Bar-On, 2006). Therefore, as most of these respondents were aged between 18-20 years old which could be considered as still young to experience much in life, this could have contributed to the medium level for their empathic accuracy and influence.

Leading a successful life in a campus society without social intelligence could be difficult. Social intelligence may help a student to develop a healthy co-existence with peers. Socially intelligent individual behave tactfully and prosper in life. Social intelligence is useful in solving the problems of social life and helps in tackling various social tasks. Thus, social intelligence is an important developmental aspect of education (Saxena & Jain, 2013) especially for students at the tertiary level.

Another possible reason for empathic accuracy and influence to be at medium level could be due to the respondents being in their teens. Teenagers strongly want to belong to a group (Rochat, 2003; Goffman, 1959). The respondents in this study were first-year university students who were mostly in their teens or early twenties so it was possible that their age might influence their empathic accuracy. As the respondents were first-year students, their empathic accuracy and influence may only be medium as they were new on campus and only beginning to know and adjust to new friends. Therefore, this newness could explain the medium level of empathic



accuracy and influence among them. Hopefully, as they proceed through the semesters, these two aspects in their life would improve. If they had high level of empathic accuracy, they were more likely to understand and be understood by group members (Development of adolescents, 2011; Wray-Lake & Syvertsen, 2011). Adapting to common behaviour would eventually result in acceptance from group members.

A teenager wants to be a member of a group, sharing happiness and sufferings and doing activities together (Brown, Mounts, Lamborn, & Steinberg, 1993; Terry & Hogg, 2000). Teenagers also tend to model the behaviour of the group members with whom they associate. If the group they were in comprised members with positive behaviours, they would also build good behaviours. If the group they were in comprised members with negative behaviour, they would go astray. Teenagers would try every possible way to act as their group members want them to so that they may gain acceptance from them. Thus, there could be the possibility that the respondents in this study have friends or peers who are less inclined towards positive behaviour and this may have contributed to their medium level in empathic accuracy and influence aspects as obtained in this study.

Thorndike (1920) clearly stated that social intelligence is “the ability to get along well with others and to get them to cooperate with you” (Thorndike & Stein, 1937; p.275). In addition, they should also be well-adapted to the environment and new situations (Thakur *et al.*, 2013). This is because social intelligence is related to various outcomes such as social adjustment, psychopathology, academic

achievement, and work-related success, its existence is crucial for healthy development (Gresham, 2002; Katz *et al.*, 1995; LeCroy, 2002; Masten & Coatsworth, 1998; Obradovic *et al.*, 2006; Warnes *et al.*, 2005). Burdened by a lack of social intelligence, success in life would be almost impossible (Nagra, 2014), but having high level of social intelligence could lead to a happier life (Aminpoor, 2013). Those with high level of social intelligence were likely to be popular and this in turn may lead to happiness though it was not related to academic achievement (Meijs *et al.*, 2010). Studies have shown that first-year students who have high level of social intelligence were more likely to attain their education goals (Tanakinci & Yildirim, 2010; Al Makahleh & Ziadat, 2012; Beheshtifar & Roasaei, 2012). Therefore, the medium level in social intelligence obtained in this study could be as a result of students' level of social adjustment or psychopathology.

Fortunately, these first-year students have potential to achieve their life aims if they are willing to grow (Goleman, 1995; Jones & Day, 1997; Mayer & Salovey, 1990).

Thorndike (1920) also suggested that social intelligence increases with age and experience of a person. Most respondents in this current study were 17 years old or more, meaning that most were in their late adolescence age so they may have some, but not many, life experiences. Though the transition from school to university is a significant change in life, however, having friends could help when they have problems because they can depend for support from their friends. Hence, life can be happy, with fewer worries and they would not go astray if they have good and reliable friends. If these respondents are happy because of good relationships with

peers this may contribute to their being more focus on learning so that they could complete their study together.

### **5.3.1.3 Strategic Learning Behaviour**

The finding shows that strategic learning behaviour of most students in this study was at the medium level with (1)attitude (sub-dimension in covert behaviour dimension) and (2)study aids, (3)self-testing and (4)selecting main idea (sub-dimensions in overt behaviour dimension) being high. The findings were in line with Romruen's study (2006), which found that students' learning behaviour was at a moderate level, possibly from the pressure of becoming a freshman. This could be due to the stress they had to face in the new living environment; a different educational system, new teachers and friends and being away from families. In addition, study at the university is much more difficult and requires more attention and learning skills.

Generally, the high level of the students' (2) attitude towards their learning may be because they were not worried about their academic performance. Most of the students who entered the university were already prepared to meet and make new friends, thus, paving the way to know more about one another. Besides, the tendency to help one another in learning helped boost positive attitudes towards creating new relationship. This finding is in congruence with Saengsi's (1995) study, which suggested that experience and environment could sometimes shape attitudes and this, in turn, may further affect academic performance (Loong, 2012). Therefore, we

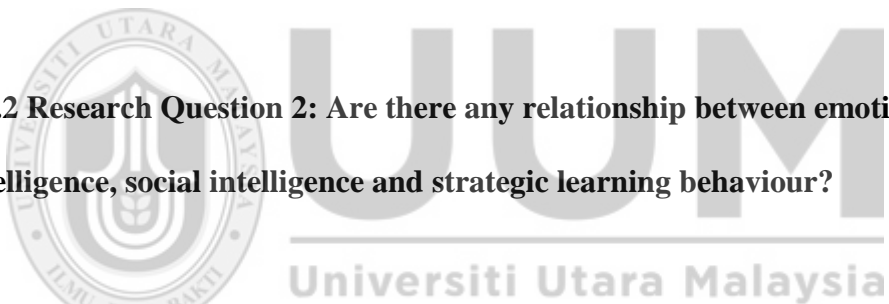
could assume that students' attitudes would also increase along with the additional experiences they encounter during future semesters.

The finding, which reported that students had a high level of (4) selecting main idea probably, indicates that the students were prepared for class by reading and selecting important facts. These abilities may facilitate their learning in class. While in class, they may also take notes, which may have facilitated their ability to learn (Sisurak, 1986; Sirisamphan & Mahakhan, 2011).

As for the high level of strategic learning behaviour in terms of (2) study aids, this may be because most students at this level may use appropriate study techniques, especially for reading before class and revision by selecting important points that facilitate their memorization and understanding (Sirisamphan & Mahakhan, 2011; Watthanawanit, 1994).

The high level of learning behaviour in terms of (3) self-testing probably resulted from the fact that revision and preparing for test are learning techniques, which can help students to pass the course. Sirisamphan and Mahakhan (2011) found that students usually stop their reading and recall what they had read possibly because of feeling afraid of forgetting it while at the same time taking notes to help retained their memory. Self-testing then could further be done by answering the exercise themselves. Thus, these could have contributed to the high level of using strategies in their study and may also be the predictors of the high strategic learning behaviour among these students.

Supporting this conclusion, Sirisamphan and Mahakhan (2011) found that Thai students used various types of study aids such as digesting important information, note taking, prioritizing content, and separating important content from less important content. All these techniques have helped these Thai students gain success in their study. This is because developing students learning includes students, teachers, and the overall environment besides other factors such as developing effective learning techniques. Thus, using learning aids and developing proper learning behaviour facilitates basic knowledge and this, in turn, develops understanding and critical thinking (Sirisamphan & Mahakhan, 2011; Watthanawanit, 1994).



### **5.3.2 Research Question 2: Are there any relationship between emotional intelligence, social intelligence and strategic learning behaviour?**

#### **5.3.2.1 Relationship between Emotional Intelligence and Strategic Learning Behaviour**

Most emotional intelligence sub-dimensions were positively and significantly related with the sub-dimensions of the strategic learning behaviour. Studies have shown that higher levels of awareness and understanding of a person's own emotions could have a positive impact on his/her academic achievement. Some have reasoned that higher emotional intelligence may even lead students to pursue their interests more strongly and also to think more broadly about academic subjects of interest (Ferenandez *et al.*, 2012).

Social skill (sub-dimension of emotional intelligence) had the highest relationship with information processing (sub-dimension of strategic learning behaviour). Thus, this could be due to students who had the ability to manage their academic process better were also those who were able to tap upon their prior knowledge of a topic, to make connections between previous and new information, and to organize new information meaningfully. These findings were consistent with a body of theory that mastery of social-cognitive skills might potentiate a child's ability to navigate social situations and process information in a better manner (Fraser *et al.*, 2005).

### **5.3.2.2 Relationship between Social Intelligence and Strategic Learning**

#### **Behaviour**

Most social intelligence sub-dimensions were positively significant with the sub-dimension of the strategic learning behaviour. High social intelligence would suggest that students respond positively to learning cues by means of their social intelligence and that these cues came from their fellow students and faculty members. This in turn would lead the students to respond to those cues in order to gain rewards (good grades, recognition) and this could only be achieved by developing adequate strategic learning behaviour (KIPP, n.d.).

Self-presentation (sub-dimension of social intelligence) is the ability of an individual to express his/her feelings and let others know how he/she feels. Self-presentation in this study had the strongest relationship with study aids among the variables examined. This is consistent with the theory and literature that found self-

presentation to be a more intense and thorough cognitive behaviour and, which in turn, could lead to more thorough cognitive processing (Sorrentino & Higgins, 1996). In addition, self-presentation has a relationship with the search for perfectionism, which is related with the need to do well in all facets of life (Besser *et al.*, 2010), including academic performance (Lucas, 2011).

### **5.3.3 Research Question 3: Does demographic factors affect the relationship between emotional intelligence, social intelligence and strategic learning behavior?**

#### **5.3.3.1 Demographic Factors and Emotional Intelligence**

The findings with respect to the relationships between demographic factors and emotional intelligence revealed that not all, but a few, of the demographic factors had significant differences. These include father's education that was significant and positively related to motivation. Gender was significantly and negatively related with empathy and social skill while there was no significant differences in the respondents' age and level of emotional intelligence.

##### **5.3.3.1.1 Demographic Factors and Self-awareness**

The findings showed no relationship between demographic factors (gender, age, GPA, financial support, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's and mother's education) and self-awareness. This finding was in line with Panjiang's (2013) study, which did not report any relationship between parents' occupation, income and emotional

intelligence. Based on these studies it could be concluded that there may be other factors that might have relationships with emotional intelligence, and these factors could be more important than demographic factors (Paul-Oudouard, 2006). Paul-Oudouard (2006) studied emotional intelligence, social problem solving, and demographics as predictors of well-being in women with multiple roles. The study found that cognitive-affective variables were able to predict outcome over and above demographic and occupational factors.

Zakarevicius and Zuperka (2010) also found the influence of self-awareness was more on on management for developing entrepreneurship among business administration students. The study concluded that the relationship between individual characteristics and emotional intelligence of an individual were highly important for the development of business management rather than for students learning at the university.

#### **5.3.3.1.2 Demographic Factors and Self-regulation**

This study found no relationship between demographic factors (gender, age, GPA, financial support, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's and mother's education) and self-regulation.

Self-regulated learners in this study are aware of their own academic strengths and weaknesses and have strategies to overcome daily academic tasks and challenges. These learners have incremental beliefs regarding intelligence and associate all



success and failures to circumstances over which they have full control (Dweck & Leggett, 1988; Dweck, 2002). Self-regulation deals with an individual's belief in his/her ability to influence and control day-to-day events. This belief is the root of all human motivation, performance accomplishment and emotional well-being. People will not commit to activities or persevere in the event of difficulties unless they have confidence in their ability to achieve objectives or overcome obstacles. All other factors such as guides and motivators are based on the belief that a person can make a difference by his/her actions. For these reasons, it is evident that demographic factors and self-regulation are not in any way related (Bandura, 1997).

Furthermore, a study examined the relationship between self-regulated learning, motivational orientation and academic performance as well as a self-report measure of student intrinsic value, test anxiety, self-regulation and use of learning strategies. Self-regulation and intrinsic value were found to be positively related to performance and cognitive engagement. Further, analysis revealed that self-regulation, self-efficacy and test anxiety were the best predictors of performance, depending on the outcome measure. Performance was not directly affected by intrinsic value but was closely related to cognitive strategy use and self-regulation, regardless of previous achievement levels (Pintrich & De Groot, 1990).

#### **5.3.3.1.3 Demographic Factors and Motivation**

The study found no relationship between demographic factors (gender, age, GPA, financial support, student's status in family, parent's marital status, father's and

mother's occupation, family monthly income, father's and mother's education) and motivation except for father's education.

This finding was in line with Balalami, Ghanji, Tosi, Ghohargani, Nabavizadeh, and Kia (2013) study, which showed that father's education level had an effect on emotional intelligence. This is because fathers are important family members in Thai families. Fathers with high motivation set an example for their children, motivating them to adapt to his principles (Laopphet, 2001)

#### **5.3.3.1.4 Demographic Factors and Empathy**

The finding in this study revealed no relationship between demographic factors (gender, age, GPA, financial support, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's and mother's education) and empathy except for a negative relationship with gender and a positive relationship with age.

This finding was in line with Fariselli *et al.* (2008) study on age and emotional intelligence. Their study found that a few sub-dimensions of the emotional intelligence increased with age, though the effect was slight. In addition, some elements of emotional intelligence did not increase with age indicating that some competencies must be developed through training. For example, empathy can be improved significantly over time, noticeably more with men than with woman.

#### **5.3.3.1.5 Demographic Factors and Social skills**

The findings showed no relationship between demographic factors (gender, age, GPA, financial support, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's education and mother's education) and social skill except for a negative relationship with gender.

The finding was in line with Margalit and Eysenck 's (1990) study on prediction of coherence in adolescence: gender differences in social skills, personality and family climate. Females were found to have a higher level of social competence compared to males.

#### **5.3.3.2 Demographic Factors and Social Intelligence**

The result on the relationship between demographic factors and social intelligence revealed that not all, but a few, of the demographic factors were significantly different. These included age that was significant and positively related with primal empathy, empathic accuracy and social cognition. Parents' marital status was significant and positively related with synchrony. Financial support was significant and positively related with influence. However, gender was significant and negatively related with social cognition and concern. Mother's education was significant and negatively related with self-presentation.

##### **5.3.3.2.1 Demographic Factors and Primal empathy**

The finding revealed no relationship between demographic factors (gender, age, GPA, financial support, student's status in family, parent's marital status, father's

and mother's occupation, family monthly income, father's and mother's education) and primal empathy except for age.

The finding was aligned with Wan Abdul Rahman and Castelli's (2013) study, in which they found the 18-29 age groups, had statistically significantly higher levels of empathy compared to other age groups. The tests found that the level of empathy (mean score) was significantly higher for Americans compared to Malaysians.

This could be due to the development of social intelligence, which starts immediately after birth and develops with age (Thorndike, 1920). Moreover, the finding on the relationship between social intelligence and age also in line with Goleman's (1998) findings, who suggested social intelligence skills increased as one gets older.

#### **5.3.3.2.2 Demographic Factors and Attunement**

The study found no relationship between demographic factors (gender, age, GPA, financial support, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's and mother's education) and attunement. This finding is in concordance with Sarvamangala's (2012) study on the relationship between socio-demographic factors and social intelligence of secondary school teachers in which no significant differences were found between social intelligence and socio-demographic factors (gender, age, caste and marital status).

This was probably because the culture in Thai society is of the collectivist type: members of such a society attach importance to either group or to other people not than themselves. This is because they want to be accepted by other members of the society. They are highly satisfied with the reliance they place on one another both physically and mentally and put an emphasis on living together in harmony. Countries with these characteristics include Korea, Pakistan, and Thailand. It is notable that most developing countries have a collectivist culture. Hence, differences in personal factors have no influence on attunement because everyone is already naturally conscious of it. This is likely to be true in the Thai society where this current study took place; a society in which “consideration” is perceived as a desirable characteristic by everyone for the sake of harmonious living.

#### **5.3.3.2.3 Demographic Factors and Emphatic accuracy**

The findings revealed no relationship between demographic factors (gender, GPA, financial support, student’s status in family, parent’s marital status, father’s and mother’s occupation, family monthly income, father’s and mother’s education) and emphatic accuracy except for age.

This finding is aligned with those of Haugen’s (2006) study on empathic accuracy and adolescent romantic relationships. In this work, Hagen found complex, gender-linked differences in empathic accuracy. Specifically, when females reported higher relationship satisfaction, they were more likely to accurately perceive their partners’ negative feelings and behaviours (conflict, persuading, and discomfort), and this may

lead them to perceive their partners' feelings of connection. However, for males, higher relationship satisfaction was negatively associated with the accurate perception of feelings of connection.

The respondents in this current study were first-year university students who were mostly in their teens so it was possible that their age might influence their empathic accuracy because when they have a high level of empathic accuracy, they are more likely to understand and be understood by group members (Al-Hasi, 2010; Richter & Kunzmann, n.d.; Markus, & Kitayama, 1991). This will eventually result in acceptance from group members.

#### **5.3.3.2.4 Demographic Factors and Social cognition**

The findings revealed no relationship between demographic factors (GPA, financial support, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's and mother's education) and social cognition except for a negative relationship with gender and a positive relationship with age.

The results of the study showed that a negative significant relationship between gender and social cognition. In other words, different genders of students have different social cognition. Bussey and Bandura's (1999) study supported this finding. They found human differentiation on the basis of gender is a fundamental phenomenon that affects virtually every other aspect of people's daily lives. From this theoretical perspective, gender conceptions and roles are the product of a broad

network of social influences operating interdependently in a variety of societal subsystems.

On the other hand, Keightley, Winocur, Burianova, Hongwanishkul, and Grady (2006) found that older adults also showed more intercorrelations among the social tasks than younger adults. These findings suggest that age differences in social cognition are limited to the processing of facial emotion. With age, there appears to be increasing reliance on a common resource to perform social tasks, but one that is not shared with other cognitive domains. Moreover, Briones and Taberero's (2012) correlation analyses found that age, social self-efficacy, academic self-concept, attribution style and intrinsic satisfaction were related. ANOVA test revealed that girls displayed a greater tendency to attribute their outcomes to internal factors than the boys. This could be the reason why a negative relationship between gender and social cognition was found in this current study.

