



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

Rhian E. Salcedo

A Thesis Submitted in Partial Fulfillment of the  
Requirements for the Degree of  
MASTER OF EDUCATION  
in Educational Administration  
Graduate School of Human Sciences  
ASSUMPTION UNIVERSITY OF THAILAND

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**I.D. No. 5919503**

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COLLEGE- CHONBURI, THAILAND

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**Field of Study:** EDUCATIONAL ADMINISTRATION

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**Accepted by the Graduate School of Human Sciences, Assumption University in  
Partial Fulfillment of the Requirements for the Master Degree in Education**



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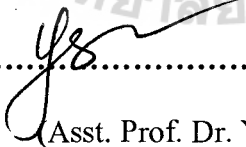
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## ABSTRACT

**I.D. No.:** 5919503

**Key Words:** STUDENTS' ACHIEVEMENT, PERCEPTION, CHARACTER  
STRENGTHS, VOCATIONAL COLLEGE

**Name:** RHIAN ESTRADA SALCEDO

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The main purpose of this study was to identify the relationship between students' perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College –Chonburi. The researcher collected the data of the perception of the students towards character strengths through questionnaire and their academic achievements through their official college registrar. The research instrument is in line with the survey of character strengths as that used by VIA Survey of Character Strengths which is psychometrically validated personality test that measures an individual's character strengths. The study was based on the PERMA Theory (positive emotions, engagement, relationships, meaning and achievement) and the 21<sup>st</sup> century skills.

Descriptive statistics and Pearson's product-moment correlation coefficient test were used to examine the objectives of the study. It was found that students have unequal amounts of moderate and high perceptions of their strengths. The strength of teamwork scored the highest while leadership had the lowest. Out of the ten character strengths surveyed, two character strengths scored moderate (1) perseverance and (2) leadership while eight strengths

were interpreted as high namely zest, self-regulation, social-intelligence, teamwork, gratitude, creativity, curiosity, and open-mindedness. Students' academic achievement in terms of their GPA was found very high. As to the correlation between students' perception towards character strengths and their academic achievement, it was found that there was no significant relationship. Based on the findings, future research should include more questions which surveyed the strengths to reveal additional data and more comparisons.



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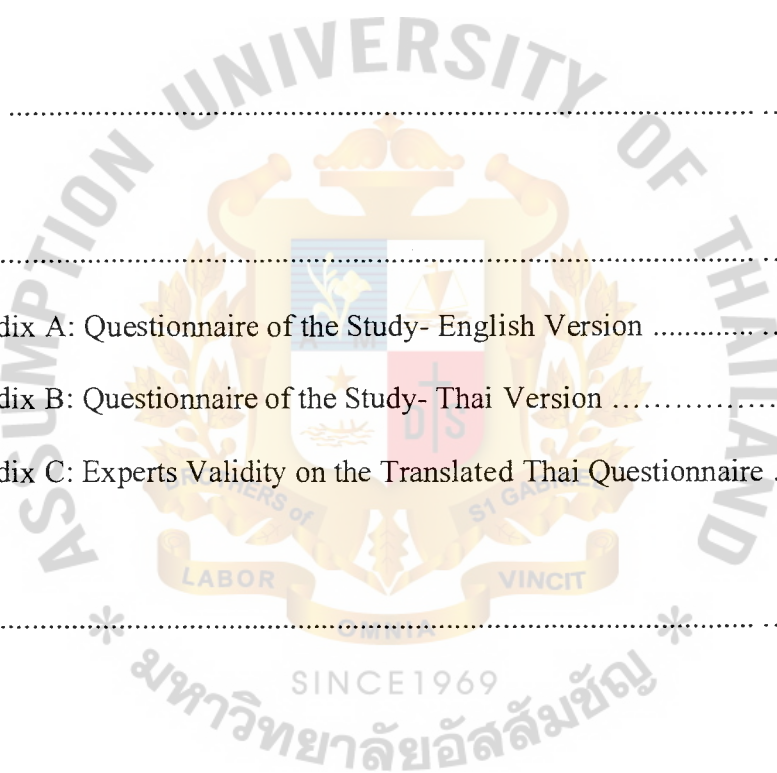
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## **CHAPTER I**

### **INTRODUCTION**

This chapter provides and discusses the introduction to the background of the study, statement of the problem, research questions, research objectives, research hypothesis, theoretical framework, conceptual framework, the scope of the study, definition of terms and significance of the study.

#### **Background of the Study**

Character strengths or non-cognitive skills are as important as intelligence skills for success. As described by Seligman and Peterson (2004) it refers to “positive traits reflected in thoughts, feelings, and behaviors”. Recent research found that it is one of the predictors of success in aspects of life from savings, and physical health (Moffitt, Arseneault, Belsky, Dickson, Hancox, Harrington, Caspi, 2011) or even in academic achievement (Duckworth and Gross, 2014). Both Freud (1920) and James (1890) hypothesized that in everyday success, attention and emotion regulation and regulating behavior are important. Self-control for example, can predict important outcomes in life (Duckworth & Seligman, 2005; Moffitt, Arseneault, Belsky, Dickson, Hancox, Harrington, Caspi, 2011)

Self- control was an example of character strengths which are proven to be essential in human's success. If this kind of character strength is integrated in the curriculum, it might help our students to be successful in achieving better academic achievement. In fact, studies have shown that having good character strengths at early life like self-control can predict academic achievement and attainment in later part of one's life (Duckworth & Carlson, 2013; Mischel, 2014).

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

Character strengths do not only focus in helping students achieve their goals but for teachers too. In a study conducted by Duckworth and Robertson-Kraft (2014) grittier teachers and novice outperformed less gritty teachers and remain committed to their jobs. The study showed the potential of integrating psychological framework in policy decisions related to teacher recruitment and development as it also explains individual's success (Duckworth, A. and Robertson-Kraft, C., 2014).

However, character strength's importance has not been given much emphasis as most school policies focus on the intelligence domain of the learner specifically even though character strengths can potentially help students in their academic struggles, they need to assessed and guided accordingly. Though there are other aspects which contribute to success like achieving world-class skill must need to engage in a deliberate practice (Ericsson & Charness, 1994).

This research intended to survey and analyze the character strengths of Science-Based Technology Vocational College in Chonburi students in relation to their academic achievement.

This boarding school houses some of the best students among vocational students in Thailand. Their curriculum focused largely on STEM Education and Project-Based Learning and character education has been left out. This research aimed to equip teachers and students the knowledge and assessment on character strengths to help facilitate students' academic achievement.

### **Statement of the Problem**

This research's purpose was to determine the relationship between the students' perception towards their own character strengths and how it affects to their academic achievement. In a study conducted by Park and Peterson (2008a) among middle school and college students, it was found that character strengths of perseverance, love, gratitude, and hope predicted grade point average but no previous research has been done on such character education specifically in vocational education in Thailand. The importance of character strengths among vocational colleges in Thailand was not given much emphasis.

This research carried out to explore the perception of the students of their own character strengths and how could it help their academic achievement. Also, with the main purpose of helping the administrators to consider some educational reform like revamping and integrating character strengths to the curriculum for better academic achievements of the students.

### **Research Questions**

The following were the research questions for this study:

1. What is the students' perception towards their own character strengths at Science-Based Technology Vocational College, Chonburi?
2. What is the students' academic achievement at Science-Based Technology Vocational College, Chonburi?
3. Is there any significant relationship between students' perception of their own character strengths and their academic achievement at Science-Based Technology Vocational College (Chonburi)?

### **Research Objectives**

This research was conducted for the following objectives:

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



## **Research Hypothesis**

There is a significant relationship between students' perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College (Chonburi).

## **Theoretical Framework**

This research was mainly based on the PERMA Theory developed by Seligman (2011). It was composed of five core elements of psychological well-being and happiness. These five elements - Positive Emotion, Engagement, Relationships, Meaning and Achievement- enables flourish and help a life of fulfillment, happiness and meaning. Character strengths are the backbone of the Well-Being Theory or PERMA (positive emotions, engagement, relationships, meaning and achievement) Seligman (2011). He believed that the more positive emotion, more engagement, better relationships, more meanings and more achievements give a life of satisfaction. Seligman (2011) described that in a pursuit of achievement, in order to be a master of something, one must be persistent and determined.

Another significant basis which supports this study is the 21st century skills. According to the Center for Curriculum Design part of the 21<sup>st</sup> century education is character. This research focused only on ten character strengths which have commonalities with the 21<sup>st</sup> century skills like leadership, curiosity and perseverance. According to Scott (2015) because of the globalization, proliferation of high technology, changes in political landscapes, migration and evolving markets students need to knowledgeable and acquire new sets of skills for survival and to be successful in the twenty first century. These set of skills are referred to higher-order thinking skills, deeper learning outcomes, complex thinking and communication skills.

Apart from those identified skills, another set of competencies and skills identified by Wagner (2010) and the Change Leadership Group at Harvard University are critical thinking and problem solving, collaboration and leadership, agility and adaptability, initiative and entrepreneurialism, effective oral and written communication, accessing and analyzing information, curiosity and imagination.

