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FACTORS INFLUENCING THE DECISION OF GRADE 12 STUDENTS TO CONTINUE THEIR HIGHER EDUCATION

Donrudee Suwankiri

A Dissertation Submitted in Partial
Fulfillment of the Requirements for The Degree of
Doctor of Philosophy (Population and Development)
School of Applied Statistics
National Institute of Development and Administration
2007

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ABSTRACT

Title of Dissertation	Factors influencing the decision of grade 12 students to continue their higher education
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The objective of this research is to study Factors influencing the decision of grade 12 students around the country to continue further education. The focus is on the 3 main factors as follows: 1) Factors concerning students' background, which include their gender, age, grade point average, education region, parents' level of education, parents' occupation, and family financial status. 2) Factors concerning student attitudes toward education, which include their attitudes toward the value of education, attitudes toward stability and progress, attitudes toward the people involved in making the decision, attitudes toward recognition and reputation, and attitudes toward social and economic factors. 3) Factors concerning self-acknowledgement by students, which include self-achievement, belief in locus of control, and self-development.

Data in this study was collected from field research, which was completed between December 2003 and March 2004. A total of 431 male students and 785 female students who were studying in grade 12, semester 2 of the education year 2003 were surveyed. This group represents grade 12 students from all around the country. They were randomly selected according to their region, educational region, province, school, and class.

Findings from the research found out that 89.80 percent of the students decide to continue their higher education at university. In the Southern region, 98.80 percent of the students decide to continue their studies, which is the highest number among

other regions. The Northeastern region had the lowest, which was 86.91 percent. Hierarchical Regression Analysis was used to test the 3 factors; students' background, attitudes toward education, and self-acknowledgment. The factors influencing the decision to study further concerning the students' background include region, grade point average, and father's level of education, mother's occupation, and family income. Factors concerning attitudes toward education include attitudes toward the value of education, attitudes toward stability and progress, and attitudes toward social and economic factors. Factors concerning self-acknowledgment did not influence the decision of a student to study further.

When Logistic Regression was used to study the factors influencing the students' decision to study or not study further according to their region, findings showed that the factors influencing the decision of students in the North to study further include attitudes toward people involved in making the decision and self-development. Factors influencing the decision of students in the Northeastern region to study further include grade point average, parent's level of education and family income. Factors influencing the decision of students in the Central, Eastern, and Southern regions to study further include gender, father's level of education, attitudes toward the value of education, and attitudes toward stability and progress. Factors influencing the decision of students in the Central and Eastern regions to study further include grade point average, parents' level of education, attitudes toward the value of education, attitudes toward stability and progress, attitudes toward people involved in making the decision, and attitudes toward recognition and reputation.

The research has provided suggestions from the study. It recommends that there should be a program to encourage, publicize, and create activities especially for people who are involved with the students such as the father, mother, guardian, teachers, friends, and the students themselves to acknowledge the importance of a higher education. The activities must respond to the needs of students and motivate them with regards to the characteristics of the 3 factors; students' background, attitudes toward education, and self-acknowledgment. This is so that each activity can suit the needs of each student in the different regions.

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CHAPTER 1

INTRODUCTION

1.1 Statement of the Problem

Today the streams of globalization and scientific progressions have abruptly created a change in the economics and the society of the country. Thailand is aggressively competing in a globalize world where everything depends on an efficient work force and competent intellectuals. These people need to possess both technical and operational abilities. They are the people who can keep up with the constant changes in the world and are able to adapt new knowledge to use in society effectively. Furthermore, they need to be experienced individuals who always perform their duties at maximum capability.

As a result, there is a high demand for this intellectual workforce. The tendency and the direction of workforce to change from the agriculture sector to the industrial sector is continuing to progress. We find that there is a high rate of growth in the industrial sector; such as a 3.3 percent growth in 1996, 2.7 percent growth in 2001, and 3.3 percent growth in 2006. Consequently, there is a decreasing rate in the agricultural sector. This decrease has been continuing for ten years and has the tendency to persist. The changes are creating challenging problems for the future as the Thai education system will no longer correspond with the changing economic patterns.

When considering and comparing the numbers of Thai students studying further with the numbers in other countries, the number of Thai students studying in high school is considered low, only 55 percent of the total student population study in high school. The proportion of Thai students studying the sciences is 19 percent of the overall student population. This is lower than the proportion in the other developing countries where they promote human development and about 30 percent of their total student population studies the sciences.

Therefore, Thailand needs to reconsider its strategy in competing with other nations and change the focus from structural investments, such as building dams, factories, and machines to improve technology, where there needs to be a workforce with specialties and high education. It is necessary that the country sets a long term plan to improve human resources. Therefore, there needs to be an improvement in the quality of the population, beginning with students entering pre-school to people working and adults after retirement. This will enable human resources to be developed efficiently (Khuer Wongboonsin, 2002: 126) .