On the other hand, older Spanish adolescents displayed lower levels of intrinsic satisfaction than younger and immigrant adolescents. Path analyses found that social self-efficacy and academic self-concept were the best predictors of intrinsic satisfaction. Therefore, the promotion of social self-efficacy and academic self-concept should increase intrinsic satisfaction in schools. In addition, research into the role of cultural origin in self-regulation in schools may be necessary.

### 5.3.3.2.5 Demographic Factors and Synchrony

The findings in this study showed no relationship between demographic factors (gender, age, GPA, financial support, student's status in family, father's and mother's occupation, family monthly income, father's and mother's education) and synchrony except for parents' marital status. The findings showed that only parents' marital status was significantly related to synchrony. In the United States, between 40 and 50% of first time marriages ended in divorce (American Psychological Association, 2014). In Thailand that figure has been rapidly rising over the past few years, not standing at around 35% of first time marriages in a country that prides itself on intact marriages (ThaiPBS, 2014). Divorce is becoming a big issue in Thailand.

A divorce has both short-term and long-term impacts on children. However, as time passes, 80% of the children from broken homes were successful in life and can adapt to the environment around them. Except for some residual depression, the memory of having divorced parents becomes more distant and affects their life less and less over time (Elizabeth Bahe, n d).

Because the subjects in this study were still relatively young (around eighteen years old), their parents' marital status might still have some impact on them. Among the impacts that were found were increased interpersonal conflicts, life stress, lower academic achievement, and social adjustment difficulties (Matthews, 2014). Indeed, study has found that children of divorced families experienced lower levels of wellbeing (Canada, Department of Justice, 2013).



### 5.3.3.2.6 Demographic Factors and Self-presentation

The findings in this current study reported no relationships between demographic factors (related that gender, age, GPA, financial support, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's education) and self-presentation except for a negative relationship with mother's education.

Of the eleven demographic factors, only mother's education was significantly, but negatively, related to self-presentation, which was the ability to present oneself favorably, such as leaving a good impression. Although considered to be one of the soft skills, self-presentation is a basic element of nourishing and sustaining interpersonal relationships (Goleman, 2006).

The literature suggested that level of education influences parents' knowledge, beliefs, values, and goals about bringing up a child so their behaviour was related indirectly to their children's school performance (Board, n.d). Increasingly, research also has suggested that parents' level of education is part of a larger constellation of psychological and sociological variables influencing children's behaviour rather than having a direct association with children's academic achievement (Chandra, 1985).

Although higher levels of education of both parents may create more access to resources such as income and community contacts, one profound issue is the amount of time that working parents can spend with their children. In Thailand, mothers are now more often working outside the home and hence have less time to spend with their children (National Statistical Office, n.d.; International Labour Organization,

2013). Eventually, children are left more on their own, which may lead to undesirable behaviour if they happen to be in an undesirable environment. The change in the mother's role might affect their children's self-presentation because mothers do not have enough time to look after their children (DeJong, 2010).

#### **5.3.3.2.7 Demographic Factors and Influence**

The findings reported no relationship between demographic factors (gender, age, GPA, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's and mother's education) and influence except for financial support.

Financial support for students was shown to directly affect psychological factors such as satisfaction, goal commitment, and stress and these create conditions in which students feel at ease, feel better about themselves, and are more likely to fit in and do better in school (Advisory Committee on Student Financial Assistance, 2012).

#### **5.3.3.2.8 Demographic Factors and Concern**

The finding in this study reports no relationship between demographic factors (age, GPA, financial support, student's status in family, parent's marital status, father's and mother's occupation, family monthly income, father's and mother's education) and concern except for a negative relationship with gender.

The findings reflect that students of different gender have different concerns and this finding was aligned with those of Hastings, Zahn-Waxler, Robinson, Usher and Bridges (2000) and Pakaslahti, Karjalainen and Keltikangas-Jaervinen (2002) who found that girls showed more concern compared to boys through their adolescence years. Males and females often look at things around them differently. Males usually look for an overview and external factors on the happenings and use rules, reasons and facts to explain them whereas females attach more importance to feelings (Chaplin & Aldao, 2013; Petrides, Furnham, & Martin, 2004).

### **5.3.3.3 The influence of Demographic Factor, Emotional Intelligence and Social Intelligence on Strategic Learning Behaviour (SLB)**

#### **5.3.3.3.1 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Attitude (SLB)**

The findings showed that demographic factors were found to be unrelated to students' attitude (strategic learning behaviour). However, findings from other studies on these factors have shown mixed results. Sometimes demographic factors such as education, gender, and family groups may have an impact; sometimes they may not. These inconsistencies in the findings reflect several reasons, including culture and national setting (Remali *et al.*, 2013). In this current study, the overall homogeneity of the sample in the data set may be less sensitive to the demographic factors and also more influenced by the reference group specific in the data set. In this case, the reference group was the first-year students who were young in their academic careers and life so that differences may not have emerged. Additionally,

the university selection process, from the selection to in-coming students usually produces homogeneity in their outlooks.

Social skill (emotional intelligence) was found to influence students' attitude (strategic learning behaviour). This may be due to various social skills and behaviours that they may have learned both implicitly and explicitly so this may have well-developed their social skills within their milieu. This in turn would help them to work co-operatively in a group, improve their self-confidence in approaching a group of peers and interacting with their peers. Social skills and behaviours were required to enhance the social competence of children in the areas of social and interpersonal behaviour. "Collaborative" learning in peer-group settings has been found to enhance performance (Ferrer, 2004; Ribera et al., 2012).

The empathy accuracy (social intelligence) had a negative influence on students' attitude (strategic learning behaviour). This may be due to the child-rearing practices of their parents that have influenced the emotional environment of the family (Lopez *et al.*, 2001). Excessive authoritarian attitudes of parents have been found to be associated with low empathy level in children while inductive attitudes were associated with high empathy level. Thus, authoritarian parents may limit their child further (Marr & Ezeife, 2008). Authoritarianism was one factor that separated cultural outlooks, and this may be the contributing factor in this case (Hofstede *et al.*, 2010).

Self-presentation and concern (social intelligence) influenced students' attitudes (strategic learning behaviour). Perhaps this may be explained by the Self-presentation Theory, which assumes that people, especially those who self-monitor their behaviour hoping to create a good impression, would tend to adapt their attitudes to appear consistent with their actions. The available evidence confirms that people adjust their attitudes statements out of concern for what other people would think. Research also shows that some genuine attitude change may occur (Bar-on, 1997).

#### **5.3.3.3.2 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Motivation (SLB)**

Demographic factors had no influence on students' motivation. Motivation is the ability of students to drive forward and strive to achieve a goal. Broadly speaking, emotional support from parents and peers should assist a student in doing better and achieving goals and overcoming barriers encountered. Emotional intelligence is related to motivation (strategic learning behaviour) in some cultural contexts (Roy, Sinha, & Suman, 2013). In this study, demographic factors were probably unrelated to students' motivation because of the impact of their culture upon them. Culture still remains a primary determinant of many factors, but how culture influences motivation depends upon whether the culture is task-orientated or person-orientated (Helou & Vitala, 2007).

Emotional intelligence factors did not influence students' motivation (strategic learning behaviour), except for disruptive behaviour that may impede progress. Emotional intelligence seems unrelated to motivation in the learning behaviour,

particularly in the classroom (Jordan & Metais, 2000), except in the instance of the inability to control conditions; behavioural practices seemed more related.

Social intelligence factors did not influence students' motivation (strategic learning behaviour). This may be because goal-directed behaviour, effort and energy, initiation and persistence, cognitive processing, and the impact of consequence motivation may lead to improved performance. Thus, students who were most motivated to learn and excel in classroom tasks tend to be the highest achievers (Gottfried, 1990; Schiefele *et al.*, 1992; Walberg & Uguroglu, 1980). Conversely, students who had little interest in academic achievement were at high risk of dropping out before they graduate from high school (Hardre & Reeve, 2003; Hymel *et al.*, 1996; Vallerand *et al.*, 1997).

#### **5.3.3.3.3 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Anxiety (SLB)**

Gender (demographic factor) was related to students' anxiety (strategic learning behaviour) in this study. According to the result of this study, female anxiety is higher than their male counterparts. The findings of this current study was inline with previous researches that had explored gender differences with respect to test anxiety and found that female students had higher levels of overall test anxiety than male students (Chapell, Blanding, & Silverstein, 2005; Cassady & Johnson, 2002; Bandalos, Yates, & Thorndike-Christ, 1995). Cassady and Johnson (2002) reported "that one explanation for differences in test anxiety on the basis of students' gender is that male and female students feel same levels of test worry, but females have

higher levels of emotionality” (p. 274). Zeidner (1990) concluded that differences in test anxiety scores of male and female student was due to their gender differences in scholastic ability. Other possibilities were worry correlated with poor self-image and negative academic performance and more complex correlations were found in female students rather than male (Di Maria & Di Nuovo, 1990).

Empathy (emotional intelligence) had negative influence upon students’ anxiety (strategic learning behaviour) in this study. This may be because high emotional intelligence helps to maintain a persona’s state of harmony and peace of mind and makes him/her more self-confident in dealing with the challenges of living and learning in the educational institution. High emotional intelligence had been shown to contribute positively to students’ learning processes because having emotional intelligence helped them to fit in and adapt to their new surroundings (Goleman, 1995; Elias *et al.*, 1992, Svetlana, 2007).

The empathy accuracy (social intelligence) influenced students’ anxiety (strategic learning behaviour). This may be because social intelligence can serve as a foundation for, and help facilitate, the development of Intercultural Communication Sensitivity (ICS). Components of social intelligence, such as having an interest in (and concern for) others and demonstrating empathy may lead towards acceptance and adaptation. Developing social knowledge of cultural values provides students with the fundamental basis to engage in effective intercultural communications among their peer groups on a college campus. By developing this social knowledge, they may achieve shared meanings and meet specific needs such as fitting in with

others. Fitting in is a key element of the adolescent experience and a necessary condition for social and emotional being (Dong *et al.*, 1998-1999; Gutman & Eccles, 2007).

#### **5.3.3.3.4 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Time Management (SLB)**

Demographic factors had no influence on students' time management skills (strategic learning behaviour). This could be because time management skills are not a product of demographic factors, but are learned over time. With the exception of the high performance, most first-year students may not have adequate time management skills yet and must learn them from their study skill classes, experience, or from behaviour patterns of their high-achieving friends (Making more of your time, 2014; Sloane, 2014).

Emotional intelligence factors had no influence on students' time management (strategic learning behaviour). In this study, emotional intelligence was more connected with emotional maintenance and development and time management skills. This could be due to the context students were in where they were more connected with others in their peer group. Time management skills were learned either from observing other students or through formal training programs at the university (Clarke University, 2014).

The social cognition and concern (social intelligence) influenced students' time management (strategic learning behaviour) as time management is a behaviour



learned either through personal practice or as an activity based on training at the university level (Bandura, 1977).

#### **5.3.3.3.5 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Concentration (SLB)**

Demographic factors had no relationship with students' concentration (strategic learning behaviour). Concentration factors in adolescents seem less related to demographic factors compared to biological factors and biomedical factors (Mullan, Wong, Kothe, O'Moore, Pickles, & Sainsbury., 2014). Concentration with respect to students' habits is also a behaviour learned over time, and, because these were first-year students, many of them may not have made the transition from secondary school to the tertiary learning environment.

The findings of this current study revealed that self-regulation (emotional intelligence) has significant relationship with students' concentration (strategic learning behaviour). This is because self-regulation is the ability for self-management, and can be developed or improved over time. The better someone is at managing himself/herself, the better he/she is able to clear his/her head and focus on the task at hand, and this leads to the ability to concentrate on study (Ramdass & Zimmerman, 2011; Terry & Doolittle, 2008; Puspitasari, 2012).

The self-presentation (social intelligence) had a negative influence on students' concentration (strategic learning behaviour). One issue that educators and social philosophers have been greatly concerned with is the impact of self-presentation upon today's adolescents. A great concern is that such adolescents are increasingly

becoming narcissistic in the use of social media such as Facebook that their behaviours are changing radically (Ong *et al.*, 2011). Such involved self-presentation could lead to a decline in overall social intelligence, and combined with attention spans that socially inspired electronic multitasking shortens, may lead to a decline in the ability to concentrate for longer periods of time on academic tasks.

#### **5.3.3.3.6 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Information Processing (SLB)**

Demographic factors had no influence on students' information processing (strategic learning behaviour). Prior research seemed to indicate that personality type, rather than demographic factors, were more highly correlated with information process abilities (Xie & Zhang, 2014). Social groups were also more important with respect to information processing than demographic factors (Behave, Kramer, & Glomb, 2010).

Emotional intelligence factors had no influence on students' information processing (strategic learning behaviour). This could be due to the differences that exist between information processing for factual material and for emotions. Certainly, an emotional state impacts the ability to process information. However, while emotional intelligence might help speed the processing of emotions, emotional intelligence had relatively little impact upon these students in their cultural environment with respect to factual elements of learning behaviour (Dodonova & Dodonov, 2012).

Social cognition, self-presentation and influence (SI) can impact students' information processing (strategic learning behaviour). This could be because these

students were not operating in a cultural vacuum. Understanding the educational culture around helps them to adapt and adopt to the their new surroundings (Cattey, 1980; Olaniran & Williams, 2012; Hanges *et al.*, 2000).

#### **5.3.3.3.7 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Selecting Main Idea (SLB)**

Demographic factors had no influence on the ability of students' to select main ideas (strategic learning behaviour). Study and learning habits were not associated with demographics, but were more associated with developing study skills that could be taught. Such study skills might be learned at home, but were more likely learned in an educational environment from repeated practice, from friends, or from training provided at the university level. Indeed, many universities teach these skill sets (University of Oxford, 2014; Wingate, 2006).

The self-regulation (emotional intelligence) negatively influenced the ability of students in selecting main ideas (strategic learning behaviour). This finding seemed to counter intuitive, but perhaps reflects the fact that first-year students at the university need not so much be self-directed learners but must work cooperatively in study groups or to learn from others. However, self-regulation was also something that could be learned in the classroom and applied to learning. Perhaps the first-year students were simply unfamiliar with this dimension (Zumbrunn *et al.*, 2011).

Motivation influences the ability of students in selecting main ideas in their learning behaviour as they want to do well, learn more, and achieve better grades thus, they were more motivated to succeed than those who were not (Ormrod, 2008).

Self-presentation and influence (social intelligence) had an impact on the ability of students to select main ideas (strategic learning behaviour). This was because the ability of a student to control his/her emotions is a factor in reducing academic achievement anxiety and focusing on the learning task at hand (Leary & Allen, 2011).

#### **5.3.3.3.8 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Study Aids (SLB)**

The student's status in the family and mother's education (demographic factors) influenced students' use of study aids (strategic learning behaviour). Children who came from intact families (mother and father living together) did better than those children who came from families that were not intact (separated, divorced, one of both parents deceased). Children from intact homes are happier and better adjusted and have far fewer problems at school. Thus, the mother's role in the traditional family is vital because a mother tends to interact more often with her children than does the father, who is often working away from home. A mother, who is educated and is present in the household, tends to pass along the importance of education and study skills as she interacts with her children. Thus, children could learn the study skills from their mothers (Granz, 2006; Chevalier, Harmon, O'Sullivan, & Walker, 2010).

Motivation (emotional intelligence) had an impact on students' study aids (strategic learning behaviour). Motivation was a key determinant of achieving goals; the more motivated someone is the more likely he/she tends to learn appropriate behaviour. In

the context of education, success means learning how to study better and study aids are a big part of that process (Remali *et al.*, 2013).

However, empathy was found to have a negative influence on student using study aids in their strategic learning behaviour. This finding seemed to be an anomaly in the data set and requires further exploration. Indeed, empathy would seem to have a positive effect on using study aids, and the negative finding is perhaps an artifact of culture not explained by the variables used in this study.

Attunement, social cognition, self-presentation and concern (sub-dimensions of social intelligence) were reported to have an influence on students' study aids in their learning behaviour. Adolescent students, particularly in their first-year at the university, want to fit in with their peer groups. Thus, they tend to be attuned more to the needs and behaviours of their peer groups, tend and want to demonstrate through their actions that they fit in and attune themselves to the normative behaviours of the peer group. Using a common study method would be an example of adapting to normative behaviour patterns (Bar-On, 2006; Bar-On *et al.*, 2005).

#### **5.3.3.3.9 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Self Testing (SLB)**

Parents' marital status (demographic factor) tends to influence student's self-testing (strategic learning behaviour) (Oyerinde, 2001; Amato, 1987). The marital status of parents comprised five main conditions: living together, separated, divorced, father deceased or mother deceased. In this study, parents' marital status was divided into

two groups: living together and not living together (separated, divorced, father deceased or mother deceased). The parents' marital condition influenced students' self-testing (measures the student's ability to review material and assess what had been understood from learning and what needs further attention). Students who came from homes in which both their parents were living together tend to perform better as they were raised in homes that had both parents. This in turn made the children happy and may lead to better performance in various ways, including schooling.

Motivation and empathy (emotional intelligence) may influence students' self testing (strategic learning behaviour). Motivation is said to drive people to succeed, and emotional support from parents and peers further assists a student's ability to do better, achieve goals, and overcome barriers. Empathy, the ability to recognize the needs and feelings of others, be interested in the feelings of others and respond to the needs of others, helps create a better learning environment at the university level. This makes students work collectively well. Such collectivism is an inherent part of the Asian society (Pintrich, 2003; Zhu & Leung, 2011).

Social cognition, self-presentation and concern (social intelligence) were found to influence students' self testing (strategic learning behaviour). Social cognition tends to lead students to adapt themselves better to the norms of society. Thus, they want to do as their peers do, and, if study habits are part of that peer group, a student will develop such study habits. On the other hand, self-presentation is the ability of an individual through his/her emotional expression connects to his/her peers. Students in a collective cultural environment tend to receive study help from others in their

peer group. Concern fits this collective profile as well because the ability to think of others directly leads to the collective study and the passing on of study skills (Bandura, 1977; Brown, 2008; Hofstede *et al.*, 2010).