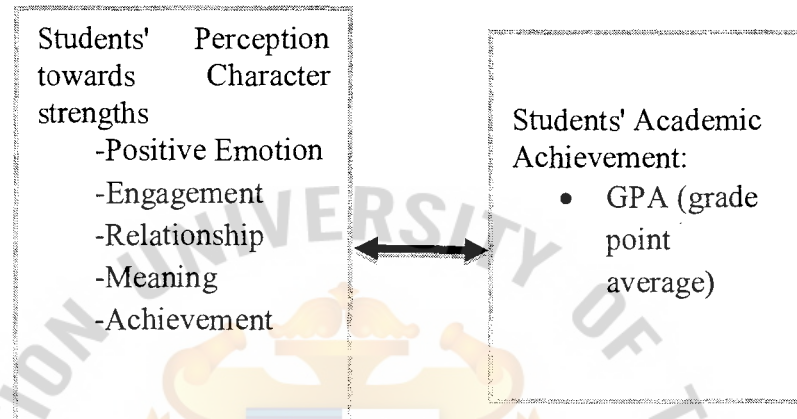
To foster these 21st century learning skills, several research-based curriculum models were developed. The “3 Rs” (Reasoning (analytical, critical thinking and problem-solving skills), Resilience (life skills such as flexibility, adaptability and self-reliance) and Responsibility (wisdom or the application of intelligence, creativity and knowledge for a common good) for example can, be reinforced by this kind of model (Sternberg and Subotnik, 2006). Another 3 Ps model that cultivates 21st century skills is a student-centric curriculum by Prensky (2012) which includes passion (including character), problem-solving (including communication) and producing (including creativity and skill).

### **Conceptual Framework**

In this research, the researcher attempted to assess and identified the relationship between students’ perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College (Chonburi).

There were two main variables in this research. This research used Seligman (2011) PERMA Theory (Positive Emotion, Engagement, Relationships, Meaning and Achievement) in which character strengths are the foundation of the theory. Character strengths were the independent variables which were categorized into positive emotion, engagement, relationship,

meaning and achievement. Each component contained specific strengths, for positive emotion, it included perseverance and zest; engagement had self-regulation; the strengths of social intelligence, teamwork and leadership for the relationship component; meaning component had gratitude; and for achievement component it included the strengths of creativity, curiosity, and open-mindedness. For the independent variable, it was the students' academic achievement.



### ***Conceptual Framework of the Study***

***Figure 1. The Model for the Relationship between Character Strengths and Students' Academic Achievement at Science-Based Technology Vocational College, Chonburi***

### **Scope of the Study**

The study was conducted at Science-Based Technology Vocational College Chonburi during the academic year 2018. The respondents of the study were 90 students from the college. The respondents were all students from second year to third year certificate levels at the college. Students from the first year were not used as they just started their college life with few subjects, so they have limited data on their academic achievement.

The number was relatively small as the college acceptance deployed a very competitive selection process and largely because of the budget allocation funded by the Thai

government. Therefore, admission rates are smaller than the average and regular vocational and technical colleges.

Though there are five Science-Based colleges across the country, the researcher only ran the study at Science-Based Technology Vocational College in preparation for the adaptation of new curriculum based in Japan for engineering courses that was implemented this academic year. Also, due to the limited approval by the Office of Vocational Education Commission to conduct among five colleges the researcher decided to conduct at one of the colleges only.

The study was conducted in February 2018 with the support and permission of the administrators at Science-Based Technology Vocational College Chonburi.

### Definition of Terms

This research has developed the following definition of terms:

**Character Strengths** –refers to the measurable disposition of an individual that could be identified as their strengths. These were measured by the questionnaire under five components positive emotion, engagement, relationship, meaning achievement. Each component was composed of different strengths; for positive emotion, it included perseverance and zest; engagement had self-regulation; the strengths of social intelligence, teamwork and leadership for the relationship component; meaning component had gratitude; and for achievement component it included the strengths of creativity, curiosity, and open-mindedness.

**Science-Based Technology Vocational College, Chonburi-** refers to one of the five national Science-Based colleges in Thailand which is fully funded by the government. The college uses project-based learning approach which is one of a kind among vocational and technical colleges.

**Academic Achievement-** refers to the attainable success at school through student's ability and strengths. In this study, it was measured by GPA.

**Grade Point Average (GPA)** –refers to the accumulated scores of all subjects in the college academic system.

**Students-** refers to the 150 respondents studying at Science-Based Technology Vocational College, Chonburi

**Student's perception-** refers to the idea, opinions, concept and attitudes towards character strengths of the students at the sample college.

**Positive Emotion-** It corresponds to the virtue of courage with perseverance and zest as its character strengths. It was measured in the questionnaire items 1 to 8.

**Engagement-** It corresponds to strengths of restraint or temperance with self-regulation as its character strength. It was measured in the questionnaire items 9 to 12.

**Relationship-** It corresponds to the strengths justice and virtue with social intelligence, leadership and teamwork as its character strengths. It was measured in the questionnaire items 13 to 24.

**Meaning-** It corresponds to the virtue of transcendence with gratitude as its character strength. It was measured in the questionnaire items 25 to 28.



**Achievement-** It corresponds to the virtues of wisdom and knowledge with creativity, curiosity and open-mindedness as its character strengths. It was measured in the questionnaire items 29 to 40.

### **Significance of the Study**

The researcher undertook the study with the aim of presenting ideas and solutions for advancing character strengths to help improve the academic achievement of the students to all different stakeholders including teachers, parents, administrators and student themselves.

For the students, this research would determine and assess students' own character strengths to help flourish their potentials for a positive impact on academic achievements. It would also provide student the knowledge and eventually skills on how to bridge between motivation and skills for achievement.

The result of this research would be beneficial to the teachers as well as it would provide an appropriate assessment in every child's strength in alignment to the instructional method appropriate for the learners.

For policy makers and administrators, the results of this study would provide information of integrating character strengths in curriculum and the surrounding recruitment of teachers. Also, the objective outcomes of character strengths as part of the curriculum would guide them. It would allow them to design programs that would help flourish the signature strengths of the students to thrive success at schools.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

This chapter presents the overview of the related literature of the study in character strengths and its impact on academic achievement of the students. In-depth literature of positive psychology, classification of character strengths and virtues, major theories and application, review of central issues, previous research, and the background of the sample college.

The term character strengths have been used by Seligman and Peterson (2004) to refer to positive traits reflected in thoughts, feelings, and behaviors. Strengths of character and positive experiences such as a satisfied life are among the central concerns of positive psychology (McCullough & Snyder, 2000; Seligman, 2002). It has been suggested that positive relationship has varied impact including motivation and school engagement (Wentzel & Wigfield, 1998; Furrer & Skinner, 2003).

Every response of a person helps predicts the health and relationship impacts to the well-being of an individual. As described by Gable, Reis, Impett and Asher (2004) only an active constructive response has positive benefits both individual and relationship well-being and the rest are all negative in relation to the well-being.

#### PERMA Theory

Character strength is “a disposition to act, desire, and feel that involves the exercise of judgment and leads to a recognizable human excellence or instance of human flourishing” (Yearley, 1990, p, 13). Character strengths are the backbone of the Well-Being Theory or PERMA (positive emotions, engagement, relationships, meaning and achievement) which was

developed by Seligman (2011) and has identified 5 core elements. These five elements; positive emotions, engagement, relationships, meaning and achievement are believed to help people reach a life of well-being.

### *Positive Emotion*

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

### *Engagement*

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

### *Relationships*

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

Feeling valued by others and having close, mutually satisfying relationships is another key indicator of well-being. A study conducted by Diener and Seligman (2002) among college students revealed that students who often socialize are happier than those who don't. Furthermore, a study across 55 nations a predictor of happiness is good relationship (Diener & Oishi 2000).

### *Meaning*

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

### *Achievement*

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

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

In a study by Kern, Waters, Adler, & White (2014), they found significant relationship between each PERMA elements to physical health, job and life satisfaction and even to employee's commitment to their organization or school. In relation to this results, other research revealed that positive emotions are a key indicator of well-being and are correlated to life satisfaction (Coffey, Warren & Gottfried, 2014); Cohn and Fredrickson 2009; Lyubomirsky,

gratitude, love, and curiosity while appreciation of beauty, creativity, judgment, and love of learning) were only weakly associated with life satisfaction (Park, 2004). Though the mental and intellectual do not are less associated with life satisfaction, they are highly valued in educational field.

Peterson and Seligman (2004) named 24 character strengths; creativity, curiosity, open-mindedness, love of learning, perspective, authenticity, bravery, persistence, zest, kindness, love, social intelligence, fairness, leadership, teamwork, forgiveness, modesty, prudence, self-regulation, appreciation of beauty and excellence, gratitude, hope, humor, and religiousness.

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

These 24 character strengths are divided into six categories of virtues: (a) wisdom and knowledge, (b) courage, (c) humanity, (d) justice, (e) temperance, and (f) transcendence (Peterson & Seligman, 2004). Positive psychology has three main areas of which character strengths and virtues are part of it. The study of positive emotions, positive character and positive institutions are the three areas of the study (Seligman & Csikszentmalyi, 2000; Seligman, Steen, Park & Peterson, 2005).