The research from the Thai Development Research Institute (TDRI) on drafting a model plan on improving the workforce for industrial education, found some interesting points about Thai education that can help determine its future. The findings showed that the total number of high school students studying in the regular branch, which graduated in 1997, was 220,146 students for the entire country. In the year 2006 the number increased to 373,787 students or went up 69.79 percent, and the number of graduates estimated for the year 2017 is expected to increase gradually. However, it is worrisome that this is an increase of only a small proportion. It is due to the decreasing population of students entering pre-school according to the findings on population estimation.

By comparing the number of high school graduates during the period of the National Development Plan of Economics and Society issue 8 (1997-2001) and issue 9 (2002-2006) , which is a total of 1,175,226 students and 1,630,504 students respectively, it can be seen that during those 5 years, there was an increase in the number of graduates by 455,278 students or 38.74 percent (National Board of Education, 1997: 15) . This is considered a low proportion if compared to the country's economic development and the setting up of an education system, where a population with quality, potential, intellectual skills and knowledge of modern day technology is being created.

When considering the workforce from the university level, in the years between 1997 and 2006, the total number of graduates increased gradually. The graduates are divided into two groups Vocational/Junior degree and Bachelor's degree

or higher. In 1997, the total number of graduates from both groups was 275,833 students. This number increased to 486,579 students in 2006; an increase of 192,745 students or 69.88 percent. If considering only the group of Bachelor's degree or higher, the proportion of graduates is higher than the university level as a whole. In 1997, the total number of graduates with Bachelor degrees or higher was 139,480 students and in the year 2006, the number increased to 246,478 students or a rise of 76.71 percent.

An interesting point from the result of the research showed that the proportion of graduates with Bachelor degrees or higher in Social Studies and Humanities is 77.6 percent of the total number of all graduates with Bachelor degrees or higher. In 2006, this proportion decreased to 66.80 percent, which means that the proportion of graduates in Science and Technology is only 33.20 percent. This proportion is not enough to fulfill the demand of the country's labor market where industry and technology are the central powers to drive the country's economy forward.

Education adjustments need to go hand-in-hand with the structure of the country's economic improvement, to build a system that creates intellectuals with specialty and ability to keep up with technology in the globalize world. This counts as the most important task for competing in today's world. Therefore, it is necessary to set up a policy and change the methods in handling education to quickly gain benefits from it. Also, the way to solve the problem is to increase the number of students studying Science and Technology in university.

From the information of undergraduates studying in public universities, the result showed that the total number of newly enrolled students in the academic years 1997 to 2001 was 1,506,939 students; 398,175 students came from universities that limited the number of acceptance, 1,083,853 students came from universities that did not limit the number of acceptance, and 24,911 students came from universities under controled supervision.

An interesting finding is seen in the details of the number of students entering university from the years 1997-2001. In 1997, 258,939 students entered university, which was a 10.15 percent increase from the years 1997-1998. The trends show: 2.98

percent increase from 1998-1999, 7.56 percent increase from 1999-2000, and 5.88 percent increase from 2000-2001. The number of students entering in the years 2000-2001 decreased 4.27 percent when compared to the years 1997-1998. (Details shown in Figure 1.1)

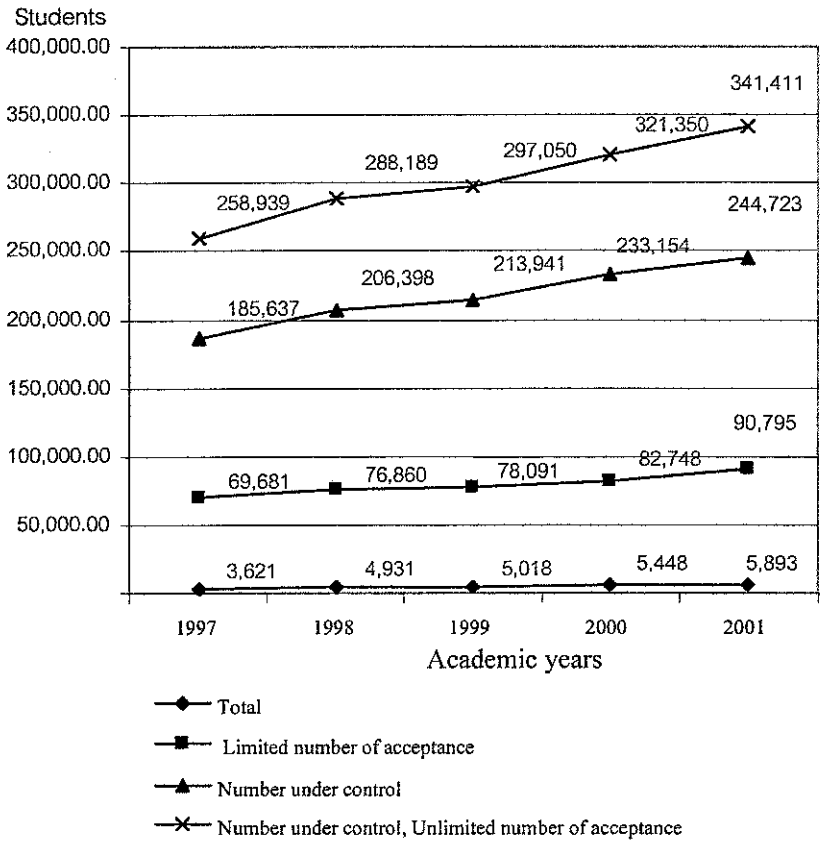

Figure 1. 1 Numbers of Newly Enrolled Undergraduate Students Classified by the Types of University

Source: National Board of Education,1997: 13.