#### **5.3.3.3.10 The influence of Demographic Factors, Emotional Intelligence and Social Intelligence on Test Strategies (SLB)**

Demographic factors were found not to relate to students' test-taking strategies (strategic learning behaviour). Higher education is an experiential process and based on how long students and faculty have been part of that process. The longer students and faculty members are engaged in the process, the more likely the demographic factors have an impact upon them. This is because these experiences help create an educational cultural climate (Bulach & Berry, 2001). Findings by Islam *et al.* (2011) support the notion that the length of engagement in the educational process creates better learning and, as students grow older, age tend to have an impact. The first-year students in this study generally have homogeneous backgrounds. Thus, the expectation might be that changes in test-taking strategies related to aptitudes and practices would be more properly studied longitudinally so as to measure change over point in time.

Empathy (emotional intelligence) was found to have a negative influence on students' test-strategies (strategic learning behaviours). This finding may be influenced by several factors. First, students may need certain levels of empathy before it becomes predictive of academic performance. Second, students develop a more profound sense of empathy as they grow older. Third, empathy can be a

learned behaviour. Students in this study are new to the campus, new to their peer group, and new to the learning process, perhaps, they are not astute in their ability to recognize and respond to the needs of their fellow students (Momentous Institute, 2014).

Attunement and empathy accuracy (social intelligence) were reported to have an influence on students' test-taking strategies (strategic learning behaviour). Both attunement and social intelligence seemed to relate to group behaviour. These students were mostly of the same age and with similar cultural experiences. Thus, they should be able to interpret the behaviour of the same peer group. Quite naturally, students of this age tend to react to peer group behaviour and have the desire to "fit in" (Nasir & Masrur, 2010).

#### **5.4 Conclusion**

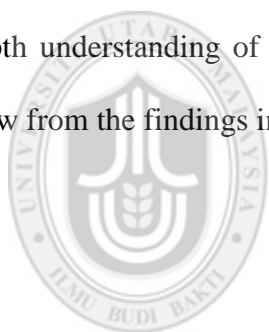
In the context of the university, the students who enrolled at the university could be the first in their families to seek a degree. So besides being away from home, they arrived with a sense of helplessness that is a product of home, hearth, culture and the strangeness of these new surroundings. In this case, perhaps the university could develop a mentorship program with the seniors to help the first-years fit in socially, culturally, and academically in the campus life. This may help the first-year students to fit in and adjust to their studies as well as to their new environment. Such a program would help these new students to develop the correct techniques for their study, learn effectively, and obtain better grades.



Social skills are also important in preparing young people to be mature and succeed in their adult roles within the family, workplace, and community (Ten Dam & Volman, 2007). The university should pay special attention to this factor because social intelligence allows people to succeed not only in their social life, but also in their academic, personal, and future professional matters.

The findings of this study are of utmost importance to the university administrators as it helps them to focus on the lack of current support provided to the students who are new to the campus life. However, the respondents in the study were only first-year students in a university and the findings cannot be generalized. Therefore, future study should include respondents from all sessions, as the findings from such a study will indicate whether efforts made to support the students during their first-year will leave an impact on their second and following years at the university. Similarly, respondents should come from all programs offered at the university so that the findings can be generalized to the students in Songkla Rajabhat University instead of just a few selected faculties. This will provide a clearer picture of the well-being of students in the university by identifying which semester and which faculty or program groups of students need extra support from the student affairs department or from the faculty concerned. In addition, a longitudinal study will also indicate which year the students finally improve their level of emotional intelligence, social intelligence and strategic learning behaviour. Only with such efforts can the university be capable of ensuring the students stay on to finish their studies.

Future researchers should include other respondents besides students, such as the university personnel in charge of student affairs as they are the implementers of the support system to the students and teaching staff who are directly involved with students learning and parents who are the important adults in the students' life. All these stakeholders play a role in ensuring that students stay on till they graduate and as such their views on the well-being of the students will help to fill the gap and weaknesses in providing the necessary support to students on campus. In order that the findings of the study can be generalized, the study should be extended to other universities and colleges irrespective of whether they are public or private. In addition, the methodology should also include interviews as these will give an in depth understanding of the root of the issues on the matter besides a general overview from the findings in the survey.



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## REFERENCES

- Abdulzakur Binzafiie. (2009). *Pornor school in the south of Thailand Among the multi-cultural in Thai education*. Thai NGO.org. Retrieved from <http://www.thaingo.org/writer/view.php?id=1069>.
- Advisory Committee on Student Financial Assistance. (2012). *Pathways to success: A report to the U.S. Congress and the Secretary of Education*. Washington, D.C. Retrieved from <http://www2.ed.gov/about/bdscomm/list/acsfa/ptsreport2.pdf>.
- Afolabi, O. A., Ogunmwonyi, E., & Okediji, A. (2009). Influence of Emotional Intelligence and Need for Achievement on Interpersonal Relations and Academic Achievement of Undergraduates. *Educational research quarterly*, 33(2), 60-72.
- Al Makahleh, A.A.A. & Ziadat, H.A. (2012). Social Intelligence and Personal Characteristics of Talented Secondary School Students in King Abdullah II. *Educational Research*, 3(10), 785-798.
- Albaili, M. A. (1997). Differences among low-, average-and high-achieving college students on learning and study strategies. *Educational Psychology*, 17(1-2), 171-177.
- Albrecht, K. (2015). Social intelligence theory. Retrieved on 18 July 2015 from <https://www.karlalbrecht.com/siprofile/siprofiletheory.htm>
- Alhajraf, N. M., & Alasfour, A. M. (2014). The Impact of Demographic and Academic Characteristics on Academic Performance. *International Business Research*, 7(4), p92.
- Al-Hasi, K.B.H. (2010). Development of adolescents. Retrieved from <http://www.e-daiyah.com/?q=node/504>.
- Allen, D. (1999). Desire to finish college: An empirical link between motivation and persistence. *Research in Higher Education* 40(4), 461-485.
- Alloway, T.P. (2010). *Improving working memory*. New York: Sage Publications.
- Amari, K., Motlagh, S.E., Zalani, H.A., & Parhon, H. (2011). Regarding the students, students academic achievement requires coordination and interaction between different aspect of motivation. *Procedia and Behavioural Sciences*, 15, 399-402.

- Amato, P. R. (1987) Family processes in one-parent, stepparent and intact families the child's point of view. *Journal of Marriage and the Family*, 49(3) 27-37.
- Amato, P. R. (2005) The impact of family formation change on the cognitive, social, and emotional well-being of the next generation. *The Future of Children* , 15, 75-96.
- American Psychological Association. (2014). Marriage and divorce. Retrieved from <http://www.apa.org/topics/divorce/>.
- Aminpoor, H. (2013). Relationship between social intelligence and happiness in Payame Noor University students. *Annals of Biological Research*, 4(5), 165-168.
- Balalami, N.J., Ghanji, A.A., Tosi, S.A.D., Ghohargani, M., Nabavizadeh, E., & 6 Kia, H.A. (2013). Demographic variables effect on Emotional Intelligence Axis. *Life Science Journal*, 10(4), 302-307. Retrieved on 11 January 2015 from <http://www.lifesciencesite.com>.
- Bales, R. F. (1950). A set of categories for the analysis of small group interaction. *American Sociological Review*, 15, 257-263.
- Bandalos, D. L., Yates, K., & Thorndike-Christ, T. (1995). Effects of math self-concept, perceived self-efficacy, and attributions for failure and success on test anxiety. *Journal of Educational Psychology*, 87, 611–623.
- Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behavioural change. *Psychology Review*, 84(2), 191-215.
- Bandura, A. (1977). Social learning theory. New York: General Learning Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman Press.
- Barbera, K.I., Charoenchote, W., Im, S., & Barchard, K.A. (2003). Relatiing Emotional and Social Intelligence to Sex and Age. Poster presented at the Nevada State Psychology annual meeting, Las Vegas, Nevada, May 17.
- Bar-On, R. (1988). *The development of a concept of psychological well-being*. Unpublished doctoral dissertation, Rhodes University, South Africa.
- Bar-On, R. (1997). Bar-On Emotional Quotient Inventory (EQ-I): Technical Manual Toronto, Ontario, Canada: Multi-Health Systems.
- Bar-On, R. (1997). The Emotional Quotient Inventory (EQ-i): A test of emotional intelligence: Toronto: Multi-Health Systems.

- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory.
- Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema, 18*, 13-25.
- Bar-On, R., Handley, R., & Fund, S. (2005). The impact of emotional and social intelligence on performance. In V. Druskat, F. Sala, and G. Mount (Eds.), *Linking emotional intelligence and performance at work: Current research evidence*. Mahwah, NJ: Lawrence Erlbaum.
- Baron-Cohen, S., Wheelwright, S., & Jolliffe, A. T. (1997). Is there a "language of the eyes"? Evidence from normal adults, and adults with autism or Asperger syndrome. *Visual Cognition, 4*(3), 311-331.
- Bates, L., Luster, T., & Vandenberg, M. (2003). Factors related to social competence in elementary school among children of adolescent mothers. *Social Development, 12*(1), 107-124.
- Batson, C. D., Chang, J., Orr, R., & Rowland, J. (2002). Empathy, attitudes, and action: Can feeling for a member of a stigmatized group motivate one to help the group?. *Personality and Social Psychology Bulletin, 28*(12), 1656-1666.
- Baumrind, D. (1967). Child rearing practices anteceding three patterns of preschool behaviour. *Genetic Psychology Monographs, 75*, 43-88.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monograph, 4* (1, Pt. 2).
- Behave, D.P., Kramer, A., & Glomb, T.G. (2010). Work family conflict in workgroups: Social information processing, support, and demographic dissimilarity. Research Collection Lee Kong Chian School Of Business. Singapore Management University. Retrieved on 9 December 2014 from [http://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=4517&context=lkcs\\_b\\_research](http://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=4517&context=lkcs_b_research).
- Beheshtifar, M., & Roasaei, F. (2012). Role of Social Intelligence in Organizational Leadership. *European Journal of Social Sciences, 28*(2), 197-203.
- Benz, C. R., Fabian, M. P., & Nelson, W. R. (1996). Assessing study skills of students with learning disabilities. *The Clearing House, 69*, 349-353.
- Berkeley Student Learning Center. (2015). CalRen project: Study tips. Retrieved on 13 September 2015 from <http://slc.berkeley.edu/study-and-success-strategies>.

- Besser, A., Flett, G.L., & Hewitt, P.L. (2010). Perfectionistic self-presentation and trait perfectionism in social problem-solving ability and depressive symptoms. *Journal of Applied Social Psychology, 40*, 2121-2154.
- Bird, K, Hattel, K, Sasaki, E. & Attapich, L. (2011). Poverty, income inequality, and microfinance in Thailand. Manila: Asian Development Bank.
- Board, J. (n.d.). Parenting – Influence of parent’s level of education. Education Encyclopedia. Retrieved on 2 May 2015 from <http://education.stateuniversity.com/pages/2311/Parenting-INFLUENCE-PARENTS-LEVEL-EDUCATION.html>.
- Boekaerts, M., & Pekrun, (2016). Emotions and emotion regulation in academic settings. In L. Corno, E.M. Anderman (eds.) E.M., *Handbook of educational psychology* (3<sup>rd</sup> ed) (pp. 76-90). New York: Routledge.
- Bond, B. & Manser, R. (2009). Emotional intelligence interventions to increase student success. Toronto: Higher Education Quality Council of Ontario.
- Božinović, N., & Sindik, J. (2011). Gender differences in the use of learning strategies in adult foreign language learners. *Metodicki obzori, 6*(11), 5-20.
- Braten, I., & Olaussen, B. S. (1998). The learning and study strategies of Norwegian first-year college students. *Learning and Individual Differences, 10*(4), 309-327.
- Brinkerhoff, N. (2009). Main Reason for Dropping Out of College? Money. Retrieved from <http://www.allgov.com/>.
- Briones, E., & Taberner, C. (2012). Social cognitive and demographic factors related to adolescents’ intrinsic satisfaction with school. *Social Psychology of Education, 15*(2), 219-232.
- Brown, B. B., Mounts, N., Lamborn, S.D., & Steinberg, L. (1993). Parenting Practices and Peer Group Affiliation in Adolescence. *Child Development, 64*(2), 567-482.
- Brown, V.A. (2008). A collective learning pattern. EuroPLoP Workshop, Klosters Irsee, Bavaria July 9-13, 2008. Retrieved on 9 December 2014 from <http://ceur-ws.org/Vol-610/paper01.pdf>.
- Buchmann, C., & DiPrete, T. A. (2006). The growing female advantage in college completion: The role of family background and academic achievement. *American Sociological Review, 71*, 515–541.

- Buck, R. (1976). A test of nonverbal receiving ability: Preliminary studies. *Human Communication Research*, 2(2), 162-171.
- Bugg, J. M., DeLosh, E. L., & McDaniel, M. A. (2008). Improving students' study habits by demonstrating the mnemonic benefits of semantic processing. *Teaching of Psychology*, 35(2), 96-98.
- Buhrmester, D. (1990). Intimacy of friendship, interpersonal competence, and adjustment during preadolescence and adolescence. *Child development*, 61(4), 1101-1111.
- Bulach, C. R. & Berry, J. (2001). The Impact of Demographic Factors on School Culture and Climate. Paper presented at the Southern Regional Council of Educational Administrators in Jacksonville, FL, November 3.
- Burns, A. C., & Bush, R. F. (2003). *Marketing research (4<sup>th</sup> ed.)*. New Jersey: Pearson Education Inc.
- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological review*, 106(4), 676-713.
- Canada, Department of Justice. (2013). Tracking the effects of divorce. Retrieved from [http://www.justice.gc.ca/eng/rp-pr/fl-lf/divorce/2004\\_1/p2.html#a2\\_1](http://www.justice.gc.ca/eng/rp-pr/fl-lf/divorce/2004_1/p2.html#a2_1).
- Cano, F. (2006). An in-depth analysis of the learning and study strategies inventory (LASSI). *Educational and Psychological Measurement*, 66(6), 1023-1038.
- Cano-Garcia, F., & Justicia-Justicia, F. (1994). Learning strategies, styles and approaches: an analysis of their interrelationships. *Higher Education*, 27(2), 239-260.
- Carnegie Mellon. (2015). *Best practices for teaching first-year undergraduates*. Retrieved on 2 November 2015 from <https://www.cmu.edu/teaching/resources/PublicationsArchives/InternalReports/BestPractices-1stYears.pdf>.
- Cassady, J.C., & Johnson, R.E. (2002). Cognitive test anxiety and academic performance. *Contemporary Educational Psychology*, 27(2), 270–295.
- Cathey, M. (1980). Cultural differences in information processing. *Journal of American Indian Education*, 20(1). Retrieved on 9 December 2014 from <http://jaie.asu.edu/v20/V20S1cul.html>.
- Chamberlin, K. (2008). Lost boys. *Monitor on Psychology*, 39, 44–46.

- Chandra, S. C. (1985). A Comparative Study of the Adolescent Boys and Girls in Relation to Attitude towards School Adjustment and Scholastic Achievement. *The Indian Journal of Community Guidance Service*, 2(3).
- Chapell, M.S., Blanding, Z.B., & Silverstein, M. E. (2005). Test- anxiety and academic achievement in undergraduate and graduate students. *Journal of Education Psychology*, 97(2), 268-278.
- Chapin, F. S. (1942). Preliminary standardization of a social insight scale. *American Sociological Review*, 7(2), 214-225.
- Chaplin, T.M., & Aldao, A. (2013). Gender differences in emotional expression in children: A meta-analysis. *Psychological Bulletin*, 139(4), 735-765.
- Cherniss, C. (2000). Social and Emotional Competence in the Workplace. In R. Bar-On & D.A. Parker (Eds.), *The Handbook of Emotional Intelligence: Theory, Development, Assessment, and Application at Home, School, and in the Workplace* (pp. 433-458). San Francisco: Jossey-Bass.
- Cherniss, C. (2001). Emotional intelligence and organizational effectiveness. *The emotionally intelligent workplace: How to select for, measure, and improve emotional intelligence in individuals, groups, and organizations*, 27-44.
- Chevalier, A., Harmon, C., O'Sullivan, V., & Walker, I. (2010). Chevalier, Harmon, O'Sullivan, Walker, 2010). The impact of parental income and education on the schooling of their children. Lancaster University Working Paper. Retrieved on 9 December 2014 from <http://eprints.lancs.ac.uk/49018/1/Document.pdf>.
- Choy, S. (2001). Students Whose Parents Did Not Go to College: Postsecondary Access, Persistence, and Attainment. Findings from the Condition of Education, 2001. Washington, DC: U.S. Department of Education, National Center for Education Statistics. <http://nces.ed.gov/pubs2001/2001126.pdf>.
- Chuasakul, S. (2011). *The causal factors and solve the problem of dropping out of school*. Office of the vocational education commission, Thailand.
- CIA factbook. (2015). Retrieved on 18 July 2015 from <https://www.cia.gov/library/publications/the-world-factbook/geos/th.html>.
- Clarke University. (2014). Essential skills for college students. Retrieved on 9 December 2014 from <http://www.clarke.edu/page.aspx?id=22553>.



- Clarke, J. A., Nelson, K. J., & Stoodley, I. D. (2013). The place of higher education institutions in assessing student engagement, success and retention: A maturity model to guide practice.
- Coalition of Essential Schools. (2006). Student Centered Teaching and Learning. Retrieved from <http://essentialschools.org/benchmarks/student-centered-teaching-and-learning/>.
- College View. (2015). Transitioning from high school to college academics. Retrieved on 30 October 2015 from <http://www.collegeview.com/articles/article/transitioning-from-high-school-to-college-academics/>.
- Colorado, J. T., & Eberle, J. (2010). Student demographics and success in online learning environments. *Emporia State Research Studies*, 46(1), 4-10.
- Colston, R. D. (2008). *The relationship between emotional intelligence and academic achievement: implications of birth order based on social rank for nontraditional adult learners*. Ph.D. Thesis. Capella University.
- Conley, D. (2007). *Redefining college readiness*. Eugene, Ore.: Educational Policy Improvement Center.
- Cooper, R. K., & Sawaf, A. (1997). *Executive EQ, emotional intelligence in leadership and organizations*. New York: The Berkley Publishing Group.
- Cornell University. (2015). Strategies for college success. Retrieved on 13 September 2015 from <https://www.sce.cornell.edu/sc/programs/index.php?v=165>.
- Cozby, P. C. (2004). *Methods in behavioural research*. New York: McGraw Hill.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative*. New Jersey: Upper Saddle River.
- Davis, D. (2000). *Business research for decision making (5<sup>th</sup> ed.)*. Belmont: Duxbury Press.
- DeJong, A. (2010). Working mothers: Cognitive and behavioural effects on children. *Journal of Undergraduate Research*, 8, 75-82. Retrieved from <https://www.sdstate.edu/jur/2010/upload/Working-Mothers-Cognitive-and-Behaviorial-Effects-on-Chidren.pdf>.