### **Classification of Character Strengths**

The set of character strengths came from the research of Dr. Seligman from the University of Pennsylvania (Seligman, 2011). They found out that these character strengths help us flourish our potential if only we know what our strengths are and how to make the best out of



each strength. Over time, these character strengths can be changed that's why it is different from character traits.

### ***Strengths of Wisdom and Knowledge***

Strengths of wisdom and knowledge or cognitive strengths as referred in psychological term. It comprises of positive traits important for knowledge and information acquisition. It includes creativity, curiosity, open-mindedness, love of learning and perspective (Peterson & Seligman, 2004).

### ***Strengths of Courage***

These are positive traits are required exercise of will accomplish goals in life in the face of setbacks and adversity. It includes honesty which means speaking the truth and presenting oneself in a genuine manner; bravery-- not shrinking from threat, challenge, difficulty or pain; perseverance-- finishing what has been started; and zest-- facing life with energy and excitement (Peterson & Seligman, 2004)

### ***Strengths of Humanity***

As what Taylor, Kemeny, Reed, Bower & Gruenewald (2000) referred to as tending and befriending others. It includes positive traits which display caring relationship with other. Those positive traits are kindness--- doing good deeds and favors for others; love--- valuing relationship with others; social intelligence--- familiarizing the motives and feelings of one's self.

### ***Strengths of Justice***

These are strengths related to individual's interaction to the group or community. It is broadly interpersonal. It is comprised of fairness--fair treatment to people accordingly;

leadership--- organizing group activities; teamwork-- working well as a member of a group or team (Peterson & Seligman 2004).

### ***Strengths of Temperance***

According to Peterson & Seligman (2004) temperance strengths are defined in part by what a person refrains from doing, and protect against excess. It includes forgiveness--- forgiving who have done wrong; modesty-- letting one's accomplishment speak for themselves; prudence-- careful about things that one's might regret; self-regulations--- regulating what one feels and does.

### ***Strengths of Transcendence***

These are strengths that connect people to larger universe and gives meaning. It includes appreciation of beauty-- noticing beauty and excellence, and or skilled performance in all domains of life; gratitude-- being aware of and thankful for the things that happen; hope-- expecting the best and working for the best; humor-- liking to laugh and joke; and spirituality or religiousness which means having beliefs about higher purpose and meaning of life (Peterson & Seligman, 2004)

## **Competencies and Learning Skills for the 21st Century Theory**

As identified in the theoretical framework, the following were some of the skills considered as 21st century skills based on the research of Wagner (2010) critical thinking and problem solving, collaboration and leadership, communication (written and oral) and curiosity and imagination. Simultaneously, other 21st century skills needed by the students are adaptability, productivity and accountability, innovation, global citizenship, entrepreneurialism, and the ability to access, analyze and synthesize information were identified by Barry (2012).

Twenty first skills are very important for the students to succeed in a highly competitive 21st century workplace (Learnovation, 2009). These skills are comprised of personal skills (initiative, resilience, responsibility, risk-taking and creativity), social skills (teamwork, networking, empathy and compassion) and learning skills.

### ***Critical thinking***

One of the important skills pinpointed by the The US Department of Labor's Secretary's Commission on Achieving Necessary Skills (SCANS) (1991) necessary for the success in the workplace is critical thinking. This skill can be taught and mastered which involves analyzing and synthesizing information (Redecker, Ala-Mutka, Leis, Leendertse, Punie, Gijsbers, Kirschner, Stoyanov, and Hoogveld, 2011). Alan & Bayou, (1997) critical thinking skill uses higher order reasoning skill which include analysis and synthesis of the problems.

### ***Problem-solving***

Another basic competency of twenty-first century learning is problem-solving (Ananiadou and Claro, 2009; P21, 2007a, 2007b, 2013; Redecker, Ala-Mutka, Leis, Leendertse, Punie, Gijsbers, Kirschner, Stoyanov, and Hoogveld, 2011; Sternberg and Subotnik, 2006; Trilling and Fadel, 2009). Understanding how to evaluate information and other complex ideas are essential in the 21st century (Scott, 2015). To distinguish between old and new ideas, contexts and goals and being able to use needed new knowledge are also essential skills in solving a problem (Facer, 2011; Gijsbers and van Schoonhoven, 2012; Redecker, Ala-Mutka, Leis, Leendertse, Punie, Gijsbers, Kirschner, Stoyanov, and Hoogveld, 2011).

In the twenty first century, to be successful in solving complicated problems, teamwork and cooperation play vital roles. Learners also must be technology literate to keep pace with the

fast changing technology innovation to effectively collaborate. Other skills related to effective problem solving skill is flexibility and self-direction (Scott, 2015).

### ***Communication and collaboration***

Both effective communication and collaboration are essential skills to the twenty first century. Research shows that to engage in a productive participation in the society, skills like coordination and collaboration would be important (Redecker, Ala-Mutka, Leis, Leendertse, Punie, Gijbbers, Kirschner, Stoyanov, and Hoogveld, 2011). In addition, the National Education Association has reported that excellent communication skills both written and oral, the ability to be fluid, articulate and persuasive in conveying ideas are given highly importance in the workplace and public life (NEA, 2010). According to Johnson, Johnson and Stanne (2000) an increase of academic achievement, positive social skills and self-esteem have been found out among the students who possess work cooperation skill. It has also found out that cooperative efforts resulted to an increase individual achievement. Trilling and Fadel (2009) has concluded that to conform collaborative learning curriculum must be reformed including assessments, learning methodology and even teacher development programs.

### **Positive Psychology**

Character strengths and virtues are regarded as the backbone of the science of positive psychology. Positive psychology was "the scientific study of what goes right in life" (Seligman & Csikszentmihalyi, 2000). It was the study of people's experience at their best and doing their best. It distinguished from a contemporary psychology as it maintains the business-as-usual but it seeks to understand how human experience contributes to good life. However, definitions of happiness, health and good character which are important to personal well-being as well society

at large have different definitions depending on time, place and culture (Park, N., & Peterson, C. 2008a).

Positive psychology has a basic assumption that human well-being and in achieving excellence is equal as disease and distress and therefore deserves to have equal attention from psychological service providers (Peterson & Park, 2003). Positive psychology is an umbrella term for the study of positive character traits, positive emotions, and enabling institutions (Seligman, Steen, Park & Peterson, 2005). It has three different areas—the study of positive emotion, positive character and positive institutions (Seligman & Csikszentmalyi, 2000; Seligman, Steen, Park & Peterson, 2005).

Domains identified by positive psychology as critical to the psychological good life include positive subjective experiences (e.g., happiness, life satisfaction, fulfillment, flow); positive individual traits (e.g., character, interests, values); positive relationships (e.g., friendship, marriage, collegueship); and positive groups and institutions (e.g., families, schools, businesses, communities). Positive groups and institutions enable the development and display of positive relationships and positive traits, which in turn enable positive subjective experiences. People are at their best when all four domains are aligned (Park, N., & Peterson, C., 2008a)

### **Values in Action (VIA) Project**

The Values in Action (VIA) Classification of Strengths was a project that focuses on character strengths and its importance to optimal human development (Park & Peterson, 2006a, 2006b, 2006c; Peterson & Seligman, 2004). The project involved the scholars Donald Clifton, Mihalyi Csikszentmihalyi, Ed Diener, Kathleen Hall Jamieson, Robert Nozick, Daniel Robinson,



Martin Seligman, George Vaillant, and Christopher Peterson about possible human strengths. The project came up with initial list of character strengths and virtues. Peterson and Seligman (2004) and Park, Peterson, and Seligman, (2006) identified 24 widely acknowledge character strengths and organized them under six virtues.

The VIA project provided vocabulary for psychological personal qualities of individual worthy of moral praise (Park, & Peterson, 2008a).

### **Empirical Findings**

#### ***Character Strengths and Achievement***

Studies conducted related to life success like in work and school, perseverance appears to be the most identified character strength. In a longitudinal study where non-intellectual factors are controlled, strengths of perseverance, fairness, gratitude, honesty, hope, and perspective predicted GPA (Park & Peterson, 2008a). Perseverance, love, gratitude, and hope predicted academic achievement in middle school students and college students (Park & Peterson, 2009a). Another study revealed that the character strengths that predicted GPA in college students were perseverance, love of learning, humor, fairness, and kindness (Lounsbury, Fisher, Levy & Welsh, 2009). In terms of teacher's effectiveness based on their students' results on standardized tests, scored high in social intelligence, zest, and humor (reported in Park & Peterson, 2009a). While Peterson and Park (2009) have found that character strength of love predicted the military performance among West Point cadets.



### ***Character Strengths and Life Satisfaction***

Life satisfaction (happiness) is one of the areas mostly commonly studied in positive psychology. Research has found a relationship between character strengths and life satisfaction. Hope, zest, gratitude, curiosity, and love are the five character strengths consistent to life satisfaction (Park, Peterson, & Seligman, 2004). Similar results have been found in a Croatians (Brdar & Kashdan, 2010), and young Japanese adults (Shimai, Otake, Park, Peterson, Seligman, 2006).

### **Previous Studies on Character Strengths and Achievement**

In a research conducted by (Duckworth and Seligmann, 2005) it revealed that there was a remarkable correlation between academic achievement and personality characteristics with a score of 48 percent of the variance in academic achievement. Evidence from a study conducted by Park and Peterson (2008a) among middle school and college students, it was found that character strengths of perseverance, love, gratitude, and hope predicted grade point average.

Further findings of Park and Peterson (2008a) suggested that strengths like leadership and fairness, and temperance strengths of self-regulation, prudence, and forgiveness are among the highly ranked character strengths of popular students.

Interestingly, Park & Peterson (2009b) concluded that the strengths of love and kindness were related to popularity. They also reported that perseverance and temperance strengths predicted academic achievement among school children. Further evidence in a research conducted by Lounsbury, Fisher, Levy & Welsh (2009) has confirmed that the strengths of perseverance, self-regulation, prudence, judgment, and love of learning predicted the GPA in college students.

Other findings highlighted by Lounsbury, Fisher, Levy & Welsh (2009) that hope, social intelligence, self-regulation, and fairness were predictors of college satisfaction. Park & Peterson (2008a) noted that all these findings are related to achievement, life satisfaction, and well-being in children and youth.

### **Background of the College**

Science Based Technology Vocational College (Chonburi) was established as a vocational education organization for training and practice to support the need of local people and all of education levels, also market demands of manpower to follow economic growths and cooperation of local society to develop the life quality of manpower as for the government policy. In 2008, the science-based schools which focus on science and technology were initiated in response to the problems faced by Thailand. Five schools have been established and one of which is the Science-Based Technology Vocational College in Chonburi.

Science Based Technology Vocational College (Chonburi) which was formerly named as Phantong Industrial and Community College under the Vocational Education Commission, Ministry of Education, and Thailand, and later on 21<sup>st</sup> May, 2009, its name was changed to Science Based Technology Vocational College (Chonburi) to support the increasing quantity of Science Based Technology students in the future. It was established on 24<sup>th</sup> February, 1997 and it is located at 37 Mu 3, Tumbol Bankao, Amphoe Phantong, Chonburi Province. The college has an area of 25. 306 acres. In 1998, the college started to offer certificate level courses in Industrial Technology and Commerce which includes Automotive, Electrical Power, and Accounting. At present, students are enrolled into two different programs, the regular and Science-Based program.

For the Science-Based program, the college uses project-based approach in technology and engineering and it is fully funded by the Thai government. Since its inception the college has expanded its course. At present, it offers five courses including mechatronics, electronics, electrical engineering, construction and automotive. The college builds competitiveness among the students through joining local and national competitions. The campus is a hub of not just the Science-Based curriculum students but also regular students, enrolled under the Thai regular curriculum. The acceptance rates are low due to its competitive selection process and limited budget allocation. However; the students enrolled in the Science-Based programs enjoy exclusive privilege. All students from first year to third year level receive a full scholarship. The grant covers free tuition fee, two free meals a day (breakfast and dinner), clothing allowance, a small stipend and free accommodation.

The college provided dormitory to all students allowing them to work even weekends. Some students stay most of their weekend on campus to work on their inventions or homework for example. Due to the strategic location of the college, which is in the center of Amata, an industrial estate/area, many Japanese companies are hiring some of the best graduates around the area. The college has collaboration with Japanese companies around the area. To further strengthen its educational standard offered with the support of the Office of Vocational Education Commission, Ministry of Education, the college is now embarking on a new educational benchmark. Through a memorandum of understanding, the college is now one of the partners of a pilot program for Kosen education. It is an educational system that employs rigorous curriculum by both theoretical classes combined with practical trainings which counts the highest amount of period involved. To assess the readiness of the college, Japanese experts

have invigilated math exams to the students to identify the capacity of the college as to the Japanese standards.

Results showed that the students' math ability is significantly low as compared to the Japanese. Though graduates of the college are highly accepted in most prestigious and highly selective universities in Thailand, the students' ability needs to be challenged and developed.

In order to maintain and ensure standards, improvements and proper trainings to the students, some collaboration has been established. For example, the British Council of Thailand provides trainings and professional development to teachers in the field of Science, Technology, Engineering, and Mathematics education and innovation. In pursuit of excellence, series of management training are also provided to further strengthen the administration and curriculum reviews and revision.



## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter discusses the research methodology including the research design, population, research instrument, collection of data and data analysis.

#### **Research Design**

In this study, the researcher aimed to identify the students' perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College Chonburi. The researcher examined the correlation between the character strengths and student's academic achievement at the college based on the collected data.

This study employed descriptive and correlational methods. The researcher collected the data of the perception of the students towards their own character strengths through questionnaire and their academic achievements through their official college registrar. The correlation between students' perception towards character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi was examined using the Pearson Correlation analysis.

#### **Population**

The study was conducted at Science-Based Technology Vocational College Chonburi during the academic year 2018. The respondents of the study were 90 students. The respondents were all the students from the second year to third year certificate levels as the Science-Based Technology Vocational College, which offered only 3-year program.



## Research Instrument

### Survey for Students' Perception towards Character Strengths

The research instrument was adopted from the original VIA Survey of Character Strengths which was psychometrically validated personality test that measures an individual's character strengths. The VIA Youth- 96 was derived by selecting from the original 198-item survey the 4 items per scale with the highest corrected item-total correlations. Mean internal consistency has been determined across two samples to be .86 and correlation with life satisfaction to be .36. Correlation with the long form (VIA-Y-198) is estimated at .84 on average across scales. Based on these findings, the VIA Institute recommends this 96-question version as it is more efficient and considered to be as valid as the longer version (Park & Peterson, 2006).

The original questions were arranged in nonsystematic order and about one-third of which are reverse-scored. The items were clustered in 24 subscales, measuring the 24 character strengths in the VIA classification. The scale consisted of 5-point Likert-style items (5- very much like me and 1- not like me at all). The responses for each subscale are averaged to obtain a mean score, with higher numbers reflecting more of the strength (Peterson & Seligman 2004). Scores for some items are calculated by reverse scoring. In this study, the researcher assessed ten character strengths only with 40 questions out of 96 questions from the original.

Table 2 showed the breakdown of the questionnaire components. Each component has corresponding character strengths which has 4 questions. Scores are formed by averaging responses within scales, with higher numbers reflecting more of the strength (Peterson and Seligman, 2004). Some "reasonable reverse-scored items for each of the character strengths,



simply by using not or never in the stems" (Peterson and Seligman, 2004, p. 628). Therefore, statements 3 and 25 in the questionnaire are reversed-scored.

Table 3 shows the score representing students' perception towards character strengths at Science-Based Technology Vocational College, Chonburi.

The researches simplified the twenty four character strengths into ten based on the twenty first century skills. In a published article by The United Nations Educational, Scientific and Cultural Organization or UNSECO, it is reported that some of the skills needed by the students to be successful in the workplace in the twenty first century are open -mindedness or value of diversity, curiosity, creativity, gratitude/ respect, perseverance or resilience, enthusiasm or zest, self- regulation, social skill, teamwork and leadership (Scott, 2015). As the respondents are 15-17 years of age, these competencies and skills are essential to help them succeed.

**Table 1.** Breakdown of Questionnaire Components with the Items

Theory component	Character strengths	Questionnaire Item
Positive Emotion	Perseverance / zest	1-8
Engagement	Self-regulation	9-12
Relationship	Social Intelligence / teamwork / leadership	13-24
Meaning	Gratitude	25-28
Achievement	Creativity / curiosity / open- mindedness	29-40

**Table 2.** Score Representing Students' Perception Towards Character Strengths at Science-Based Technology Vocational College, Chonburi.

Likert-Scale	Score	Scale	Interpretation
Very Much Like Me	5	4.51-5.00	Very High
Mostly Like Me	4	3.51-4.50	High
Somewhat Like Me	3	2.51-3.50	Moderate
A Little Like Me	2	1.51-2.50	Low
Not Like Me At All	1	1.00-1.50	Very Low

### Student Academic Achievement

Science-Based Technology Vocational College, Chonburi used GPA as a measure of students' engagement in learning and willingness to work hard to meet academic standards and expand knowledge. GPA is considered a valid and representative value for academic achievement because it provides a comprehensive look at the students' academic strengths and weaknesses and ability to challenge them. The researcher used the students' GPA scores to represent academic achievement in this study from the official college registrar.

**Table 3.** The Interpretation of GPA Achievement at the College

GPA	Level
3.19-4.00	Very High
2.40-3.19	High
1.60-2.39	Moderate
0.80-1.59	Low
0-0.79	Very Low

### Validity and Reliability of the Instrument

The VIA Inventory of Strengths for Youth (VIA-Youth) was used to determine character strengths in adolescents (Park & Peterson 2006:891–909). The questionnaire is a 96-item, self-report survey of character strengths in youth between the ages of 10 and 17 years and grouped in 24 subscales. The scale consisted of 5-point Likert-style items (5- very much like me and 1- very much unlike me). The reliability of the instrument reported by Park and Peterson (2006) is .70 which was satisfactory. The original survey questionnaire can be completed online, but for this research it was administered in a paper-based.