- Deming, M. P., Valeri-Gold, M., & Idleman, L. S. (1994). The reliability and validity of the Learning and Study Strategies Inventory (LASSI) with college developmental students. *Literacy Research and Instruction*, 33(4), 309-318.
- Development of adolescents. Posted by At-tabua August 10, 2011. Retrieved from <http://www.e-daiyah.com/?q=node/504>.
- Di Maria, F., & Di Nuovo, S. (1990). Gender differences in social and test anxiety. *Personality and Individual Differences* 11(5), 525-530.
- Dickinson, D. J., O'Connell, D. Q., & Dunn, J. S. (1996). Distributed study, cognitive study strategies and aptitude on student learning. *Psychology: A Journal of Human Behaviour*, 33, 31-39.
- Dodonova, Y. A., & Dodonov, Y. S. (2012). Speed of emotional information processing and emotional intelligence. *International Journal of Psychology*, 47(6), 429-437.
- Dong, W., Day, K.D., & Collaço, C.M. (1998-1999). Overcoming ethnocentrism through developing intercultural communication sensitivity and multiculturalism. *Human Communication*, 11(1), 27-38.
- Downey, L. A., Mountstephen, J., Lloyd, J., Hansen, K., & Stough, C. (2008). Emotional intelligence and scholastic achievement in Australian adolescents. *Australian Journal of Psychology*, 60(1), 10-17.
- Duckworth, A., Quinn, P.D., Lynam, D.R., Loeber, R., & Strouthamer-Loeber, M. (2011). Role of test motivation in intelligence testing. *Proceedings of the National Academy of Sciences of the United States of America*, 108(19), 7716-7720.
- Dulewicz, V. & Higgs. M., (2000). Emotional intelligence - A review and evaluation study. *Journal of Managerial Psychology*, 15(4), 341-372. Retrieved October 15, 2007, from ABI/INFORM Global database. (Document ID: 115922301).
- Dunlosky, J., Rawson, K.A., Marsh, E.J., Nathan, M.J., & Willingham, D.T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14(1), 4-58. Retrieved on 18 July 2015 from <http://psi.sagepub.com/content/14/1/4.full.pdf+html?ijkey=Z10jaVH/60XQM&keytype=ref&siteid=sppsi>.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256-273.

- Dweck, C.S. (2002). The development of ability conceptions. In A. Wigfield & J. Eccles (eds.), *The development of achievement motivation*. New York: Academic Press.
- Eccles J. S., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., & Midgley, C. (1983). Expectancies, values, and academic behaviours. In J. T. Spence (Ed.), *Achievement and achievement motivation* (pp. 75–146). San Francisco, CA: W. H. Freeman.
- Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon (Series Ed.) and N. Eisenberg (Vol. Ed.), *Handbook of child psychology* (5th ed., Vol. III, pp. 1017–1095). New York: Wiley.
- Ekman, P., & Friesen, W. V. (1974). Nonverbal behaviour and psychopathology. In R. J. Friedman & M. Katz (Eds.), *The psychology of depression: Contemporary theory and research* (pp. 3-31). Washington, DC: Winston & Sons.
- Ekman, P., & Friesen, W. V. (1978). *Facial Action Coding System*. Palo Alto, CA: Consulting Psychologists Press.
- Ekman, P., Friesen, W. V., & Hager, J. C. (2002). *The facial action coding system CD-ROM*. Salt Lake City, UT: Research Nexus.
- Ekman, P., Friesen, W. V., & Tomkins, S. S. (1971). Facial affect scoring technique: A first validity study. *Semiotica*, 3(1), 37-58.
- Elias, M. J., Ubriaco, M., Reese, A. M., Gara, M. A., Rothbaum, P. A., & Haviland, M. (1992). A measure of adaptation to problematic academic and interpersonal tasks of middle school. *Journal of school Psychology*, 30(1), 41-57.
- Elizabeth Bahe (n.d). Retrieved from [www.cru.org/communities/location/Europe/Latvia/comba](http://www.cru.org/communities/location/Europe/Latvia/comba).
- Emmerling, R. J., & Goleman, D. (2003). Emotional intelligence: Issues and common misunderstandings. *Issues in Emotional Intelligence*, 1(1), 1-32.
- Entwistle, N. J., & McCune, V. (2004). The conceptual bases of study strategy inventories. *Educational Psychology Review*, 16, 325-346.
- Erickson, B.L., & Peters, C.B. & Strommer, D.W. (2006). *Teaching first-year college students*. Somerset, NJ: Jossey-Bass.

- Fariselli, L. Ghini, M. & Freedman, J. (2008). *Age and emotional intelligence*. Retrieved on 2 May 2015 from [https://www.6seconds.org/sei/media/WP\\_EQ\\_and\\_Age.pdf](https://www.6seconds.org/sei/media/WP_EQ_and_Age.pdf).
- Fariselli, L., Ghini, M., & Freedman, J. (2006, updated in 2008). White Paper: Age and Emotional Intelligence. Retrieved on 11 January 2015 from [http://www.6seconds.org/sei/media/WP\\_EQ\\_and\\_Age.pdf](http://www.6seconds.org/sei/media/WP_EQ_and_Age.pdf).
- Fariselli, L., Ghini, M., & Freedman, J. (2008). Age and emotional intelligence. *Sixseconds: The Emotional Intelligence Network*.
- Fatima, N., H Shah, S. M., & Kiani, A. (2011). An Empirical Evidence of Relationship between Emotional Intelligence (EI) and Academic Achievement (AA) of Undergraduate Students. *International Journal of Education and Social Sciences (IJESS)*, 1(3).
- Ferenandez, R., Salmouson, Y, & Griffins, R. (2012.) Emotional intelligence as a predictor of academic performance in first-year accelerated graduate entry nursing students. *Journal of Clinical Nursing*, 21(23-24). 3485-3492.
- Ferguson, H.B., Bovaird, S. & Mueller, M.P. (2007). The impact of poverty on educational outcomes for children. *Pediatrics & Child Health*, 12, 701-706.
- Ferrer, L. M. (2004). Developing understanding and social skills through cooperative learning. *Journal of Science and Mathematics Education in Southeast Asia*, 27(2), 45-61.
- Flanders, N. A. (1964). Some relationships between teacher influence, pupil attitudes, and achievement. In B. J. Biddle & W. J. Ellena (Eds.), *Contemporary research on teacher effectiveness* (pp. 196-231). New York: Holt, Rinehart and Winston.
- Flanders, N. A. (1966). *Interaction analysis in the classroom: A manual for observers*. Unpublished manuscript, University of Michigan.
- Fleming, V. M. (2002). Improving students' exam performance by introducing study strategies and goal setting. *Teaching of Psychology*, 29(2), 115-119.
- Flippo, R. F., Becker, M. J., & Wark, D. M. (2000). Preparing for and taking tests. *Handbook of college reading and study strategy research*. Mahwah, NJ: Erlbaum.
- Fofack, H. , & Zeufack, A. "Dynamics of Income Inequality in Thailand: Evidence from Household PSEUDO-Panel Data." The World Bank, Washington DC (1999).

- Forbes. (2012). Intelligence is overrated. Retrieved on 23 September 2015 from <http://www.forbes.com/sites/keldjensen/2012/04/12/intelligence-is-overrated-what-you-really-need-to-succeed/>.
- Fraser, M.W., Galinsky, M.J., Smokowski, P.R., Day, S.H., Terzian, M.A., Rose, R.A., & Guo, S. (2005). Social information-processing skills training to promote social competence and prevent aggressive behaviour in the third grade. *Journal of Consulting and Clinical Psychology, 73*(6), 1045-1055.
- Frisco, M. L., Muller, Ch., & Frank, K. (2007). Parents' Union Dissolution and Adolescents' School Performance: Comparing Methodological Approaches. *Journal of Marriage and Family, 69*, 721–741.
- Gadzella, B. M., Masten, W. G., & Stacks, J. (1998). Students' stress and their learning strategies, test anxiety, and attributions. *College Student Journal, 32*, 416-422.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). Collecting research data with questionnaires and interviews. *Educational research: An introduction, 227-261*.
- Gammie, E., Paver, B., Gammie, B., & Duncan, F. (2003a). Gender differences in accounting education: an undergraduate exploration. *Accounting Education: An International Journal, 12*(2), 177–196.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligence*. New York, NY: Basic Books.
- Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences (3rd ed.)*. New York: Basic Books.
- George, JM. (2008). 'Emotions and leadership: the role of emotional intelligence', *Human Relations, 53* (8), 1027-1055.
- Gesn, P. R., & Ickes, W. (1999). The development of meaning contexts for empathic accuracy: Channel and sequence effects. *Journal of Personality and Social Psychology, 77*(4), 746-761.
- Gettinger, M., & Seibert, J. K. (2002). Contributions of study skills to academic competence. *School Psychology Review, 31*(3), 350-365.
- Goffman, E. (1959). *The presentation of self in everyday life*. NY: Doubleday.
- Goleman, D. (1995). *Emotional intelligence*. New York, NY: Bantam Books.

- Goleman, D. (1998). *Working with emotional intelligence*. New York, NY: Bantam.
- Goleman, D. (2001). Emotional intelligence: Issues in paradigm building. In Cherniss, C. & Goleman, D. (Eds.), *The Emotionally Intelligent Workplace* (pp. 13-26). San Francisco: Jossey-Bass.
- Goleman, D. (2006). *Social intelligence: The new science of human relationships*: Bantam.
- Goleman, D. (2006). The socially intelligent. *Educational Leadership*, 64(1), 76-81.
- Goleman, D. (2006). *Emotional intelligence*. Bantam.
- Goleman, R. (n.d.). EI assessments. Retrieved on 23 September 2015 from <http://www.danielgoleman.info/ei-assessments/>.
- Gottfried, A. E. (1990). Academic intrinsic motivation in young elementary school children. *Journal of Educational Psychology*, 82(3), 525-538.
- Grabill, K. M., Lasane, T. P., Povitsky, W. T., Saxe, P., Munroe, G. D., Phelps, L. M., & Straub, J. (2007). Gender and study behaviour: How social perception, social norm adherence, and structured academic behaviour are predicted by gender. *North American Journal of Psychology*, 7, 7-24.
- Granz, J. (2006). The impact of parent's backgrounds on their children's education. Retrieved on 9 December 2014 from [http://www.macalester.edu/educationreform/public\\_intellectualessay/gratz.pdf](http://www.macalester.edu/educationreform/public_intellectualessay/gratz.pdf).
- Greene, B. A., & DeBacker, T. K. (2004). Gender and orientations toward the future: Links to motivation. *Educational Psychology Review*, 16, 91-132.
- Gresham, F. M. (2002). Teaching social skills to high-risk children and youth: Preventative and remedial strategies. In M. R. Shinn, H. M. Walker, & G. Stoner (Eds.), *Interventions for academic and behaviour problems II: Preventive and remedial approaches* (pp. 403-432). Bethesda, MD: National Association of School Psychologists.
- Grimes, S. K. (1995). Targeting academic programs to student diversity utilizing learning styles and learn-ing-study strategies. *Journal of College Student Development*, 36, 422-430.
- Guilford, J. P. (1967). *The nature of human intelligence*. New York: McGraw-Hill.

- Gurian, M., & Stevens, K. (2005). *The minds of boys: Saving our sons from falling behind in school and life*. San Francisco: Jossey-Bass.
- Gutman, L.M., & Eccles, J.S. (2007). Stage-environment fit during adolescence: Trajectories of family relations and adolescent outcomes. *Developmental Psychology*, *43*(2), 522-537.
- Hahs-Vaughn, D. (2004). The impact of parents' education level on college students: An analysis using the Beginning Postsecondary Students Longitudinal Study 1990–92/94. *Journal of College Student Development*, *45*, 483–500.
- Hair, J. F., Money, A. H., Samouel, P. & Page, M. (2007). *Research methods for business*. West Sussex: John Wiley & Sons Ltd.
- Hair, N. L., Hanson, J. L., Wolfe, B. L., & Pollak, S. D. (2015). Association of child poverty, brain development, and academic achievement. *JAMA pediatrics*, *169*(9), 822-829.
- Hanges, P., Lord, R., & Dickson, M. (2000). An Information-processing perspective on leadership and culture: A case for connectionist architecture. *Applied psychology*, *49*(1), 133-161.
- Hardre, P.L. & Reeve, J. (2003). A Motivational Model of Rural Students' Intentions to Persist in, Versus Drop Out of, High School. *Journal of Educational Psychology*, *95* (2), 347–356.
- Hastings, P. D., Zahn-Waxler, C., Robinson, J., Usher, B., & Bridges, D. (2000). The development of concern for others in children with behaviour problems. *Developmental Psychology*, *36*, 531–546.
- Haugen, P.T. (2006). Empathic Accuracy and Adolescent Romantic Relationships. Unpublished dissertation, University of Tennessee, Knoxville, Tennessee. Retrived on 11 January 2015 from [http://trace.tennessee.edu/cgi/viewcontent.cgi?article=3200&context=utk\\_graddiss](http://trace.tennessee.edu/cgi/viewcontent.cgi?article=3200&context=utk_graddiss).
- Helou, S., & Viitala, T. (2007). How Culture and Motivation Interacts?:-A Cross-Cultural Study.
- Herrnstein, R. J., & Murray, C. A. (1996). *The bell curve: Intelligence and class structure in American life*: Free Press.
- Hodkinson, P., & Bloomer, M. (2001). Dropping out of further education: Complex causes and simplistic assumptions. *Research Papers in Education*, *16*(2), 117-140.

- Hofstede, G., Hofstede, G.J., & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind* (3<sup>rd</sup> Ed.) New York: McGraw-Hill USA.
- Horn, L.J. (1998). *Stopouts or Stayouts? Undergraduates who leave college in their first year*. Washington, DC: National Center for Educational Statistics, NCES 1999- 087.
- Hout, M., Raftery, A.E., & Bell, E.O. (1993). Making the grade: Educational stratification in the United States, 1925-1989. pp. 25-49 in Y. Safit and HP Blossfeld (Eds.), *Persistent inequality: Changing inequality in 13 countries* (pp. 25-49). Boulder, CO: Westview.
- Hunt, T. (1928). The measurement of social intelligence. *Journal of Applied Psychology*, 12(3), 317-334.
- Hybels, S., & Weaver II, R.L. (2014). *Communicating effectively* (11<sup>th</sup> ed). New York: McGraw-Hill Education.
- Hymel, S., Comfort, C., Schonert-Reichl, K., & McDougal, P. (1996) Academic failure and school dropout: The influence of peers. In: J. Juvonen & K. R. Wentzel (Eds) *Social Motivation: Understanding children's school adjustment* (pp. 313–345). Cambridge: Cambridge University Press.
- Ickes, W. (2001). Measuring empathic accuracy. In J. H. Hall & F. J. Bernieri (Eds.), *Interpersonal Sensitivity: Theory and Management*. Mahweh, N. J.: Erlbaum.
- Ickes, W., Stinson, L., Bissonnette, V., & Garcia, S. (1990). Naturalistic social cognition: Empathic accuracy in mixed-sex dyads. *Journal of Personality and Social Psychology*, 59(4), 730-742.
- Idaho State University. (n.d.) Student success center. Retrieved on 13 September 2015 from <http://www.isu.edu/success/strategies/handouts.shtml>.
- Institute of Medicine and National Research Council Committee on the Science of Adolescence. (2011). The psychology of adolescence. In *The science of adolescent risk-taking: Workshop report*. Available online at <http://www.ncbi.nlm.nih.gov/books/NBK53420/#top>.
- International Labour Organization. (2013). Global employment trends 2013. Retrieved on 2 May 2015 from <http://www.ilo.org/global/research/global-reports/global-employment-trends/2013/lang--en/index.htm>.
- Ishitani, T.T. (2003). A longitudinal approach to assessing attrition behaviour among first generation students: Time-varying effects of pre-college characteristics. *Research in Higher Education*, 44(4), 433-450.



- Islam, M. A., Rahim, A. A., Tan, C. L., & Momtaz, H. (2011). Effect of demographic factors on e-learning effectiveness in a higher learning institution in Malaysia. *International Education Studies*, 4(1), p112.
- Jan, M., Hyder, A., & Ruhi, N (2013). An assessment of emotional Intelligence among girls students studying in professional colleges. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)* 17(6), 22-26.
- Javed, N., & Nasreen, A. (2014). The role of emotional intelligence in academic performance of male and female students in the University of the Punjab. *Journal of Education and Practice*, 5(4), 32-35.
- Jones, K., & Day, J. D. (1997). Discrimination of two aspects of cognitive-social intelligence from academic intelligence. *Journal of Educational Psychology*, 89(3), 486-497.
- Jordan, D., & Metais, J.L. (2000). Developing emotional intelligence in the classroom. Retrieved on 11 January from [http://www.nfer.ac.uk/nfer/pre\\_pdf\\_files/00\\_24\\_11.pdf](http://www.nfer.ac.uk/nfer/pre_pdf_files/00_24_11.pdf).
- Jordan, E. (2001). Exclusion of Travellers in state schools. *Educational Research*, 43(2), 117-132.
- Jun, M., Cai, S., & Shin, H. (2006). TQM practice in maquiladora: Antecedents of employee satisfaction and loyalty. *Journal of Operations Management*, 24(1), 791-812.
- Kaighobadi, M., & Allen, M. (2008). Investigating Academic Success Factors for Undergraduate Business Students. *Decision Sciences Journal of Innovative Education*, 6(2), 427-436.
- Kanyanamit, T. (1987). *The study to be successful*. Karusapa Ladprao printing, Bangkok, Thailand.
- Kasikornthi Research Center. Retrieved on 11 December 2012 from <https://www.kasikornresearch.com/EN/K-EconAnalysis/Pages/ViewSummary.aspx?docid=31325>.
- Katz, L. G., McClellan, D. E., Fuller, J. O., & Walz, G. R. (1995). *Building social competence in children: A practical handbook for counselors, psychologists, and teachers*. ERIC Elementary and Early Childhood Education Clearinghouse. Washington, DC: U.S. Department of Education.