This research adopted this questionnaire based on the character strengths survey and twenty first century skills and did a pilot study with the 30 students from the first-year level at Science-Based Technology Vocational College, Chonburi. The adopted questionnaire contains 40 questions. A Cronbach's test ran to test the questionnaire of the thirty students. A Cronbach Alpha of .91 in the pilot study indicated a high level of internal consistency of the scale. Thus, the instrument was very reliable for this study.

**Table 4.** Cronbach Alpha of the Questionnaire.

	Park & Peterson's (2006) Study	This Study
Cronbach's alpha	.70	.91

For current study, the researcher ran a Cronbach's test and the resulted a Cronbach Alpha of .91 indicated a high level of internal consistency of the scale, therefore, the instrument was reliable. Then, the questionnaires were distributed to all 90 second and third year students for conducting the study.

## Translation of the Questionnaire

To facilitate the understandings for the Thai students in this study, the researcher decided to conduct in Thai language. The original English version of the questionnaire was translated into Thai language by three experts to ensure that the translation of the questionnaire was correct and precise. The first expert translated the questionnaire into Thai. To validate its correctness, the second expert checked the translated questionnaire and confirmed the validity. The third expert meticulously checked the translation for correction and finalization. Another third party back-translated into English and compared to the original questionnaire and was validated that the contents were true and correct. Appendix C contained the validity forms of the experts for the Thai translated questionnaire.

## Collection of Data

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

The planned process is outlined below:

1. Firstly, the 30 first year students took the paper-based survey questionnaire for a pilot study. The completed questionnaire was collected and then the researcher ran a reliability test of the questionnaire.

2. After the validity of the pilot study was reported among the first year certificate level students, the researcher then administered the questionnaire to the rest of the respondents.
3. All completed questionnaires were collected for data analysis.
4. Finally, the academic achievement which is the GPA of the students were collected from the college registrar for data analysis during March 2018.

### **Data Analysis**

After the data collection, the researcher used the following statistical methods to analyze and interpret the data.

#### **Research Objective 1:**

For the first objective of the study, Mean and Standard Deviation were used to identify the different character strengths of the students at Science-Based Technology Vocational College (Chonburi).

#### **Research Objective 2:**

To determine the students' achievement at Science-Based Technology Vocational College as the second objective, the researcher used the mean and standard deviation as well.

#### **Research Objective 3:**

For the last objective of the study which was to identify the relationship between student's perception towards character strengths and their academic achievement at Science-Based Technology Vocational College (Chonburi), Pearson's product-moment correlation coefficient was used by the researcher.

### Summary of Research Process

Research Objectives	Source of Data or Sample	Data Collection Method	Data Analysis
1. To determine the students' perception towards character strengths among the students at Science-Based Technology Vocational College, Chonburi.	90 2 <sup>nd</sup> and 3 <sup>rd</sup> Students at Science-Based Technology Vocational College Chonburi	Survey Questionnaire	Mean and Standard Deviation
2. To determine the students' academic achievement at Science-Based Technology Vocational College, Chonburi.		School Record	Mean and Standard Deviation
3. To identify the relationship between students' perception towards character strengths and their academic achievement at Science-Based Technology Vocational College (Chonburi).		Survey Questionnaire	Pearson's product- moment correlation coefficient



## CHAPTER IV

### RESEARCH FINDINGS

This chapter presents the statistical analysis of the data and the interpretation of the results.

A total of 90 questionnaires were distributed personally by the researcher. A total of 90 students which is 100% were completed and returned.

The pilot study conducted on 30 first-year students was also completed and returned 100%. The overall reliability of the questionnaire in the pilot study was determined .91 then it was finalized. Only the students' identification number and their levels were indicated in the questionnaires, names were omitted on the instructions part. The results of this study were based on the following research objectives:

1. To determine the students' perception towards character strengths among the students at Science-Based Technology Vocational College, Chonburi.
2. To determine the students' academic achievement at Science-Based Technology Vocational College, Chonburi.
3. To identify the relationship between students' perception towards character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi.

#### **Finding for Research Objective One**

The research objective one was to identify the students' perception towards their own character strengths at Science-Based Technology Vocational College Chonburi, the researcher used the VIA Survey of Character Strengths which is psychometrically validated personality test

that measures an individual's character strengths. The questionnaire has been adopted and contains 40 questions out of 96 questions from the original questionnaire. The data were treated with descriptive statistics to calculate the mean and standard deviations of each question. The results were arranged from lowest mean to the highest.

**Table 5.** Mean and Standard Deviation of Students' Perception Towards Character Strengths

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

Referring to Table 5, the overall mean score of the students' perception towards character strengths among the students at Science-Based Technology Vocational College, Chonburi was 3.67. It was in the range of 3.51-4.50. According to the interpretation scale, the students' perception towards character strengths was "high". Out of the ten character strengths surveyed, perseverance (3.41) and leadership (3.08) scored moderate. While teamwork is interpreted with

the highest mean score of 3.99, seven other character strengths interpreted high with scores ranging from 3.61 – 3.91. It was considered that students' perception towards their character strengths was high.

### Finding for Research Objective Two

Research objective two was to determine the students' academic achievement at Science-Based Technology Vocational College, Chonburi. The researcher used the students' grade point average (GPA) scores for their academic achievement in this study. The GPA scores were obtained from the official college registrar. The research findings were described in the table below:

**Table 6.** Students' Academic Achievement at Science-Based Technology Vocational College, Chonburi (n=90).

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

Based on the interpretation criteria of the GPA achievement at the college, the table above indicated that the overall students' academic achievement which was referred to their grade point average (GPA) was interpreted as very high.

### Finding for Research Objective Three

Research objective three was to identify the relationship between students' perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi.

For the analysis of the third research objective, it was hypothesized that there was a significant relationship between students' perception towards character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi.

After the correlation test of the research objective was completed and found that there was no significant relationship between students' perception towards their own character strengths and their academic achievement, the researcher investigated each subscale further and its relationship to students' academic achievement.

The results of further investigation are described below:

# 1. Character Strengths with Significant Relationship to Academic Achievement

## 1.1. Perseverance and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and Perseverance. With  $r = .28$  and  $p\text{-value} = .01$  the results indicated that there was a positive correlation between the two variables, which was statistically significant. Hence, the researcher rejected the null hypothesis and concluded that there was a significant relationship between GPA and perseverance. The table below describes the relationship.

**Table 7.** *Pearson Correlation Between Students' Perception Towards Perseverance and Their Academic Achievement ( $n=90$ ).*

Student' Academic Achievement (GPA)	Perseverance	
	Pearson Correlation Coefficient	.283**
	Sig. (2-tailed)	.007

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

## 1.2. Leadership and Academic Achievement Relationship

Another character strength that indicated a significant relationship is leadership. A Pearson Correlation was run to determine the relationship between GPA and leadership. With  $r = .25$  and  $p\text{-value} = .02$  the results indicated that there was a positive correlation between the two variables, which was statistically significant. Hence, the researcher rejected the null hypothesis and concluded that there was a significant relationship between GPA and leadership. The table below describes the relationship.

**Table 8.** *Pearson Correlation Between Students' Perception Towards Leadership and Their Academic Achievement ( $n=90$ ).*

Student' Academic Achievement (GPA)	Leadership	
	Pearson Correlation Coefficient	.247**
	Sig. (2-tailed)	.019

\*. Correlation is significant at the 0.05 level (2-tailed).

## 2. Character Strengths Without Significant Relationship to Academic Achievement

### 2.1. Zest and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and Zest. With  $r = -0.03$  and  $p\text{-value} = 0.80$  the results indicated that there was no correlation between the two variables, which was not statistically significant. Hence, the researcher failed to reject the null hypothesis and concluded that there was no significant relationship between GPA and Zest. The table below showed the relationship between GPA and zest.

**Table 9.** *Pearson Correlation Between Students' Perception Towards Zest and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Zest	
	Pearson Correlation Coefficient	-.027
	Sig. (2-tailed)	.804

## 2.2. Self-Regulation and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and self-regulation. With  $r = .06$  and  $p\text{-value} = .59$  the results indicated that there was no correlation between the two variables, which was not statistically significant. Hence, the researcher failed to reject the null hypothesis and concluded that there was no significant relationship between GPA and self-regulation. The table below showed the relationship between GPA and self-regulation.

**Table 10.** *Pearson Correlation Between Students' Perception Towards Self-regulation and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Self-Regulation	
	Pearson Correlation Coefficient	.058
	Sig. (2-tailed)	.592

## 2.3. Social Intelligence and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and social intelligence. With  $r = -.11$  and  $p\text{-value} = .33$  the results indicated that there was no correlation between the two variables, which was not statistically significant. Hence, the researcher failed to



reject the null hypothesis and concluded that there was no significant relationship between GPA and self-regulation. The table below showed the relationship between GPA and social intelligence.

**Table 11.** *Pearson Correlation Between Students' Perception Towards Social Intelligence and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Social Intelligence	
	Pearson Correlation Coefficient	-.105
	Sig. (2-tailed)	.330

#### 2.4. Teamwork and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and teamwork. With  $r = -.07$  and  $p\text{-value} = .52$  the results indicated that there was no correlation between the two variables, which was not statistically significant. Hence, the researcher failed to reject the null hypothesis and concluded that there was no significant relationship between GPA and teamwork. The table below showed the relationship between GPA and teamwork.

**Table 12.** *Pearson Correlation Between Students' Perception Towards Teamwork and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Teamwork	
	Pearson Correlation Coefficient	-.069
	Sig. (2-tailed)	.520

## 2.5. Gratitude and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and gratitude. With  $r = .02$  and  $p\text{-value} = .84$  the results indicated that there was no correlation between the two variables, which was not statistically significant. Hence, the researcher failed to reject the null hypothesis and concluded that there was no significant relationship between GPA and gratitude. The table below showed the relationship between GPA and gratitude.

**Table 13.** *Pearson Correlation Between Students' Perception Towards Gratitude and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Gratitude	
	Pearson Correlation Coefficient	.022
	Sig. (2-tailed)	.835

## 2.6. Creativity and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and creativity. With  $r = -.04$  and  $p\text{-value} = .73$  the results indicated that there was no correlation between the two variables, which was not statistically significant. Hence, the researcher failed to reject the null hypothesis and concluded that there was no significant relationship between GPA and gratitude. The table below showed the relationship between GPA and creativity.

**Table 14.** *Pearson Correlation Between Students' Perception Towards Creativity and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Creativity	
	Pearson Correlation Coefficient	-.037
	Sig. (2-tailed)	.732

## 2.7. Curiosity and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and curiosity. With  $r = .07$  and  $p\text{-value} = .50$  the results indicated that there was no correlation between the two variables, which was not statistically significant. Hence, the researcher failed to reject the null hypothesis and concluded that there was no significant relationship between GPA and curiosity. The table below showed the relationship between GPA and creativity.

**Table 15.** *Pearson Correlation Between Students' Perception Towards Curiosity and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Curiosity	
	Pearson Correlation Coefficient	.073
	Sig. (2-tailed)	.502

## 2.8. Open-Mindedness and Academic Achievement Relationship

A Pearson Correlation was run to determine the relationship between GPA and open-mindedness. With  $r = .13$  and  $p\text{-value} = .23$  the results indicated that there was no correlation between the two variables, which was not statistically significant. Hence, the researcher failed to

reject the null hypothesis and concluded that there was no significant relationship between GPA and open-mindedness. The table below showed the relationship between GPA and open-mindedness.

**Table 16.** *Pearson Correlation Between Students' Perception Towards Open-mindedness and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Open-Mindedness	
	Pearson Correlation Coefficient	.129
	Sig. (2-tailed)	.228

For the total result, the table below contained the data and described the relationship between students' perception towards character strengths and their academic achievement.

**Table 17.** *The Total Result of the Relationship Between Students' Perception Towards Their Own Character Strengths and Their Academic Achievement (n=90).*

Student' Academic Achievement (GPA)	Total Character Strengths	
	Pearson Correlation Coefficient	.129
	Sig. (2-tailed)	.235

**Table 18.** Summary of the Relationship Between Students' Perception Towards Their Own Character Strengths and Their Academic Achievement (n=90).

	Character Strengths	Pearson Correlation Coefficient	Sig. (2-tailed)	Result
1	Perseverance	.283**	.007	Significant
2	Leadership	.247**	.019	Significant
3	Zest	-.027	.804	Not Significant
4	Self-Regulation	.058	.592	Not Significant
5	Social Intelligence	-.105	.330	Not Significant
6	Teamwork	-.069	.520	Not Significant
7	Gratitude	.022	.835	Not Significant
8	Creativity	-.037	.732	Not Significant
9	Curiosity	.073	.502	Not Significant
10	Open-Mindedness	.129	.228	Not Significant
	<b>Total</b>	.129	.235	Not Significant

Since the  $p$  value was .24 which was higher than .05 it was concluded that there was no significant relationship. Although the overall result of the relationship between students' perception towards character strengths and their academic achievement was not significant, two other character strengths like leadership and perseverance have shown significant relationship.

## **CHAPTER V**

### **CONCLUSION, DISCUSSION, AND RECOMMENDATIONS**

The following chapter concludes this research. It presents the summary of the research, findings and interpretations of the data, conclusion and discussion. It also includes recommendations for future researchers on the perception of students towards their character strengths and academic achievement. The first section summarized the overall findings of the study regarding the research objectives and hypothesis. The second section discussed the study's outcomes based on the objectives and hypothesis. While the third section summarized the important findings and results of the study, the fourth section outlines the conclusion. The final section was the recommendations for future research on the perception of students and their academic achievement in Thailand's educational and cultural context.

#### **Summary of the Study**

This research was designed to study the students' perception towards their own character strengths, determine their academic achievement and explore whether there is a significant relationship between their character strengths and academic achievement which is referred to as GPA (grade point average). There were 90 students from two different levels, certificate and diploma levels as respondents of the study. The questionnaires were distributed to measure students' perception toward character strengths. It includes perceptions on perseverance, zest, self-regulation, social intelligence, teamwork, leadership, gratitude, creativity, curiosity and open-mindedness. As to the official grade point average records, it was retrieved from the college registrar to ensure its reliability.



This study had three research objectives as follow:

1. To determine the students' perception towards character strengths among the students at Science-Based Technology Vocational College, Chonburi.
2. To determine the students' academic achievement at Science-Based Technology Vocational College, Chonburi.
3. To identify the relationship between students' perception towards character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi.

The findings suggested that the students' perception towards their own character strengths was between moderate and high based on the scale interpretation. Out of the ten character strengths two scored moderate which were perseverance and leadership while the other eight character strengths scored high which include zest, self-regulation, social intelligence, teamwork, gratitude, creativity, curiosity and open-mindedness. The students' academic achievement in terms of GPA showed a clear indication of a very high score.

In order to determine the relationship between students' perception towards their own character strengths and academic achievement, Pearson correlation test was run. Then, the research hypothesis of this study was concluded that there was no significant relationship between GPA and students' character strengths.

### **Summary of the Findings**

The following were the significant findings observed based on the results:

- 1. Students' perception towards the ten character strengths surveyed among the students at Science-Based Technology Vocational College, Chonburi:**

1.1. Students' perception towards the character strength teamwork was *high*. Also, it had the highest mean score of 3.99.

1.2. The character strength leadership was perceived *moderate* with the lowest mean score, 3.08.

1.3. The total mean score of the character strength perseverance was 3.41, regarded as *moderate*.

1.4. Zest as a character strength scored 3.66 which was perceived *high* among the students at Science-Based Technology Vocational College, Chonburi.

1.5. Students' perception towards self-regulation as a character strength was *high*.

1.6. With regard to the character strength of social intelligence, the total mean score of students' perception was interpreted as *high*.

1.7. Students' perception towards the character strength gratitude was *high*.

1.8. The total mean score of the character strength creativity was 3.41, regarded as *high*.

1.9. The finding on the character strength of curiosity suggested that the students' perception was interpreted as *high*.

1.10. The students' perception towards the character strength of open-mindedness showed *high* interpretation.

1.11. The findings of the total mean score of the ten character strengths was 3.67 and it indicated that students had a *high* perception towards their own character strengths at Science-Based Vocational Technology College, Chonburi.

## 2. Students' Achievement

In examining the students' achievement at Science-Based Technology Vocational College, Chonburi what the researcher found was that the 90 students have a total mean score of

3.30 among their grade point average scores. The overall students' grade point average was interpreted as *very high*.

### **3. The relationship between students' perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College, Chonburi.**

For the analysis of the relationship between students' perception towards their own character strengths and their academic achievement at Science-Based Technology Vocational College, Pearson's product-moment correlation coefficient was used.

With  $r = .13$  and  $p\text{-value} = .24$ , the results indicate that there was no correlation between the two variables, (1) students' perception towards their own character strengths and (2) students' academic achievement which was statistically not significant. Hence, the researcher rejected the null hypothesis and conclude that there was no significant relationship between students' perception towards their own character strengths and their academic achievement. Though the overall score indicated that there was no significant relationship, the researcher also found that two other character strengths, perseverance and leadership, were the major perceived influence on student academic achievement in terms of their grade point average.

### **Conclusion**

The following conclusions were drawn from the data analysis and findings of the study:

This research has adopted the VIA Institute questionnaire on exploring students' perception towards their own character strengths at Science-Based Technology Vocational College, Chonburi. The findings suggested that students had moderate and high perceptions of

their strengths. The strength of teamwork scored the highest while leadership had the lowest. Out of the ten character strengths surveyed, two scored moderate (1) perseverance and (2) leadership while eight strengths were interpreted as high namely zest, self-regulation, social-intelligence, teamwork, gratitude, creativity, curiosity, and open-mindedness.

The students' academic achievement in this study was regarded as their grade point average (GPA). Based on the data analysis and findings it was concluded that students' achievement was *very high*. The researcher concluded that there was no significant relationship between students' perception towards their own character strengths and their academic achievement. However, the perception of students towards perseverance and leadership strengths have emerged to be significantly positive to their academic achievement.

### Discussion

This study provides understanding and explanation of the research problems about the findings of the correlation between students' perception towards their own character strengths and their academic achievement at Science-Based Vocational Technology College, Chonburi. This section of the research provides considerable insights into students' perception, academic achievement and their relationship based on the findings of the study.