- Keightley, M.L., Winocur, G, Burianova H, Hongwanishkul D, & Grady, C.L. (2006). Age effects on social cognition: Faces tell a different story. *Psychology of Aging*. 21(3), 558-72.
- Kelly, G. (1955). *Personal construct psychology*: Norton Press NY.
- Keup, J. R. & Stolzenberg, E. B. (2004). *The 2003 Your First College Year (YFCY) Survey: Exploring the Academic and Personal Experiences of First-Year Students (Monograph No. 40)*. Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Khamkhien, A. (2010). Factors affecting language learning strategy reported usage by Thai and Vietnamese EFL learners. *Electronic Journal of Foreign Language Teaching*, 7(1), 66–85. Retrieved on 14 September 2015 from <http://e-flt.nus.edu.sg/v7n12010/khamkhien.pdf>.
- Kihlstrom, J. F., & Cantor, N. (2000). Social intelligence. *Handbook of intelligence*, 2, 359-379.
- Kim, J. (2008). *The impact of dual and articulated credit on college readiness and total credit hours in four selected community colleges*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign. Retrieved from: <http://occr.illinois.edu/node/337>.
- King, J. E. (2002). *Crucial choices: How students' financial decisions affect their academic success*. Washington, DC: American Council on Education. Retrieved online 31 March 2009 from [http://www.acenet.edu/bookstore/pdf/2002\\_crucial\\_choices.pdf](http://www.acenet.edu/bookstore/pdf/2002_crucial_choices.pdf)
- Kinzie, J., Gonyea, R., Kuh, G. D., Umbach, P., Blaich, C., & Korkmaz, A. (2007). *The relationship between gender and student engagement in college*. Paper presented at the 32nd Annual Conference of the Association for the Study of Higher Education, Louisville, KY.
- KIPP. (n.d.). Character strengths and learning behaviour. Retrieved from <http://www.kipp.org/our-approach/strengths-and-behaviours>.
- Kleijn WC, van der Ploeg HM, Topman RM. (1994). Cognition, study habits, test anxiety, and academic performance. *Psychol Rep* 75:1219–1226.
- Koenna Data Atlas. (2015). Thailand. Retrieved on 18 July 2015 from <http://knoema.com/atlas/Thailand/topics/Education/Tertiary-Education/Gross-enrolment-ratio>.

- Kovach, K., & Wilgosh, L. (1999). Learning and study strategies, and performance anxiety in postsecondary students with learning disabilities: A preliminary study. *Developmental Disabilities Bulletin*, 27, 47-57.
- Kururkar, R.A., Cate, Th.J. Ten, Vos, C.M.P., Westers, P. & Croiset. (2012). How motivation affects academic performance: A structural equation modeling analysis. *Advances in Health Science Education*. Retrieved on 2 November 2015: [http://sdtheory.s3.amazonaws.com/SDT/documents/2012\\_KusurkarEtAl\\_AdvInHealthSciEdu.pdf](http://sdtheory.s3.amazonaws.com/SDT/documents/2012_KusurkarEtAl_AdvInHealthSciEdu.pdf)
- Laophet, Y. (2001). Roles of fathers, roles of mothers and Emotion Quotient of adolescent students in Bangkok. M.Ed. Thesis in Developmental Psychology. Bangkok: Si Nakkharinrawirot University.
- Lazarus, R.S. (2006). Emotions and interpersonal relationships: Toward a person-centered conceptualization of emotions and coping. *Journal of Personality*, 1, 9-6.
- Learning Domain. (n.d.) Education and status attainment. Retrieved on 15 July from [www.learningdomain.com/chap.4.educ.occup.doc](http://www.learningdomain.com/chap.4.educ.occup.doc).
- Leary, M. R., & Allen, A. B. (2011). Self-presentational persona: simultaneous management of multiple impressions. *Journal of personality and social psychology*, 101(5), 1033-1049.
- LeCroy, C. W. (2002). Child therapy and social skills. In A. R. Roberts & G. J. Greene (Eds.), *Social workers' desk reference* (pp. 406-412). New York: Oxford University Press.
- Lee, Hye-Jung, Jihyun Lee, Kara A. Makara, Barry J. Fishman, and Young-Il Hong (2015) *Does Higher Education Foster Critical and Creative Learners? An Exploration of Two Universities in South Korea and the USA*. *Higher Education Research & Development* 34(1): 131–146.
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design* (8<sup>th</sup> ed.). New Jersey: Prentice Hall.
- Leppel, J. (2002). Similarities and differences in the college persistence of men and women. *The Review of Higher Education*, 25, 533-450.
- Lerdpornkulrat, T., Loul. R., & Sujivorakul, C. (n.d.). Career aspirations and the influence of parenting styles: A review of the literature. *Selected Topics in Education and Educational Technology*. Retrieved on 15 August 2015 from <http://www.wseas.us/e-library/conferences/2010/Japan/EDU/EDU-09.pdf>.

- Lillard, D., & Gerner, J. (1999). Getting to the Ivy League: How family composition affects college choice. *Journal of Higher Education*, 70, 706-730.
- Lo, C.C., & Prohaska, A. (2010). Creating an environment conducive to active and collaborative learning: Redesigning introduction to sociology in a large research university. *Journal on Excellence in College Teaching*, 21(4).
- Lockheed, M., Fuller, B., & Nyirongo. (1989). Family effects on students' achievement in Thailand and Malawi. *Sociology of Education*, 62(4), 239-256. Available at [http://www-wds.worldbank.org/servlet/WDSContentServer/IW3P/IB/1988/07/01/000009265\\_3960927014216/Rendered/PDF/multi\\_page.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/IW3P/IB/1988/07/01/000009265_3960927014216/Rendered/PDF/multi_page.pdf).
- Loong E. T. (2012). Self-Regulated Learning and their Effects on Math Performance of Pre-University International Students in Malaysia. *Journal of Education and Vocational Research*, 3(3), 89-97.
- Loong, T. E. (2012). International Students' self-Regulated Learning And Its Relation To Mathematics Achievement In An Off-Shore Australian Program., *Academic Research International*, 4 (5).
- Lopez, N.L.& Bonenberger, J.L., & Schneider, H.G. (2001). Parental Disciplinary History Current Levels of Empathy, and Moral Reasoning In Young Adults. *North American Journal of Psychology*, 3(1), 193-204.
- Lopez, S. J., & Louis, M. C. (2009). The principles of strengths-based education. *Journal of College and Character*, 10(4).
- Lucas, S.K. (2011). *Self-presentation and underachievement among young adolescents identified as gifted*. Masters by Research thesis, Queensland, Australia: Queensland University of Technology,
- Making more of your time. (2014). California State University-San Marcos. Retrieved on 9 December from [https://www.csusm.edu/academicadvising/probation/pdf/making moreof your time.pdf](https://www.csusm.edu/academicadvising/probation/pdf/making%20moreof%20your%20time.pdf).
- Margalit, M., & Eysenck, S. (1990). Prediction of coherence in adolescence: Gender differences in social skills, personality, and family climate. *Journal of Research in Personality*, 24(4), 510-521.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological review*, 98(2), 224–253.

- Marr, K., & Ezeife, A.N. (2008). Empathy, authoritarianism, and recalled parental attitudes in child and youth workers. *Relational Child and Youth Care Practice, 21*(1), 26-37.
- Marrs, H., & Sigler, E.A. (2012). Male academic performance in college: The possible role of study strategies. *Psychology of men and masculinity, 13* (2), 227-241.
- Marzuki, A., Mustaffa, S., Saad, M., Muda Suhaini, Abdullah Suhanim, Che Din B. Wan. (2006). Emotional intelligence and demographic differences among students in public universities. *Research Journal in Organizational Psychology and Educational Studies, 1*(2), 2012, 93-99.
- Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist, 53*, 205-230.
- Matsumoto, D., & Ekman, P. (1988). *Japanese and Caucasian facial expressions of emotion (JACFEE)* [Slides]. San Francisco, CA: Intercultural and Emotion Research Laboratory, Department of Psychology, San Francisco State University.
- Matsumoto, D., LeRoux, J., Wilson-Cohn, C., Raroque, J., Kooken, K., Ekman, P., & Goh, A. (2000). A new test to measure emotion recognition ability: Matsumoto and Ekman's Japanese and Caucasian Brief Affect Recognition Test (JACBART). *Journal of Nonverbal Behaviour, 24*(3), 179-209.
- Matthews, D. (2015). East Asian has toxic education culture. Retrieved on 15 September from <https://www.timeshighereducation.co.uk/news/east-asia-has-%E2%80%99toxic-academic-culture%E2%80%99>.
- Matthews, D.W. (2014). Long-term effects of divorce on children. Retrieved from <http://www.ces.ncsu.edu/depts/fcs/pdfs/fcs482.pdf>. From the North Carolina Cooperative Extension Service.
- Matthews, G., Zeidner, M., & Roberts, R. D. (2004). Emotional intelligence: Science and myth: The MIT Press.
- Mayer, J. D. (2001). A field guide to emotional intelligence. *Emotional intelligence in everyday life, 3-24*.
- Mayer, J. D., & Salovey, P. (1990). Emotional intelligence. *Imagination, cognition and personality, 9*(3), 184-211.
- Mayer, J. D., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence, 17*(4), 433-442.

- Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27(4), 267-298.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2000). Emotional intelligence as zeitgeist, as personality, and as a mental ability. In R. Bar-On & J. D. Parker (Eds.), *The handbook of emotional intelligence* (pp. 92-117). San Francisco, CA: Jossey-Bass.
- Mangal, S. K., & Mangal, S. (2013). *Research methodology in behavioural sciences*. PHI Learning Pvt. Ltd.
- Mayer, J.D., & Salovey P. (1997). What is emotional intelligence? In P. Salovey & D.J.Sluyter (Eds.). *Emotional development and emotional intelligence: Educational implications*. New York, NY: Basic Books.
- Mayer, J.D., Salovey, P. & Caruso, D.R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, 15(3), 197-215.
- Mayhew, M. J., Vanderlinden, K., & Kim, E. K. (2010). A multi-level assessment of the impact of orientation programs on student learning. *Research in Higher Education*, 51, 320–345.
- McClelland, D. C. (1973). Testing for competence rather than for "intelligence.". *American psychologist*, 28(1), 1.
- McDaniel, M. A., Howard, D. C., & Einstein, G. O. (2009). The Read-Recite-Review Study Strategy Effective and Portable. *Psychological Science*, 20(4), 516-522.
- McGrath, M., & Braunstein, A. (1997). The prediction of freshmen attrition: An examination of the importance of certain demographic, academic, financial, and social factors. *College Student Journal*, 31(3), 396-408.
- McIntyre, H. H. (2010). Gender differences in the nature and linkage of higher-order personality factors to trait and ability emotional intelligence. *Personality and Individual Differences*, 48, 617-622.
- Meijs, N., Cillessen, A. H., Scholte, R. H., Segers, E., & Spijkerman, R. (2010). Social intelligence and academic achievement as predictors of adolescent popularity. *Journal of Youth and Adolescence*, 39(1), 62-72.
- Momentous Institute. (2014). Blog. Located at <http://www.salesmanshipclub.org/blog>.

- Muis, K. R., Winne, P. H., & Jamieson-Noel, D. (2007). Using a multitrait-multimethod analysis to examine conceptual similarities of three self-regulated learning inventories. *British Journal of Educational Psychology*, 77(1), 177-195.
- Mullan, B., Wong, C., Kothe, E., O'Moore, K., Pickles, K., & Sainsbury, K. (2014). An examination of the demographic factors of adolescent breakfast consumption, content, and context. *BMC Public Health*, 14(1), 1.
- Nagra, V. (2014). Social Intelligence and Adjustment of Secondary School Students. *Paripex-Indian Journal of Research*, 3(4), 86-87. Retrieved on 11 January 2015 from [http://theglobaljournals.com/paripex/file.php?val=April\\_2014\\_1397566132\\_01068\\_26.pdf](http://theglobaljournals.com/paripex/file.php?val=April_2014_1397566132_01068_26.pdf).
- Nasir, M., & Masrur, R. (2010). An exploration of emotional intelligence of the students of IIUI in relation to gender, age and academic achievement. *Bulletin of education and research*, 32(1), 37-51.
- National Collaborating Centre for Mental Health. (2010). *Antisocial personality disorder: Treatment, management, and prevention*. London: the British Psychological Society.
- National Education Act, (1999). Retrieved on 1 April (2012) from: <http://www.moe.go.th/main2/plan/p-r-b42-01.htm>
- Nelson, R. (2003). A study on the behaviour and productive efficiency of college students and the determinants of GPA. *Issues in Political Economy*, 12. Retrieved on 22 September 2015 from <http://org.elon.edu/ipe/nelson%20FINAL.pdf>
- Nist, S. L., & Holschuh, J. (2000). *Active Learning: Getting Serious about College Success*: Allyn and Bacon.
- Nist, S. L., & Simpson, M. L. (1994). Why strategies fail: Students' and researchers' perceptions. In C. K. Kinzer, D. J. Leu, J. A. Peter, L. M. Ayre, & D. Frooman (Eds.), *Multidimensional aspects of literacy research, theory, and practice: Forty-third yearbook of The National Reading Conference* (pp. 287-295). Chicago, IL: National Reading Conference, Inc.
- Noel-Levitz. (2007). *National freshman attitudes report*. Iowa City, IA: Noel-Levitz.
- Nowicki Jr, S., & Duke, M. P. (1994). Individual differences in the nonverbal communication of affect: The Diagnostic Analysis of Nonverbal Accuracy Scale. *Journal of Nonverbal Behaviour*, 18(1), 9-35.

- Nunnally, J.C. (1978). *Psychometric Theory* (2<sup>nd</sup> ed.). New York: McGraw Hill
- NUS Ranked First in Asia in the Latest QS World University Rankings (2013). Retrieved on 15 July 2015 from <http://news.nus.edu.sg/press-releases/6776-nus-ranked-first-in-asia-in-the-latest-qs-world-university-rankings>
- O'Sullivan, M. (1982). Measuring the ability to recognize facial expressions of emotion. In P. Ekman & K. R. Scherer (Eds.), *Emotion in the human face* (pp. 281-317). Cambridge: Cambridge University Press.
- Obradovic, J., van Dulmen, M. H. M., Yates, T. M., Carlson, E. A., & Egeland, B. (2006). Developmental assessment of competence from early childhood to middle adolescence. *Journal of Adolescence*, 29, 857-889.
- OECD. (2014). Country Report. Indonesia. Retrieved on 9 December 2014 from <http://www.oecd.org/indonesia/>.
- Olaniran, B.A., & Williams, I.M. (2012). Social information processing theory (SIPT): a Cultural perspective for international online communication environments. DOI: 10.4018/978-1-60960-833-0.ch004.
- Olson, J. L., Platt, J. C., & Dieker, L. A. (2008). *Teaching Children and Adolescents with Special Needs*. (5<sup>th</sup> ed.) Columbus, Ohio: Prentice Hall.
- Ong, E. Y., Ang, R. P., Ho, J. C., Lim, J. C., Goh, D. H., Lee, C. S., & Chua, A. Y. (2011). Narcissism, extraversion and adolescents' self-presentation on Facebook. *Personality and individual differences*, 50(2), 180-185.
- Ormrod, J.E. (2008). *Educational philosophy: Developing learners*. New York: Pearson.
- Owen, T.R. (2003). Retention implications of a relationship between age GPA. *College Student Journal*, 37(2), 181-189.
- Oyerinde, O. O. (2001). The Impacts of Family Structure, Parental Practices and Family Size on Children's Academic Performance. *Nigerian School Health Journal*, 13(2), 160-168.
- Pace, L., & Edmunson, J. (2014). *Improving student outcomes through collective output. A guide for federal policymakers*. Cincinnati, OH: KnowledgeWorks. Retrieved on 27 October 2015 from <http://www.knowledgeworks.org/sites/default/files/Improving-Student-Outcomes-Through-Collective-Impact.pdf>.
- Pajares, F. (2002). Overview of social cognitive theory and of self-efficacy. Retrieved 17 July 2015 from <http://www.uky.edu/~eushe2/Pajares/eff.html>.



- Pakaslahti, L., Karjalainen, A., & Keltikangas-Jaervinen, L. (2002). Relationships between adolescent prosocial problem-solving strategies, prosocial behaviour, and social acceptance. *International Journal of Behavioural Development*, 26, 137-144.
- Palmer, B. R., Manocha, R., Gignac, G., & Stough, C. (2003). Examining the factor structure of the Bar-On Emotional Quotient Inventory with an Australian general population sample. *Personality and Individual Differences*, 35(5), 1191-1210.
- Panjiang P. (2013). The Factors Affecting Emotional Quotient of Students in Higher Education Institutions in Songkhla Province. Paper presented at the 4th meeting Hat Academic research must begin to develop Thailand 10 May next.2556 447-458.
- Parker, J. D. A., Bond, B. J., Wood, L. M., Eastabrook, J., & Taylor, R. (2006). Emotional intelligence at Sir Sandford Fleming College: Impact on academic success. (Research Report No. 27). Peterborough, ON: Trent University, Emotion and Health Research Laboratory.
- Parker, J. D., Summerfeldt, L. J., Hogan, M. J., & Majeski, S. A. (2004). Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and individual differences*, 36(1), 163-172.
- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.
- Paul-Oudouard, R. (2006). Emotional intelligence, social problem solving, and demographics as predictors of well-being in women with multiple roles. *Dissertation Abstracts International*, 66 (07),3956B. (UMI No. 3181638).
- Payakkakom, A. (2008). Psychosocial factors related to academic persistence decisions of Thai college freshmen. Unpublished Ph.D. dissertation, Arizona State University, Tempe, Arizona. Retrieved on 17 July 2015 from [https://books.google.com/books?id=eV3o3LxjyFAC&printsec=frontcover&source=gbs\\_vpt\\_buy#v=onepage&q&f=false](https://books.google.com/books?id=eV3o3LxjyFAC&printsec=frontcover&source=gbs_vpt_buy#v=onepage&q&f=false).
- Petchprasert, A., (2013) The Influence of Parents' Backgrounds, Beliefs about English Learning, and a Dialogic Reading Program on Thai Kindergarteners' English Lexical Development , Phayao. School of Liberal Arts, University of Phayao. *English Language Teaching*, 7(2014).

- Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, 15(6), 425-448.
- Petrides, K. V., Furnham, A., & Martin, G. N. (2004). Estimates of emotional and psychometric intelligence: Evidence for gender-based stereotypes. *The Journal of social psychology*, 144(2), 149-162.
- Phatthanaphong, N. (2007). *Development of a test of emotional intelligence for students in the southern Thailand school*, Master's thesis, Thaksin University, Songkhla, Thailand.
- Philipps, A. (2010). Fitting a healthy lifestyle with socializing and studying. *The Independent*. Retrieved on 27 October 2015 from <http://www.independent.co.uk/student/student-life/health/fitting-a-healthy-lifestyle-in-with-socialising-and-studying-5846963.html>.
- Pintrich, P. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, 95(4), 667-686.
- Pintrich, P.R., & De Groot, E.V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82(1), 33-40.
- Proctor, B. E., Prevatt, F. F., Adams, K. S., Reaser, A., & Petscher, Y. (2006). Study skills profiles of normal-achieving and academically-struggling college students. *Journal of College Student Development*, 47(1), 37-51.
- Punch, K (1998) Introduction to social Research: Quantitative and Qualitative Approaches , London, Sage
- Puspitasari, K. (2012). *The effects of learning strategy intervention and study time management intervention on students' self-regulated learning, achievement, and course completion in a distance education learning environment*. Ph.D. Dissertation. Florida State University, Tallahassee, Florida.
- Ramdass, D., & Zimmerman, B. (2011). Developing self-regulation skills: The important role of homework. *Journal of Advanced Academics*, 22(2), 194-218.
- Remali, A.M., Ghazali, M.A., Kamaruddin, M.K., & Kee, T.Y. (2013). Understanding academic performance based on demographic factors, motivation factors and learning styles. *International Journal of Asian Social Science*, 3(9), 1938-1951.

- Ribera, T., Ribera, A.K., BrickaLorenz, A. (2012). Faculty Fostering Collaborative Learning and Personal and Social Responsibility. Indiana Center for Postsecondary Research. Retrieved on 9 December 2014 from [http://cpr.iub.edu/uploads/AIR%202012%20%28CL\\_PSR%29.pdf](http://cpr.iub.edu/uploads/AIR%202012%20%28CL_PSR%29.pdf). Paper presented at Paper presented at the Association for Institutional Research Annual Forum in New Orleans, LA, June 2012.
- Richter, D., & Kunzmann, U. (n.d.). Age related gains in empathy: Subjective and behavioural evidence. Retrieved from <http://www.uni-leipzig.de/~epsycho/img/Richter%20&%20Kunzmann,%20ICP%2008.pdf>.
- Rochat, P. (2003). Five levels of self-awareness as they unfold early in life. *Consciousness and cognition*, 12(4), 717-731.
- Romruen, W. (2006). *Relationship between submissive behaviour and learning behaviour of higher secondary school students at Triam Udonsuksa Phatthanakan, Bang Yai, Nonthaburi*. MSc. Thesis in Community Psychology. Bangkok: Kasetsat University.
- Rosenberg, M.S, & Westling, D.L., & McLeskky, J. (2010). *The impact of culture on education*. London: Pearson Allyn Bacon Prentice Hall
- Roy, B., Sinha, R. & Suman, S. (2013). Emotional intelligence and academic achievement motivation among adolescents: a relationship study. *International Refereed Research Journal*, 4(2), 126-130.
- Runckel & Associates. (2008). Education in Thailand. Retrieved on 18 July 2015 from [http://www.business-in-asia.com/thailand/education\\_in\\_thailand.html](http://www.business-in-asia.com/thailand/education_in_thailand.html).
- Saat, N. Z. M., Fauzi, N. F., Ch'ng, S. F., Chua, Y. H., Kho, J. H., Kimnie, T., .& Wong, L. J. (2014). Status of Emotional Intelligence (EI) Level of Biomedical Science Programme in Kuala Lumpur.
- Saat, N. Z. M., Fauzi, N. F., Ch'ng, S. F., Chua, Y. H., Kho, J. H., Kimnie, T., ... & Omar, S. (2014). Status of emotional intelligence (EI) level of biomedical science programme in Kuala Lumpur. *Research Journal of Applied Sciences, Engineering and Technology*, 7(20), 4220-4225.
- Saengsi, C. (1995). *Attitude towards working as a secretary of the Taskforce to Support the Execution of Rural Development at Sub-district Level of Loei Province Development*. Master of Development Administration Thesis. National Institute of Development Administration.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, 9(3), 185-211.

- Salovey, P., Brackett, M. A., & Mayer, J. D. (2004). Emotional intelligence: Key readings on the Mayer and Salovey model: NPR Inc.
- Sarvamangala, D.R. (2012) A study of socio-demographic factors on socio-intelligence among secondary school teachers. *Journal of Scientific Research*, 1(5). Retrieved on 2 May 2015 from <http://theglobaljournals.com/ijsr/articles.php?val=MTk0&b1=65&k=17>.
- Sattler, D. N. (1998). The need principle in social dilemmas. *Journal of Social Behaviour and Personality*, 13, 667-678.
- Sax, L. (2008). Her college experience is not his. *The Chronicle of Higher Education*, 55(5), A32–A33.
- Saxena, S., & Jain, R. K. (2013). Social intelligence of undergraduate students in relation to their gender and subject stream. *IOSR Journal of Research & Method in education (IOSR-JRME)*, 1, 01-04.
- Schiefele, U., Krapp, A., & Winteler, A. (1992). Interest as a predictor of academic achievement: A meta-analysis of research. In K. A. Renninger, S. Hidi, & A. Krapp (eds.), *The role of interest in learning and development* (pp. 183-212). Hillsdale, NJ: Erlbaum.
- Schommer-Aikins, M., & Easter, M. (2008). Epistemological beliefs' contributions to study strategies of Asian Americans and European Americans. *Journal of educational psychology*, 100(4), 920-929.
- Schumacker, R. E., Bembry, K. L., & Sayler, M. (1995). Identifying at-risk gifted students in an early college entrance program. *Roeper Review*. 18, 126-9.
- Sekaran, U. & Bougie, R. (2010). *Research methods for business: A skill building approach (5<sup>th</sup> ed.)*. New York: John Wiley & Sons.
- Simon, H. A. (1979). Information processing models of cognition. *Annual review of psychology*, 30(1), 363-396.
- Sirisamphan, O., & Mahakhan, P. (2011). A Study of Learning Behaviour of Students in Faculty of Education, Silpakorn University. *Veridian E-Journal, Silpakorn University*, 4, September- December 2011. Retrieved from: <http://www.ejournal.su.ac.th/upload/198.pdf>.
- Sisurak, P. (1986). *Comprehending textbooks well: a piece of cake for effective learning* (handouts). Bangkok: Thammasat University.

- SixSeconds. (n.d.). A case for emotional intelligence in our schools. Retrieved from [http://www.6seconds.org/pdf/case\\_for\\_EQ\\_school.pdf](http://www.6seconds.org/pdf/case_for_EQ_school.pdf).
- Sizoo, S., Malhotra, N., & Bearson, J. (2003). A gender-based comparison of the learning strategies of adult business students. *College Student Journal*, 37(1), 103-110.
- Sloane, C. (2014). College students: These soft skills lead to academic success. US News and World Report: Education. Retrieved on 9 December from <http://www.usnews.com/education/blogs/college-admissions-playbook/2014/11/17/college-students-these-soft-skills-lead-to-academic-success>.
- Smith, S. N., & Miller, R. J. (2005). Learning approaches: Examination type, discipline of study, and gender. *Educational Psychology*, 25, 43-53.
- Somers, P., Woodhouse, S., & Cofer, J. (2004). Pushing the boulder uphill: The persistence of first-generation college students. *NASPA Journal*, 41(3), 418-435.
- Songkhla Rajabhat University Academic Report (2011). Songkhla-Thailand. Retrieved from: [www.Skru.ac.th/index1.php](http://www.Skru.ac.th/index1.php)
- Sorrentino, R.M., & Higgins, E.T. (1996). *Handbook of motivation and cognition: Foundations of social behaviour, Volume 3*. New York, NY: Guilford Press.
- State University.com. (n.d.) Thailand Higher Education. Retrieved on 18 July 2015 from <http://education.stateuniversity.com/pages/1529/Thailand-HIGHER-EDUCATION.html>.
- Strayhorn, T. L. (2014). What role does grit play in the academic success of black male collegians at predominantly White institutions?. *Journal of African American Studies*, 18(1), 1-10.
- Suntornpithug, N. (1986). The development of learning strategies for postliteracy and continuing education of neo-literates in the perspective of lifelong long education in Thailand.
- Suwanpakdee, S. (1998). *Factors related to adjustment of nursing students at southern colleges of nursing, ministry of public health*, master's thesis, Srinakharinwirot University, Bangkok, Thailand.
- Svetlana, H. (2007) *Emotional intelligence and academic achievement in higher education*. Malibu, California: Pepperdine University.

- Swecker, H. K., Fifolt, M., & Searby, L. (2013). Academic advising and first-generation college students: A quantitative study on student retention. *NACADA Journal*, 33(1), 46-53.
- Tanakinci, O & Yildirim, O. (2010). The Impact of Social Intelligence of Academic Achievement of Students Studying Media. Retrieved on 11 January from <http://www.sgem.org/sgemlib/slib.php?article835>.
- Tella, A. (2007). The impact of motivation on student's academic achievement and learning outcomes in mathematics among secondary school students in Nigeria. *Eurasia Journal of Mathematics, Science & Technology Education*, 3(2), 149-156.
- Ten Dam, G., & Volman, M. (2007). Educating for adulthood or for citizenship: Social competence as an educational goal. *European Journal of Education*, 42(2), 281-298.
- Terman, L. M. (1916). *The measurement of intelligence*. Boston: Houghton Mifflin.
- Terman, L. M., & Merrill, M. A. (1960). *Stanford-Binet intelligence scale*. Boston: Houghton Mifflin.
- Terry, D.J., & Hogg, M.A. (2000). *Social context: The role of norms and group membership*. Mahwah, NJ: Lawrence Erlbaum.
- Terry, K.P., & Doolittle, P.E. (2008). Fostering self-efficacy through time management in an online learning environment. *Journal of Interactive Online Learning*, 7(3), 195-207.
- ThaiPBS. (2014). Divorce rate rising on April 14 family day. Retrieved from <http://englishnews.thaipbs.or.th/divorce-rate-rising-april-14-family-day>.
- Thakur, R., Sharma, S., & Pathania, R. (2013). Social Intelligence of Adolescents: A Study of Himachal Pradesh.
- Thorndike, E. I. (1920). Intelligence and its uses. *Harper's Magazine*, 140, 227-235.
- Thorndike, R. L., & Stein, S. (1937). An evaluation of the attempts to measure social intelligence. *Psychological Bulletin*, 34(5), 275-285.
- Thorndike, R. L., & Stein, S. (1937). An evaluation of the attempts to measure social intelligence. *Psychological Bulletin*, 34(5), 275-285.

- Ting, S. R., & Robinson, T. L. (1998). First-year academic success: A prediction combining cognitive and psychosocial variables for Caucasian and African American students. *Journal of College Student Development, 39*, 599-610.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45* (1), 89-125.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: The University of Chicago Press.
- Tongsuebsai, K. (2009). *Development of a social intelligence scale for undergraduate students*, master's thesis, Chulalongkorn University, Bangkok, Thailand.
- Tran, T.V. (1988). Sex differences in English language acculturation and learning strategies among Vietnamese adults aged 40 and over in the United States. *Sex Roles, 19*(11/12), 747-758.
- Tross, S. A., Harper, J. P., Osher, L. W., & Kneidinger, L. M. (2000). Not just the usual cast of characteristics: Using personality to predict college performance and retention. *Journal of College Student Development, 41*, 323-334.
- Turner, J. E., & Husman, J. (2008). Emotional and cognitive self-regulation following academic shame. *Journal of Advanced Academics, 20*(1), 138-173.
- U.S. Library of Congress. (2014). Indonesia: Country Study. Retrieved on 9 December 2014 from <http://countrystudies.us/indonesia/>.
- University of Oxford. (2014). Current & prospective students: Information for all students, study skills. Retrieved on 9 December 2014 from <https://www.conted.ox.ac.uk/students/currentstudents/studyskills.php>.
- Utzman, R. R., Riddle, D. L., Jewell, D. V. (2007). Use of demographic and quantitative admissions data to predict academic difficulty among professional physical therapy students. *Physical Therapy, 87*, 1164-1180.
- Vallerand, R. J., Fortier, M. S., & Guay, F. (1997). Self-determination and persistence in a real-life setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology, 72*(5), 1161-1176.
- Vanderbilt University. (2015). *Teaching first-year students*. Retrieved on 2 November 2015 from <https://cft.vanderbilt.edu/guides-sub-pages/firstyears/>.

- Vanthournot, G., Gijbels, D., Coertines, L., Donche, V., & Van Petegem, P. (2012). Students' persistence and academic success in a first-year professional bachelor program: The influence of students' learning strategies and academic motivation. *Education Research International*.  
<http://dx.doi.org/10.1155/2012/152747>.
- Vellymalay, S.K.N. (2012). Parental involvement at home: Analyzing the influence of parents' socioeconomic status. *Studies in Sociology of Science*, 3(1), 1-6.
- Venesiz, A., & Jaeger, A. (2013). Transitions from high school to college. *The Future of Children*, 23(1), 116-136.
- Walberg, H. J., & Uguroglu, M. (1980). Motivation and educational productivity: Theories, results, and implications. In L. J. Fyans (Ed.), *Achievement motivation. Recent trends in theory and research* (pp. 114-134). New York, NY: Plenum Press. [http://dx.doi.org/10.1007/978-1-4757-8997-3\\_6](http://dx.doi.org/10.1007/978-1-4757-8997-3_6).
- Wan Abdul Rahman, W. A. & Castelli, P.A. (2013). The impact of empathy on leadership effectiveness among business leaders in the United States and Malaysia. *International Journal of Economics Business and Management Studies*, 2(3), 83-97.
- Warburton, E. C., Bugarin, R., & Nuñez, A. M. (2001). Bridging the Gap: Academic Preparation and Postsecondary Success of First-Generation Students. Statistical Analysis Report. Postsecondary Education Descriptive Analysis Reports. U.S. Department of Education. National Center for Education Statistics.
- Warnes, E. D., Sheridan, S. M., Geske, J., & Warnes, W. A. (2005). A contextual approach to the assessment of social skills: Identifying meaningful behaviours for social competence. *Psychology in the Schools*, 42, 173-187.
- Watthanawanit, P. (1994). *A piece of cake for effective learning*. Bangkok: Charoenphon Printing House
- Wechsler, D. (1958). The measurement and appraisal of adult intelligence. *Academic Medicine*, 33(9), 706.
- Wechsler, D. (1940). Non intellectual factors in general intelligence. *Psychological Bulletin*, 37, 444-445.
- Weinstein, C. E. (1994). Strategic learning/strategic teaching: Flip sides of a coin. In P. R. Pintrich, D. R. Brown, & C. E. Weinstein (Eds.), *Student motivation, cognition, and learning: Essays in honor of Wilbert J. McKeachie* (pp. 257-273). Hillsdale, NJ: Lawrence Erlbaum.



- Weinstein, C. E., & MacDonald, J. D. (1986). Why does a school psychologist need to know about learning strategies? *Journal of School Psychology, 24*(3), 257-265.
- Weinstein, C. E., & Palmer, D. R. (2002). *LASSI user's manual for those administering the Learning and Study Strategies Inventory, Second Edition*. Clearwater, FL: H & H Publishing Company, Inc. Retrieved from: [http://www.hhpublishing.com/\\_assessments/lassi/lassi\\_users\\_manual.pdf](http://www.hhpublishing.com/_assessments/lassi/lassi_users_manual.pdf).
- Weinstein, C. E., Husman, J., & Dierking, D. R. (2000). Self-regulation interventions with a focus on learning strategies. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *63 Handbook of self-regulation* (pp. 727-747). San Diego, CA: Academic Press.
- Weinstein, C. E., Palmer, D. R., & Schulte, A. C. (1987). *LASSI: Learning and Study Strategies Inventory*. Clearwater, FL: H & H Publishing.
- Weinstein, C. E., Zimmermann, S. A., & Palmer, D. R. (1988). Assessing learning strategies: The design and development of the LASSI. In C. E. Weinstein, E. T. Goetz, & P. A. Alexander (Eds.), *Learning and study strategies: Issues in assessment, instruction, and evaluation* (pp. 25-40). San Diego, CA: Academic Press, Inc.
- Weinstein, R.S. (2011). *Toward a comprehensive support structure for early college secondary students: Final report to the Woodrow Wilson national fellowship foundation..* Berkeley, CA: University of California, Berkeley.
- Weller, C. R., & Brandhorst, T. (1991). ERIC Clearinghouse Publications, 1990. An Annotated Bibliography of Information Analysis Products and Other Major Publications of ERIC Clearinghouses, January-December 1990.
- WENR. (2010). Education in Thailand. Retrieved on 16 July from <http://wenr.wes.org/2014/03/education-in-thailand/>.
- Wigfield, A., & Eccles, J. S. (1992). The development of achievement task values: A theoretical analysis. *Developmental Review, 12*, 265–310.
- Williamson, L. (2010). *Parent guide to first year college student*. New Concord, Ohio. Muskingum University.
- Wilmot, L. J. (2015). *Exploring the role of the lecturer in developing self-regulated learning skills in students* (Doctoral dissertation).