The findings of the study confirmed that the students at Science-Based Technology Vocational College, Chonburi had a *high* perception towards their own character strengths particularly on the strengths of zest, self-regulation, social intelligence, teamwork, gratitude, creativity, curiosity and open-mindedness. This demonstrated just how important character strengths are. Though the results confirmed of its high perception, other constructs have scored *moderate* in terms of perception like the strengths of leadership and perseverance. It is

fundamental to note that these two strengths could be improved and scored high because character strengths are dynamic and not fixed (Peterson and Seligman, 2004). This related that the ability to perceive our strengths is largely based on our improvement and maturity.

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

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

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

This study was the first attempt to validate the correlation between the students' perception towards their own character strengths and academic achievement. Taken as a whole, the findings confirm that there is no significant relationship between the students' perception and academic achievement. With a few exceptions, the results showed that some other strengths



have a significant relationship between the students' perception and their GPA. The most striking result to emerge from the data is that leadership and perseverance have a significant relationship to their academic achievements.

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

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

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



As the study offered valuable result on other domains, schools must cultivate other strengths and develop positive institutions because it enables the development of positive relationships and individual traits including characters, which in turn enable positive subjective experiences. People are at their best when all four domains are aligned (Park, & Peterson, 2008a).

### **Recommendations**

Based on the findings of the study, the researcher would like to suggest some recommendations to enable to improve the relationship of students' perception towards their own character strengths and their academic achievement. The following recommendations would help the different stakeholders at the school including the teachers, administrators and future researchers to develop character education program to help to advance the relationship of the science of character strengths in relation to students' academic achievement.

#### **Recommendation for the Teachers**

Though the overall response was negative and the findings of the study did not appear to support the hypothesis that there is a relationship of students' perception towards their own character strengths and their academic achievement, it was evident that the results also suggest that other strengths are significantly correlated like the strengths of perseverance and leadership. These findings suggest the following opportunities for a teacher to know and measure the character strengths of the students to ensure that the students are given the right support in honing his or her strengths not just for life satisfaction, being active but also to be academically achiever. An even greater source of concern was that students were not given much direct

leadership roles and opportunity to persevere, therefore, the researcher would like to suggest to the school teacher to be keen in designing character education program that would encourage to deliberately practice the students their strengths eventually. Teachers can opt for a daily basis intervention of character development and keep a record of their progress in relation to their academic achievement.

### **Recommendation for the Administrators**

As the result confirmed that the strengths of perseverance and leadership predicted student academic achievement in Science-Based Vocational Technology College, school administrators should find more ways on how to develop these character strengths. Administrators should include and design curriculum which provides a platform to cultivate character development. Collaboration among the parents and training for the teachers would be more useful in implementing the program as character development is a concern of all. The researcher believes that strength-based approach would impact the student achievement. On account of the fact that this research was only a preliminary attempt to measure the relationship between students' character strengths and their academic achievement it is worthy to conduct more interventions to encourage the students to develop their own strengths.

### **Recommendation for the future research**

This study might serve as a basis for future studies on Thai students' character strengths. As this research measures character strengths among vocational college students, the researcher recommends to the future researcher to conduct research on other students' levels. On a wider level, a qualitative approach is also needed after the survey to help the students understand the

results of their character strengths survey. The future research should undertake an opportunity to discuss with the students one-on-one about the results. The prospect of being able to do it would serve as an incentive for the future researcher and may use those skills in future research.

Moreover, the limitation on the ten character strengths instead of the original twenty-four would also be more useful in future research for additional data and more comparisons.



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## APPENDIX A

### Questionnaire of the Study- English Version





Student ID: \_\_\_\_\_

Level: \_\_\_\_\_

**Directions:**

This questionnaire has been designed to understand how you perceive character strengths. Please respond to each statement, and ✓ the box that stands for your own situation. The scale consisted of 5-point Likert-style items (5- very much like me and 1- not like me at all). Try not to change your responses after you choose them and be candid with your answers.

	STATEMENT	Very Much Like Me 5	Mostly Like Me 4	Somewhat Like Me 3	A Little Like Me 2	Not Like Me At All 1
1	I complete all of my homework even when many challenges arise.					
2	I am viewed as someone who gets things done.					
3	I don't give less than 100% when I am working on something.					
4	I see myself as a hard worker.					
5	I think that life is very exciting.					
6	I am usually full of energy.					
7	I have a lot of enthusiasm.					
8	I am a cheerful person.					
9	I have a lot of patience.					
10	My temper often gets the best of me.					
11	When I really want to do something right now, I am able to wait.					
12	I am able to control my anger really well.					
13	I am able to steer clear of trouble with others.					
14	I get along well with a variety of people.					

	STATEMENT	Very Much Like Me 5	Mostly Like Me 4	Somewhat Like Me 3	A Little Like Me 2	Not Like Me At All 1
15	I talk and behave appropriately in most social situations.					
16	I often know the right thing to say to make people feel good.					
17	I am a very loyal member of my group/team.					
18	I respect the opinions of my teammates, even when I disagree.					
19	I listen carefully to other group members when our team is making a decision.					
20	I am very cooperative when I work in groups.					
21	I am viewed as the leader when I'm playing with others.					
22	People look up to me as a leader and they give me their trust.					
23	I am good at leading a group to get the job done.					
24	Others want me in charge when a group project needs to be done.					
25	I often don't feel thankful.					
26	I often feel lucky for things in my life.					
27	I am a thankful person.					
28	I am very grateful for my family.					

	STATEMENT	Very Much Like Me 5	Mostly Like Me 4	Somewhat Like Me 3	A Little Like Me 2	Not Like Me At All 1
29	I enjoy creating things that are new and different.					
30	I often figure out different ways of doing things.					
31	I frequently have creative ideas.					
32	I see myself as a very creative person.					
33	I am always interested in discovering more.					
34	I love exploring new and different things.					
35	I frequently ask questions.					
36	I am always full of questions.					
37	I review the positive and negatives of every option when I am making a decision.					
38	I carefully weigh the opinions of others before I make up my mind.					
39	I consider every option before I make a final decision.					
40	I wait until I have all the facts before I make a decision.					

**APPENDIX B****Questionnaire of the Study- Thai Version**

รหัสนักเรียน/นักศึกษา: \_\_\_\_\_

ระดับชั้น: \_\_\_\_\_

## คำชี้แจง:

แบบสอบถามนี้ได้ถูกออกแบบขึ้นมาเพื่อทำความเข้าใจเกี่ยวกับการรับรู้จัดเชิงของผู้ตอบแบบสอบถามทั้งนี้ขอความกรุณาให้ผู้ตอบแบบสอบถามตอบแบบสอบถามนี้ทุกข้อโดยทำเครื่องหมาย✓ลงในช่องที่ตรงกับตัวของผู้ตอบแบบสอบถามมากที่สุดทั้งนี้ขอความกรุณาอย่าเปลี่ยนคำตอบหลังจากที่คุณได้เลือกใส่เครื่องหมายไปแล้วและกรุณาตอบคำถามอย่างตรงไปตรงมาและสอดคล้องกับผู้ตอบมากที่สุด

	รายการ	เหมือนฉันมาก ๕	เหมือนฉันเป็นส่วนใหญ่ ๔	เหมือนฉันอยู่บ้าง ๓	เหมือนฉันเล็กน้อย ๒	ไม่เหมือนฉันเลย ๑
1	ฉันทำการบ้านทั้งหมดให้เสร็จแม่ในยามที่มีความเหนื่อยอย่างมากก็ตาม					
2	ฉันมักถูกมองว่าเป็นคนที่ทำทุกอย่างได้เสร็จตามที่ได้รับมอบหมาย					
3	เมื่อต้องทำอะไรฉันจะทุ่มเทให้งาน ไม่น้อยกว่า 100%					
4	ฉันคิดว่าฉันเป็นคนที่ทำงานหนัก					
5	ฉันคิดว่าชีวิตเป็นเรื่องที่น่าตื่นเต้น					
6	ฉันมักจะเป็นคนที่เต็มไปด้วยพลัง					
7	ฉันเป็นคนที่มีความกระตือรือร้นมาก					
8	ฉันเป็นคนร่าเริง					
9	ฉันเป็นคนที่มีความอดทนอย่างยิ่ง					
10	ฉันมักปล่อยให้อารมณ์ครอบงำการตัดสินใจ					

	รายการ	เหมือน ฉันมาก ๕	เหมือน ฉันเป็น ส่วนใหญ่ ๔	เหมือน ฉันอยู่ บ้าง ๓	เหมือน ฉันเล็ก น้อย ๒	ไม่เหมือน ฉันเลย ๑
11	เวลาที่ฉันอยากทำอะไรมากๆ ในทันที ฉันก็สามารถรอได้					
12	ฉันสามารถควบคุมอารมณ์ ได้ดีมาก					
13	ฉันสามารถหลีกเลี่ยงปัญหา กับคนอื่น ได้					
14	ฉันสามารถเข้ากับคนหลายประเภทได้ เป็นอย่างดี					
15	ฉันสามารถพูดหรือปฏิบัติตัว ได้อย่าง เหมาะสมกับสถานการณ์ทางสังคมต่าง ๆ					
16	ฉันมักจะรู้วิธีที่จะพูด ให้คนอื่นรู้สึกดี					
17	ฉันเป็นสมาชิกที่ซื่อสัตย์ของกลุ่มหรือ ทีม					
18	ฉันเคารพความคิดเห็นของเพื่อนร่วม ทีมอยู่เสมอ แม้แต่ในเวลาที่ฉัน ไม่เห็น ด้วยก็ตาม					
19	ฉันจะตั้งใจฟังสมาชิกคนอื่น ในทีมเมื่อ ทีมกำลังร่วมกันตัดสินใจอะไรบางอย่าง					
20	ฉันให้ความร่วมมืออย่างสูงเมื่อต้องทำ งานเป็นกลุ่ม					