- Wingate, U. (2006). Doing away with 'study skills.' *Teaching in Higher Education*, 11(4), 457-469. DOI: 10.1080/13562510600874268. Published online 24 January 2007.
- Withall, J. (1949). The development of a technique for the measurement of social emotional climate in classrooms. *Journal of Experimental Education*, 17, 347-361.
- World Economic Forum (WEF). (2011). Retrieved on 1 April (2012) from [http://www3.weforum.org/docs/WEF\\_GlobalCompetitivenessReport\\_2010-11.pdf](http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf).
- Wray-Lake, L., & Syvertsen, A. K. (2011). The developmental roots of social responsibility in childhood and adolescence. In C. A. Flanagan & B. D. Christens (Eds.), *Youth civic development: Work at the cutting edge. New Directions for Child and Adolescent Development*, 134, 11–25.
- Wray-Lake, L., & Syvertsen, A. K. (2011). The developmental roots of social responsibility in childhood and adolescence. *New directions for child and adolescent development*, 2011(134), 11-25.
- Wursten, H., & Jacobs, C. (n.d.). The impact of culture on education. Retrieved on 15 September 2015 from [http://geert-hofstede.com/tl\\_files/images/site/social/Culture%20and%20education.pdf](http://geert-hofstede.com/tl_files/images/site/social/Culture%20and%20education.pdf)
- Xie, Q., & Zhang, L. (2014). Demographic factors, personality, and ability as predictors of learning approaches. Retrieved on 24 May 2015 from [http://www.academia.edu/10144407/Demographic\\_factors\\_personality\\_and\\_ability\\_as\\_predictors\\_of\\_learning\\_approaches](http://www.academia.edu/10144407/Demographic_factors_personality_and_ability_as_predictors_of_learning_approaches).
- Yamane, T (1973). "Statistics: an introductory analysis." New York: Harper & Row.
- Ye, Y., & Jang, Fuxiu. (2014). A comparative study on the differences of students of academic achievement between more and less parental involvement. In Bangkok Christian International school. Retrieved on 15 August from [http://www.journal.au.edu/scholar/2014/vol6no1/scholarv6n1\\_article13.pdf](http://www.journal.au.edu/scholar/2014/vol6no1/scholarv6n1_article13.pdf)
- Yip, M. C., & Chung, O. L. (2002). Relation of study strategies to the academic performance of Hong Kong University students. *Psychological Reports*, 90(1), 338-340.
- Yothawisothi, S. (2000). EQ and success in life. *E-journal of Nursing Studies, King Prajadhipok Chantaburi*, 11 (1): 38-42. Retrieved from [http://www.natres.psu.ac.th/Journal/EQ\\_Successfull/index.htm](http://www.natres.psu.ac.th/Journal/EQ_Successfull/index.htm).

Youth Network for Thai Education. (2011). Thai education must be renovate. Retrieved on 1 April (2012) from [http://www.facebook.com/note.php?note\\_id=196849580351467](http://www.facebook.com/note.php?note_id=196849580351467).

Zakarevicius, P., & Zuperka, A. (2010). Expression of emotional intelligence in development of students' entrepreneurship. *Economics and management*. ISSN 1822-6515.

Zeidner, M. (1990). Does test anxiety bias scholastic aptitude test performance by gender and sociocultural group? *Journal of Personality Assessment*, 55, 145-160.

Zhu, Y., & Leung, F.K.S. (2011). Motivation and achievement: Is there an East Asian model. *International Journal of Science and Mathematics Education*, 9(5), 1189-1212.

Zumbrunn, S., Tadlock, J., & Roberts, E.D. (2011). *Encouraging self-regulated learning in the classroom: A review of the literature*. Metropolitan Educational Research Consortium. Retrieved on 9 December 2014 from [http://www.selfregulation.ca/download/pdf\\_documents/Self%20Regulated%20Learning.pdf](http://www.selfregulation.ca/download/pdf_documents/Self%20Regulated%20Learning.pdf).





**APPENDIX**

**UUM**

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Universiti Utara Malaysia



**APPENDIX 1**  
**THE QUESTIONNAIRE**

**UUM**  

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**Universiti Utara Malaysia**



**Universiti Utara Malaysia**  
**College of Arts and Science**  
**School of Education and Modern Language**

This questionnaire is part of the study on Emotional intelligence, social intelligence and students' strategic learning behavior. This study is undertaken to fulfill the requirement of the academic program leading to a Ph.D. the College of Arts and Science, University Utara Malaysia, By taking thirty minutes of your valuable time, you are providing information that is pertinent to the study. The data collected will be kept confidential and will not lead to any negative results or eventual damages. The researcher would like to sincerely thank all who participate in responding to this questionnaire. Your answers are very important to the accuracy of the study.

**Thank You for Your Kind Cooperation.**

**Sincerely Yours,**

**Mali Praditsang**

This questionnaire consists of 11 pages, and is divided into 4 parts:

- Part 1 Demographic Factor
- Part 2 Emotional Intelligence
- Part 3 Social Intelligence
- Part 4 Strategic Learning Behavior

**PART 1**  
**PERSONAL INFORMATION**

**Directions:** Please fill in the blanks, or tick (/) in front of your answers.

**Please respond to every item.**

1. Gender:  male  female
2. Age ..... years
3. Your GPA in the first semester .....
4. Financial support.  
 parents  Education Loan Fund  other (please specify).....
5. Student's status in your family  
 living with parents  living with father  living with mother  
 living with relatives  living in a dorm  other (please specify).....
6. Parents' marital status  
 living together  separate  
 divorced  father deceased  mother deceased
7. Father's occupation  
 government servant  state enterprise employee  company's employee  
 personal business owner  agriculturist  daily employee  
 house worker  other (please specify)....
8. Mother's occupation  
 government servant  state enterprise employee  company's employee  
 personal business owner  agriculturist  daily employee  
 house worker  other (please specify)....

9. Family monthly income

- lower than 10,000 baht       10,001-20,000 baht       20,001-30,000 baht  
 30,001-40,000 baht       40,001-550,000 baht       more than 50,000 baht  
 not known

10. Father's education

- lower than primary       primary       secondary  
 lower vocational       higher vocational       junior degree  
 bachelor's degree       graduate degree

11. Mother's education

- lower than primary       primary       secondary  
 lower vocational       higher vocational       junior degree  
 bachelor's degree       graduate degree



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**PART 2**  
**EMOTIONAL INTELLIGENCE**

**Directions:** Please read each item and tick (/) in the column most corresponding to your answer.

Item	Statement	Level of Agreement				
		Most agree	Agree	Not sure	Disagree	Most disagree
	<b>1. Self – awareness</b>					
1	I know what I am thinking or how I am feeling.					
2	I know my strengths and weaknesses.					
3	I have no confidence in myself.					
4	I feel that I am worthless.					
5	I can make decision to do things by myself.					
	<b>2. Self – regulation</b>					
6	I cannot control my emotion when I am angry or furious.					
7	I can express appropriately when I feel angry.					
8	When I feel angry, I have ways to temper my anger.					
9	I cannot talk with anyone when I feel angry or displeased.					
10	I can temper my emotion and come back to the normal condition very quickly.					
11	When my work is criticized by friends, I will listen and try to improve it.					
12	When I have problems with friends, I can control my emotion so as not to respond violently.					
13	I cannot work with people I don't like.					
14	When I make mistakes in my work, I will take it as my fault and will not push the responsibility onto others.					
	<b>3. Motivation</b>					
15	When I feel discouraged in life, I will encourage myself to be strong.					
16	I am always creative in my work.					
17	If I intend to do anything, I will certainly get it done no matter how hard it is.					

Item	Statement	Level of Agreement				
		Most agree	Agree	Not sure	Disagree	Most disagree
18	I never give up easily when encountering obstacles.					
19	I often choose unwanted things to modify and make into something useful using my own imagination.					
20	I set up my goals and develop in myself the ability to be as expressive as my friends.					
21	I help friends do the assigned work at the best of my ability.					
	<b>4. Empathy</b>	Most agree	Agree	Not sure	Disagree	Most disagree
22	I try to understand emotions and feelings of people around me.					
23	I can perceive emotions and feelings of people around me very well.					
24	When friends are sorry or disappointed, I always stand by them to console and support them.					
25	I am not interested in how people around me feel.					
26	I am interested and attentive to the person I talk to.					
27	The feeling of people around me is not important.					
28	When friends are worried and stressed because of low marks they received from the exam, I comfort them and ask them to review lessons together with me.					
29	I help explain the lessons to friends who are absent from class.					
30	I help friends as much as I can.					
	<b>5. Social Skill</b>	Most agree	Agree	Not sure	Disagree	Most disagree
31	I can communicate and negotiate with people very well.					
32	I am friendly to all people around me.					
33	I am not able to persuade or convince people to cooperate in work for the public.					
34	I can talk friends in the same group into cooperating in work.					
35	I am trusted by friends.					
36	It's hard for me to adapt myself to other people.					
37	To help orphans, I am willing to donate money so I can help those who are in a more needy position.					
38	I willingly help other people.					
39	I don't join in university activities.					
40	I talk and greet all friends in the same class.					

**PART 3**  
**SOCIAL INTELLIGENCE**

**Directions:** Please read each item and tick (/) in the column most corresponding to your answer. (Please respond to all items)

1. Social awareness						
Items	Statement	Level of Agreement				
		Most agree	Agree	Not sure	Disagree	Most disagree
	<b>1.1 Primal empathy</b>					
1	I can perceive emotions and feelings of other people from their facial expressions and their eyes.					
2	I can perceive emotions and feelings of other people from their behavior and body language.					
3	I can immediately see that friends are unhappy.					
4	I think other people's feelings are not necessary to be understood.					
5	I can perceive other persons' feeling very well.					
	<b>1.2 Attunement</b>	Most agree	Agree	Not sure	Disagree	Most disagree
6	The most important thing in conversing with people is to pay attention to every word they say.					
7	Paying attention to your conversation partner is important in friendship building.					
8	When friends boast, I feel annoyed and do not want to hear what they say.					
9	If I feel that the conversation topic is not interesting, I will change the topic immediately.					
10	I can converse interestedly with unacquainted persons.					
11	I will smile back to my conversation partner when she / he does so.					
12	I always not look in the eyes of my conversation partner.					

Items	Statement	Level of Agreement				
		Most agree	Agree	Not sure	Disagree	Most disagree
	<b>1.3 Empathic Accuracy</b>					
13	I cannot differentiate the emotions and feelings in each person.					
14	I can differentiate between the cry of joy and the cry of sorrow.					
15	The most important thing for me during a conversation is to understand the emotions and feelings of my conversation partner.					
16	I can understand the emotions and feelings hidden in people's utterances.					
17	The most difficult thing for me is to understand other people's thought.					
18	I think trying to understand other people's emotion is something useless.					
19	I refuse to help persons who burst their anger at me.					
20	I do not accept people with different viewpoints from mine.					
	<b>1.4 Social Cognition</b>	Most agree	Agree	Not sure	Disagree	Most disagree
21	I think all human beings have different foundation of life.					
22	I understand and accept the coming changes in the society.					
23	I am ready to accept the culture in leading a life of other people.					
24	Following social rules and regulations is boring.					
25	What is important for behaving properly in the society is to learn about the culture, customs and traditions of other people.					
26	Learning the way of life under different religions is not necessary in being in a society.					
27	I understand the traditions and etiquettes in socializing with others well.					
<b>2. Social Facility</b>						
	<b>2.1 Synchrony</b>	Most agree	Agree	Not sure	Disagree	Most disagree
28	I can easily introduce myself and get to know unacquainted people.					
29	I feel uneasy having to converse with those I don't know.					
30	I openly express my gladness when friends receive prizes.					

Items	Statement	Level of Agreement				
		Most agree	Agree	Not sure	Disagree	Most disagree
31	I wear a smile on my face when people greet me.					
32	I play my role properly when I have to talk to a big group of people.					
33	I am able to coordinate work well.					
	<b>2.2 Self-Presentation</b>	Most agree	Agree	Not sure	Disagree	Most disagree
34	I can adjust my facial expressions and my eyes to suit the situation I am in.					
35	I can choose appropriate ways to respond to different situations.					
36	I can talk people into paying attention to what I say.					
37	I regularly encourage and support my colleagues.					
38	I behave properly according to time and place.					
	<b>2.3 Influence</b>	Most agree	Agree	Not sure	Disagree	Most disagree
39	I can convince people to agree with me.					
40	I can talk to arbitrate conflicts between people.					
41	I can make serious atmosphere become lively.					
42	I like to compromise, not to be disagreeable to anyone.					
43	People are not interested in what I say when I express my opinion.					
44	Friends are attentive and listen through when I talk or tell them stories.					
	<b>2.4 Concern</b>	Most agree	Agree	Not sure	Disagree	Most disagree
45	I help people without hoping for any returns.					
46	I always console friends when they are sad.					
47	I usually donate money or things to help other people.					
48	I talk without watching my words when I am angry.					
49	I give priority to other people's feeling rather than my own.					
50	I always inquire about my acquaintances' being.					
51	I quickly contact friends to ask about their being when they are absent from class.					

**PART 4**  
**STRATEGIC LEARNING BEHAVIOR**

**Directions:** Please read each item and tick (/) in the column most corresponding to your answer. (Please respond to all items)

<b>1. Covert Behavior</b>						
<b>Items</b>	<b>Statement</b>	<b>Level of Agreement</b>				
		Most agree	Agree	Not sure	Disagree	Most disagree
	<b>1.1 Attitude</b>					
1	Though the content of the lesson is boring or uninteresting, I try to continue studying to the end.					
2	Though I don't like the subject, I try hard to study it so I can get a good grade.					
3	When encountering difficult lessons, I usually lose my interest or choose to study only the easy part.					
4	I don't like most of the activities in the classroom.					
5	I think the subjects taught in class are not worth studying at all.					
	<b>1.2 Motivation</b>	Most agree	Agree	Not sure	Disagree	Most disagree
6	I feel discouraged when my exam results are bad.					
7	When I cannot complete my study or my work as planned, I usually find reasons for it.					
8	I understand the content of some subjects because I did pay much attention when studying them.					
9	I set rather high standard for my study.					
	<b>1.3 Anxiety</b>	Most agree	Agree	Not sure	Disagree	Most disagree
10	I am confused and indecisive about what my learning goals are.					
11	When studying, I usually have problems understanding the lesson.					

Items	Statement	Level of Agreement				
		Most agree	Agree	Not sure	Disagree	Most disagree
12	I feel frightened when important exams are near.					
13	I cannot do the best of my ability in the exams when I am confused and worried.					
14	I am confused at details and cannot see the whole picture because I pay too much attention to details.					
<b>2. Overt Behavior</b>						
	<b>2.1 Time Management</b>	Most agree	Agree	Not sure	Disagree	Most disagree
15	I find it difficult to study according to class schedule.					
16	I can finish assigned tasks on time.					
17	I make full use of the study time each day.					
18	I have little time to prepare for the exams so I get low marks.					
19	I arrange my schedule for reviewing the lessons and strictly follow it.					
	<b>2.2 Concentration</b>	Most agree	Agree	Not sure	Disagree	Most disagree
20	I usually think of something and don't pay attention to what I am studying.					
21	Problems about love, money and family conflicts make me pay no attention to my study.					
22	I am easily distracted while studying.					
23	My mind often drifts away or I just think of something else while studying.					
	<b>2.3 Information Processing</b>	Most agree	Agree	Not sure	Disagree	Most disagree
24	I think thoroughly about the topic I learnt in terms of what I should learn from the lesson rather than just reading it without paying attention.					
25	I compare my lecture notes and friends' to make sure that my notes are correct.					

Items	Statement	Level of Agreement				
		Most agree	Agree	Not sure	Disagree	Most disagree
26	I synthesize the content I have learnt to make sense out of it.					
27	I cannot relate what I have learned to my previous experience.					
28	While studying, I check myself all the time whether I understand what the teacher is teaching.					
29	I cannot apply what I learned in my everyday life.					
30	I try to relate the theme of the content to what I am studying.					
	<b>2.4 Selecting Main Ideas</b>	Most agree	Agree	Not sure	Disagree	Most disagree
31	I can distinguish between important and unimportant information while taking notes.					
32	I use the summary technique while listening to lectures.					
33	While reading, I focus on the first and the last sentences of the paragraph.					
34	It is difficult for me to determine what the main idea that I should underline is.					
35	While reading, I usually stop reading at different points and review silently what I have read.					
	<b>2.5 Study Aids</b>	Most agree	Agree	Not sure	Disagree	Most disagree
36	I take notice of italics and headings in the texts so I can learn better.					
37	I learn by associating new concepts with real-life situations.					
38	I use my own language in comprehending what I am learning.					



Items	Statement	Level of Agreement				
		Most agree	Agree	Not sure	Disagree	Most disagree
39	I use simple charts, diagrams, and tables to summarize the content of the lessons learnt.					
	<b>2.6 Self Testing</b>	Most agree	Agree	Not sure	Disagree	Most disagree
40	I review lessons after studying them so that I can understand the content.					
41	Underlining parts of the text is very useful for my revision.					
42	I get into groups for tutorials and revision with friends.					
43	While reviewing for exams, I anticipate questions that may appear in the test paper.					
44	I read the assigned books for each subject.					
45	I come to class without preparation.					
46	I test myself to be sure that I understand the content being studied.					
47	I check my assignment in order to review what has been learned.					
	<b>2.7 Test Strategies</b>	Most agree	Agree	Not sure	Disagree	Most disagree
48	In preparing for exams, I try forming questions related to the subjects learnt.					
49	I have problems understanding the questions in the exam.					
50	I am certain that I can do the exam.					
51	I study hard just before every exam.					