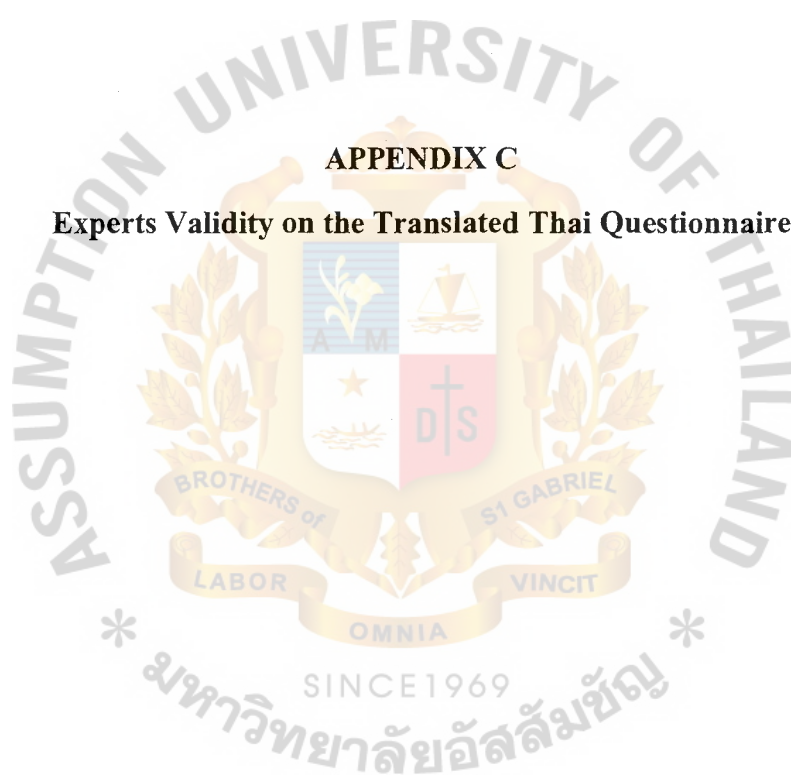


	รายการ	เหมือน ฉันมาก ๆ 5	เหมือน ฉันเป็น ส่วนใหญ่ ๆ 4	เหมือน ฉันอยู่ บ้าง 3	เหมือน ฉันเล็กน้อย 2	ไม่เหมือน ฉันเลย 1
21	ฉันถูกมองว่าเป็นผู้นำเมื่อเล่นสนุกกับคนอื่น					
22	คนมองฉันเป็นผู้นำและยังให้ความไว้วางใจฉัน					
23	ฉันเป็นผู้นำที่ดีของกลุ่มในการที่จะทำงานให้สำเร็จ					
24	คนอื่น ๆ ในกลุ่มต้องการให้ฉันรับผิดชอบงานเมื่อกลุ่มต้องการให้โครงการนั้นสำเร็จ					
25	ฉันมักค่อยรู้สึกพอใจกับอะไรสัก					
26	ฉันรู้ว่าฉันโชคดีกับสิ่งต่าง ๆ ของชีวิตฉัน					
27	ฉันเป็นคนที่ยังพอใจกับอะไรต่างๆ					
28	ฉันรู้สึกสำนึกในบุญคุณของครอบครัวฉันอย่างยิ่ง					
29	ฉันมีความสุขในการสร้างสรรค์สิ่งแปลกใหม่					
30	ฉันมักจะหาวิธีการที่หลากหลายในการทำอะไรรักก็ตาม					

	รายการ	เหมือน ฉันมาก ๆ 5	เหมือน ฉันเป็น ส่วนใหญ่ ๆ 4	เหมือน ฉันอยู่ บ้าง ๆ 3	เหมือน ฉันเล็กน้อย ๆ 2	ไม่เหมือน ฉันเลย ๆ 1
31	ฉันมีความคิดที่สร้างสรรค์บ่อยๆ					
32	ฉันมองว่าตัวฉันเป็นคนที่สร้างสรรค์มาก ๆ คนหนึ่ง					
33	ฉันสนใจที่จะค้นพบสิ่งใหม่ๆ ยิ่งขึ้นไปเสมอ					
34	ฉันรักการค้นหาล้างแปลกใหม่					
35	ฉันตั้งคำถามบ่อยๆ					
36	ฉันมักจะเต็มไปด้วยคำถามต่าง ๆ อยู่เสมอ					
37	ฉันทบทวนข้อดีข้อเสียของทุกตัวเลือกในยามที่ต้องตัดสินใจ					
38	ฉันพิจารณาความคิดเห็นของคนอื่นก่อนที่จะตัดสินใจ					
39	ฉันพิจารณาทุกทางเลือกก่อนตัดสินใจขั้นสุดท้าย					
40	ฉันรอให้ได้ข้อเท็จจริงทุกประการก่อนที่จะตัดสินใจในเรื่องใด					

## APPENDIX C

### Experts Validity on the Translated Thai Questionnaire



## Survey Translation Evidence Form

1. What do you think about the survey translation? Is the translation clear enough and easy to understand?

Most of the items in this questionnaire are understandable and clear. Some of them may need a correction like in number 25: *การให้บริการ* should be *การให้บริการ* but very slightly mistake and overall is acceptable.

2. Is there any Thai phrase or grammar mistake?

Q. Number 25 like being mentioned in question no. 1.

3. Which part of the questionnaire needs to be edited in order to make it clearer? How could the translated survey questionnaire be improved?

Q. Number 25 but it's a slightly mistake and acceptable.

Overall quality is acceptable.

Your Name: Phiyapa Sirinredon, Ph.D.

Position (current/former): Human Relation Officer (Research and Innovation Division)

Mobile Number: +66858109430

E-mail: s-phiyapa@hotmail.com

Signature: *Phiyapa*

Date: 79/9/2018

## Survey Translation Evidence Form

1. What do you think about the survey translation? Is the translation clear enough and easy to understand?

In general, the translation is relatively clear and easy to understand, but some of the translated items stylistically awkward. I think it is partly because the difference in rhetorical (or cultural) styles between English and Thai. See my response to Question#2 as an example.

2. Is there any Thai phrase or grammar mistake?

Item#25 "I often don't feel thankful," can be challenging to translate into Thai as there is no context for a proper interpretation (whether it is used to mean "grateful" or "pleased"). The Thai translation is relatively broad and thus may not be as accurate. But to translate it as "grateful" in Thai, it would require a context as I do not believe there is any corresponding lexical item to carry the exact meaning without adding anything to the sentence.

3. Which part of the questionnaire needs to be edited in order to make it clearer? How could the translated survey questionnaire be improved?

Please refer to my comment above. Ideally, the translated survey questionnaire could be improved by being less of a literal translation of the original and more culturally and linguistically appropriate to the Thai audience, but that would also run the risk of losing the original sense of meaning intended for English-speaking audiences for whom the questionnaire developer intended.

Your Name: Saowanee T. Alexander

Position (current/former): Assistant Professor of Sociolinguistics

Mobile Number: \_\_\_\_\_

E-mail: saowanee.alexander@gmail.com

Signature: \_\_\_\_\_

Date: September 21, 2018

## Survey Translation Evidence Form

1. What do you think about the survey translation? Is the translation clear enough and easy to understand?

Most of the questions in the questionnaire can understand easily. However, I found one question has the wrong position in the sentence but the meaning it's same and can understand in the right meaning as the English version.

2. Is there any Thai phrase or grammar mistake?

No grammar error found in this questionnaire but found a little wrong position, however, it can be understood and not make the sentence meaning mistake.

3. Which part of the questionnaire needs to be edited in order to make it clearer? How could the translated survey questionnaire be improved?

Not need to edit.

Your Name: Mr. Ratchaphon Amsuk

Position (current/former): University Instructor at Department of Public Administration,

Faculty of Humanities and Social Sciences, Valaya Alongkorn Rajabhat University (Under the Royal Patronage)

Mobile Number: 081-8363909

E-mail: ratchaphon@vru.ac.th

Signature: \_\_\_\_\_

Date: September 25, 2018



## BIOGRAPHY

Rhian Estrada Salcedo was born in the southern part of the Philippines. He obtained his bachelor degree in secondary education major in General Science at Mindanao State University-Naawan.

He has been living in Thailand since May of 2010. At present, he works as a project assistant at the Office of Vocational Education Commission under the Ministry of Education. He is a graduate student at the Assumption University majoring in Educational Administration. His interests include leadership, student achievement, educational psychology, classroom management and teaching.