**APPENDIX 2**  
**INDEX OF ITEM OBJECTIVE CONGRUENCE (IOC)**

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Universiti Utara Malaysia

### Index of Item Objective Congruence (IOC)

Item	Items No.	Expert Rates No.1	Expert Rates No.2	Expert Rates No.3	Expert Rates No.4	Expert Rates No.5	Total of expert rates	IOC = $\frac{\sum R}{N}$	Results
Self-awareness	1	1	1	1	1	1	5	1	selected
	2	1	0	1	1	1	4	0.8	selected
	3	1	1	1	1	-1	3	0.6	selected
	4	1	1	1	1	-1	3	0.6	selected
	5	1	1	1	1	1	5	1	selected
	6	1	-1	-1	0	1	0	0	removed
	7	-1	1	1	0	1	2	0.4	omitted
	8	0	1	-1	0	1	1	0.2	omitted
Self-regulation	1	1	1	1	1	-1	3	0.6	selected
	2	1	1	1	0	1	4	0.8	selected
	3	1	1	1	1	1	5	1	selected
	4	1	1	1	1	1	5	1	selected
	5	1	1	1	1	1	5	1	selected
	6	1	-1	1	1	1	3	0.6	selected
	7	1	1	1	1	1	5	1	selected
	8	1	-1	1	0	1	2	0.4	omitted
	9	1	1	1	1	1	5	1	selected
	10	1	0	1	1	1	4	0.8	selected
Motivation	1	1	1	1	0	1	4	0.8	selected
	2	1	1	1	1	1	5	1	selected
	3	1	1	1	1	1	5	1	selected
	4	1	1	1	0	-1	2	0.4	omitted

Item	Items No.	Expert Rates No.1	Expert Rates No.2	Expert Rates No.3	Expert Rates No.4	Expert Rates No.5	Total of expert rates	IOC = $\frac{\sum R}{N}$	Results
	5	1	0	1	0	-1	1	0.2	omitted
	6	1	1	1	1	1	5	1	selected
	7	1	1	1	1	1	5	1	selected
	8	1	1	1	0	-1	2	0.4	omitted
	9	1	1	1	0	1	4	0.8	selected
	10	1	0	1	1	1	4	0.8	selected
Empathy	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	1	5	1	selected
	3	1	1	1	1	1	5	1	selected
	4	1	1	1	1	-1	3	0.6	selected
	5	1	1	1	1	1	5	1	selected
	6	1	1	1	1	-1	3	0.6	selected
	7	1	1	1	1	-1	3	0.6	selected
	8	1	0	1	1	1	4	0.8	selected
	9	1	1	1	0	-1	2	0.4	omitted
	10	1	0	1	1	1	4	0.8	selected
Social Skill	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	1	5	1	selected
	3	1	1	1	1	-1	3	0.6	selected
	4	1	1	1	1	1	5	1	selected
	5	1	1	1	1	1	5	1	selected
	6	1	1	1	1	-1	3	0.6	selected
	7	1	-1	1	1	1	3	0.6	selected
	8	1	0	1	0	1	3	0.6	selected
	9	1	1	1	1	-1	3	0.6	selected
	10	1	1	1	1	1	5	1	selected
Primal Empathy	1	1	1	1	1	1	5	1	selected

Item	Items No.	Expert Rates No.1	Expert Rates No.2	Expert Rates No.3	Expert Rates No.4	Expert Rates No.5	Total of expert rates	IOC = $\frac{\sum R}{N}$	Results
	2	1	1	1	1	1	5	1	selected
	3	1	1	1	1	1	5	1	selected
	4	1	-1	1	1	-1	1	0.2	omitted
	5	1	-1	1	0	1	2	0.4	omitted
	6	1	-1	1	0	-1	0	0	removed
	7	1	1	1	1	-1	3	0.6	selected
	8	1	1	1	1	1	5	1	selected
Attunement	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	1	5	1	selected
	3	1	-1	1	1	1	3	0.6	selected
	4	1	1	1	1	-1	3	0.6	selected
	5	1	1	1	0	1	4	0.8	selected
	6	1	1	1	1	1	5	1	selected
	7	1	-1	1	0	-1	0	0	removed
	8	1	1	1	1	1	5	1	selected
Empathic Accuracy	1	1	0	1	1	1	4	0.8	selected
	2	1	0	1	1	1	4	0.8	selected
	3	1	1	1	1	1	5	1	selected
	4	1	1	1	1	1	5	1	selected
	5	1	1	1	1	-1	3	0.6	selected
	6	1	1	1	1	-1	3	0.6	selected
	7	1	1	1	1	1	5	1	selected
	8	1	1	1	1	-1	3	0.6	selected
Social Cognition	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	1	5	1	selected
	3	1	0	1	1	-1	2	0.4	omitted

Item	Items No.	Expert Rates No.1	Expert Rates No.2	Expert Rates No.3	Expert Rates No.4	Expert Rates No.5	Total of expert rates	IOC = $\frac{\sum R}{N}$	Results
	4	1	1	1	1	1	5	1	selected
	5	1	1	1	1	-1	3	0.6	selected
	6	0	1	1	1	1	4	0.8	selected
	7	1	1	1	1	-1	3	0.6	selected
	8	1	1	1	1	1	5	1	selected
Synchrony	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	-1	3	0.6	selected
	3	1	1	1	1	1	5	1	selected
	4	1	-1	1	1	-1	1	0.2	omitted
	5	1	1	1	1	1	5	1	selected
	6	1	0	1	1	-1	2	0.4	omitted
	7	1	1	1	1	1	5	1	selected
	8	1	1	1	1	1	5	1	selected
Self Presentation	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	1	5	1	selected
	3	1	0	1	1	1	4	0.8	selected
	4	1	1	1	1	1	5	1	selected
	5	1	-1	1	1	-1	1	0.2	omitted
	6	1	1	1	0	-1	2	0.4	omitted
	7	1	0	1	0	1	3	0.6	selected
	8	1	0	1	1	-1	2	0.4	omitted
Influence	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	1	5	1	selected
	3	1	1	1	1	1	5	1	selected
	4	1	0	1	1	1	4	0.8	selected
	5	1	-1	1	1	1	3	0.6	selected
	6	1	1	1	1	1	5	1	selected

Item	Items No.	Expert Rates No.1	Expert Rates No.2	Expert Rates No.3	Expert Rates No.4	Expert Rates No.5	Total of expert rates	IOC = $\frac{\sum R}{N}$	Results
	7	0	0	1	1	-1	1	0.2	omitted
Concern	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	1	5	1	selected
	3	1	1	1	1	1	5	1	selected
	4	1	-1	1	1	-1	1	0.2	omitted
	5	1	1	1	1	-1	3	0.6	selected
	6	1	1	1	1	1	5	1	selected
	7	0	1	1	0	1	3	0.6	selected
	8	1	-1	1	1	-1	1	0.2	omitted
	9	1	1	1	1	-1	3	0.6	selected
Attitude	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	1	5	1	selected
	3	1	1	1	0	-1	2	0.4	omitted
	4	1	1	1	0	-1	2	0.4	omitted
	5	1	1	1	1	-1	3	0.6	selected
	6	1	1	1	1	-1	3	0.6	selected
	7	1	1	1	1	-1	3	0.6	selected
Motivation	1	0	-1	1	1	-1	0	0	removed
	2	1	1	1	1	-1	3	0.6	selected
	3	0	0	1	0	-1	0	0	removed
	4	1	1	1	1	-1	3	0.6	selected
	5	1	-1	1	1	1	3	0.6	selected
	6	0	1	1	1	-1	2	0.4	omitted
	7	1	1	1	1	1	5	1	selected
Anxiety	1	1	0	1	1	-1	2	0.4	omitted
	2	1	1	1	1	-1	3	0.6	selected
	3	0	0	1	1	-1	1	0.2	omitted

Item	Items No.	Expert Rates No.1	Expert Rates No.2	Expert Rates No.3	Expert Rates No.4	Expert Rates No.5	Total of expert rates	IOC = $\frac{\sum R}{N}$	Results
	4	1	1	1	1	-1	3	0.6	selected
	5	0	1	1	1	1	4	0.8	selected
	6	1	0	1	0	1	3	0.6	selected
	7	1	0	1	0	1	3	0.6	selected
	8	1	0	-1	0	-1	-1	0	removed
Time Management	1	1	1	1	1	-1	3	0.6	selected
	2	1	1	1	1	1	5	1	selected
	3	0	1	1	0	-1	1	0.2	omitted
	4	1	0	1	1	-1	2	0.4	omitted
	5	1	1	1	0	1	4	0.8	selected
	6	1	1	1	1	-1	3	0.6	selected
	7	1	1	1	1	1	5	1	selected
	8	1	0	1	1	-1	2	0.4	omitted
Concentration	1	1	0	1	1	-1	2	0.4	omitted
	2	1	1	1	1	-1	3	0.6	selected
	3	1	1	1	1	1	5	1	selected
	4	1	1	1	0	-1	2	0.4	omitted
	5	1	1	1	1	-1	3	0.6	selected
	6	1	1	1	1	-1	3	0.6	selected
	7	-	1	1	-	-1	-	0	removed
Information Processing	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	-1	3	0.6	selected
	3	1	1	1	1	1	5	1	selected
	4	0	0	1	0	1	2	0.4	omitted
	5	1	1	1	1	-1	3	0.6	selected
	6	1	1	1	1	1	5	1	selected
	7	1	1	1	1	-1	3	0.6	selected



Item	Items No.	Expert Rates No.1	Expert Rates No.2	Expert Rates No.3	Expert Rates No.4	Expert Rates No.5	Total of expert rates	IOC = $\frac{\sum R}{N}$	Results
	8	1	1	1	1	1	5	1	selected
Selecting Main Ideas	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	-1	3	0.6	selected
	3	0	1	1	1	-1	2	0.4	omitted
	4	1	0	1	1	1	4	0.8	selected
	5	1	1	1	1	-1	3	0.6	selected
	6	1	1	1	1	1	5	1	selected
	7	1	1	1	1	1	5	1	selected
	8	1	0	1	1	-1	2	0.4	omitted
Study Aids	1	1	0	1	1	1	4	0.8	selected
	2	1	1	1	1	1	5	1	selected
	3	1	1	1	1	1	5	1	selected
	4	1	0	1	1	1	4	0.8	selected
	5	1	1	1	0	-1	2	0.4	omitted
	6	1	1	1	1	-1	3	0.6	selected
	7	1	0	1	1	-1	2	0.4	omitted
Self Testing	1	1	1	1	1	1	5	1	selected
	2	0	1	1	1	1	4	0.8	selected
	3	1	1	1	1	-1	3	0.6	selected
	4	1	1	1	1	1	5	1	selected
	5	1	1	1	1	1	5	1	selected
	6	1	1	1	1	-1	3	0.6	selected
	7	1	1	1	1	1	5	1	selected
	8	1	1	1	1	1	5	1	selected

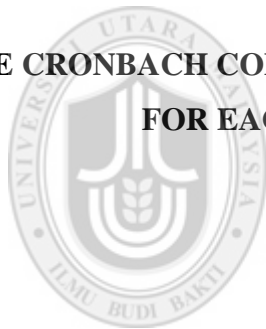
Item	Items No.	Expert Rates No.1	Expert Rates No.2	Expert Rates No.3	Expert Rates No.4	Expert Rates No.5	Total of expert rates	IOC = $\frac{\sum R}{N}$	Results
Test Strategies	1	1	1	1	1	1	5	1	selected
	2	1	1	1	1	-1	3	0.6	selected
	3	1	1	1	1	-1	3	0.6	selected
	4	1	0	1	1	-1	2	0.4	omitted
	5	1	0	1	1	-1	2	0.4	omitted
	6	1	0	1	1	1	4	0.8	selected
	7	1	1	1	1	1	5	1	selected



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### **APPENDIX 3**

#### **THE CRONBACH COEFFICIENT ALPHA VALUE FOR RELIABILITY TEST FOR EACH SECTION OF THE QUESTIONNAIRE**



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**The Cronbach Coefficient Alpha Value for Reliability Test for Each Items of the Emotional Intelligence**

<b>Items</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
EI1	147.94	168.121	.222	.829
EI2	148.13	167.734	.255	.829
EI3	149.15	167.913	.141	.832
EI4	149.02	157.704	.378	.825
EI5	148.40	167.087	.223	.830
EI6	149.16	166.478	.167	.832
EI7	148.76	168.028	.162	.831
EI8	148.37	166.729	.268	.828
EI9	148.42	166.178	.257	.829
EI10	148.51	165.744	.250	.829
EI11	148.99	161.095	.314	.828
EI12	148.56	166.656	.202	.830
EI13	148.61	166.823	.207	.830
EI14	148.09	165.609	.298	.828
EI15	148.00	166.939	.238	.829
EI16	148.47	166.901	.260	.829
EI17	148.04	165.045	.375	.826
EI18	148.09	165.663	.320	.827
EI19	148.76	169.231	.105	.833
EI20	148.20	166.919	.276	.828
EI21	147.96	165.541	.400	.826
EI22	148.04	165.080	.406	.826
EI23	148.27	165.309	.342	.827
EI24	147.95	165.252	.398	.826
EI25	147.90	166.263	.363	.827
EI26	147.99	166.693	.315	.828
EI27	148.94	155.817	.439	.823

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EI28	148.27	166.513	.282	.828
EI29	148.29	165.717	.313	.827
EI30	148.79	151.866	.463	.822
EI31	148.40	165.615	.358	.827
EI32	147.93	164.061	.448	.825
EI33	148.46	165.474	.355	.827
EI34	148.40	165.294	.371	.826
EI35	148.88	156.139	.432	.823
EI36	148.99	154.748	.455	.822
EI37	148.08	164.492	.342	.827
EI38	148.97	156.543	.356	.827
EI39	148.33	165.291	.311	.827
EI40	148.07	164.987	.328	.827

**The Cronbach Coefficient Alpha Value for Reliability Test for Each Items of Social Intelligence**

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SI1	187.87	275.024	.472	.887
SI2	187.87	275.565	.470	.887
SI3	187.92	277.265	.379	.888
SI4	188.76	270.054	.307	.890
SI5	188.26	276.283	.380	.888
SI6	187.78	277.464	.382	.888
SI7	187.66	274.947	.469	.887
SI8	189.03	280.243	.120	.892
SI9	189.05	279.517	.175	.891
SI10	188.43	276.779	.318	.888

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SI11	187.61	275.803	.423	.887
SI12	187.97	275.612	.395	.887
SI13	188.11	273.921	.480	.887
SI14	188.07	274.571	.439	.887
SI15	187.87	276.338	.440	.887
SI16	188.22	275.418	.411	.887
SI17	188.98	280.333	.140	.891
SI18	188.67	268.965	.365	.888
SI19	188.98	279.489	.152	.891
SI20	188.76	270.732	.349	.888
SI21	187.60	276.923	.350	.888
SI22	187.88	276.229	.384	.888
SI23	187.99	276.368	.371	.888
SI24	188.93	272.640	.340	.888
SI25	187.94	275.165	.406	.887
SI26	188.82	270.650	.334	.889
SI27	187.95	274.351	.481	.887
SI28	188.47	276.216	.335	.888
SI29	188.93	277.544	.222	.890
SI30	187.68	275.358	.437	.887
SI31	187.65	274.939	.476	.887
SI32	188.04	272.110	.506	.886
SI33	188.32	275.868	.393	.888
SI34	188.11	274.455	.457	.887
SI35	188.12	275.962	.446	.887
SI36	188.38	277.480	.333	.888
SI37	187.88	274.740	.492	.887
SI38	187.95	275.040	.429	.887
SI39	188.99	279.195	.219	.890
SI40	188.40	276.073	.378	.888

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SI41	188.28	276.688	.349	.888
SI42	188.13	276.461	.331	.888
SI43	188.83	273.782	.352	.888
SI44	188.33	278.070	.321	.888
SI45	187.83	275.167	.411	.887
SI46	187.79	274.189	.459	.887
SI47	188.10	275.337	.406	.887
SI48	188.91	275.150	.280	.889
SI49	188.35	277.874	.258	.889
SI50	188.09	274.699	.444	.887
SI51	188.12	275.891	.397	.887

**The Cronbach Coefficient Alpha Value for Reliability Test for Each Items of Strategic Learning Behavior**

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SLB1	175.65	220.094	.306	.746
SLB2	175.69	220.543	.279	.747
SLB3	177.33	226.385	-.022	.757
SLB4	176.32	218.874	.288	.746
SLB5	175.54	214.818	.116	.760
SLB6	176.48	216.679	.244	.747
SLB7	176.76	216.341	.264	.746
SLB8	176.08	218.041	.385	.744
SLB9	176.23	215.273	.148	.754
SLB10	177.01	223.737	.053	.755
SLB11	176.62	222.723	.113	.751
SLB12	177.04	223.792	.061	.754
SLB13	176.83	224.675	.032	.755

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SLB14	176.79	223.363	.081	.753
SLB15	176.70	215.901	.278	.745
SLB16	175.91	219.450	.300	.746
SLB17	176.16	217.511	.371	.744
SLB18	176.60	222.063	.125	.751
SLB19	176.54	217.103	.333	.744
SLB20	176.72	216.074	.299	.745
SLB21	176.64	216.900	.214	.748
SLB22	176.55	219.912	.236	.747
SLB23	176.84	222.537	.104	.752
SLB24	176.20	217.531	.378	.744
SLB25	176.33	217.305	.327	.744
SLB26	176.16	216.792	.454	.742
SLB27	176.10	218.037	.379	.744
SLB28	176.74	218.913	.224	.748
SLB29	176.62	216.473	.271	.746
SLB30	176.08	216.904	.444	.742
SLB31	176.01	216.804	.451	.742
SLB32	175.96	217.827	.444	.743
SLB33	177.01	223.065	.090	.753
SLB34	176.07	218.524	.390	.744
SLB35	176.06	219.723	.271	.747
SLB36	176.23	219.433	.282	.746
SLB37	176.10	219.024	.346	.745
SLB38	175.80	220.029	.307	.746
SLB39	176.33	217.128	.359	.744
SLB40	176.21	216.002	.123	.757
SLB41	175.65	220.621	.279	.747
SLB42	176.09	218.905	.300	.746
SLB43	176.12	219.096	.308	.746
SLB44	176.01	218.105	.371	.744



Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SLB45	176.73	218.392	.219	.748
SLB46	176.24	217.832	.413	.744
SLB47	175.99	217.928	.433	.743
SLB48	176.90	214.250	.048	.777
SLB49	176.98	220.463	.171	.750
SLB50	176.32	219.597	.278	.746
SLB51	177.15	226.228	-.023	.758



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