The following conditions signal that there needs to be an immediate increase in the number of students entering university. However, to increase the number of students, it is necessary to understand factors influencing decisions by grade 12

students to study further. Students from different regions will have different reasons for continuing or not continuing their higher education. It will depend on the environment, whether it is developed or underdeveloped, the characteristics of the region, whether it is an urban or rural area, and the population's social and economic status as well as their income. For example, in areas located next to Bangkok or other urbanized regions where there are advances in technology and economy, students have a greater opportunity to receive news and information as well as reports on education from various sources, and have higher chances of studying at reputable institutions compared to students who live in areas far away from the city or the centers of education.

Besides the environment determining the decision of students to study further, research has been done on the desire of students to continue their education and found that factors relating to the students' background, which included gender, grade point average, parents' level of education and occupation, as well as factors relating to attitudes toward education, self-achievement, belief in locus of control, and self-development, all influence their decision to study further.

The research has focused on the comparison between student backgrounds, attitudes toward education, and self-acknowledgement of students in the different regions. Findings from this research can be used to create policies that will help improve the learning environment to suit the motivation and desire to study of students in each education region. This will lead to an increase in the number of students continuing their education at university. The increased number of graduates will be able to respond to the demands of the labor market, and become the driving force to develop the country in the future.

1.2 Research Objectives

To study the characteristics of the students' background, attitudes toward education and self-acknowledgment that influence the decision of grade 12 students to

continue higher education, by comparing the differences between factors in each region of the country.

1.3 Scope of the Study

This study was carried out by the research methods of documentary study and field study. Questionnaires were used in interviews.

The population target was the students studying in 12th grade from the 12 education regions around the country set up by the Ministry of Education. The study was conducted in the year 2003 using a total of 1,216 sample groups.

1.4 Benefits of the Study

To understand the characteristics of the students' background, attitudes toward education and self-acknowledgment, that influence the decision of grade 12 students from each region around the country to continue their higher education. The findings can be used to create policies to encourage students to have positive attitudes and motivation, which respond to their needs. This can eventually result in an increase in the number of university students who will become very important to the future development of the country.

CHAPTER 2

LITERATURE REVIEW

This chapter examines literature related to the research. It contains five parts. The first part reviews concepts about Thailand's education of the population and labor ratio consisting of Thai labor as a whole, estimation of labor according to educational levels and production sectors. The second part deals with the theory of self-concept determining education consisting of the meaning, causes of self-concept towards education, etc. The third part investigates the concept and theory of self-development determining further education, consisting of factors affecting development of one's potential, goal of self-development in terms of education, etc. The fourth part examines concepts and theories about self-achievement, and the fifth part reviews concepts about belief in locus of control. All factors affect students' decision to further their studies.

2.1 Concepts about Thailand's Education of the Population and Labor Ratio

2.1.1 Thai Labor as a National Whole

Thailand has already entered severe competition in the age of globalization which requires labor of high skill or labor with higher-education background. Thai labor must be competent, technically and practically, to meet social needs efficiently. The survey on employment of the population in February 2003 (National Statistical Office, 2003) found that the national population number was 63.8 million, 33.96 million of which were of labor age. 32.81 million were in employment (18.41 million being males, 14.4 million females) and 780,000 were unemployed. The average Thai laborer has had rather low education; 38.33% of employed labor had below primary education and 3.45% had no education at all (National Statistical Office, 2002) ; 23.19% finished primary education; 13.32% finished lower secondary education;

9.68% finished upper secondary education; and 11.59% finished higher education. By comparison, the survey in the same quarter of 2001 showed that 39.6% of the employed labor had below primary education; 3.43% had no education at all; 22.62% finished primary education; 12.83% finished lower secondary education; 9.97% finished upper secondary education; and 11.24% finished higher education.

2.1.2 Estimation of Labor according to Education and Production Sectors

From the above-mentioned scenario of Thai labor it can be seen that Thailand needs a strong policy for human resource development (HRD) , to raise its population's education to a higher standard in order to meet economic growth (in the industrial sector particularly) and technological advances. The estimation of the population for the years 2000-2025 by Office of the National Economic and Social Development Board (NESDB, 2003: 6) as shown in Table 2.1, shows the number of those in labor age (15 years old and over) , those with and without employment, and the percentage of contribution to the workforce according to sex for the period 2003-2025. Table 2.1 shows percentage of contribution to the workforce according to sex and as a whole. The data show that the percentage of contribution to the total workforce has been on a slightly decreasing trend during the said period (2003-2025) due to the decrease in the percentage of female contribution to the workforce, a larger decrease than the percentage to male contribution which shows an increasing trend. The percentage of female contribution to the workforce tends to decrease because the number of female labor-age population increases at a slower rate than the number of female population aged 15 and over (A slower increase of the fraction than the divisor leads to the decreasing rate) . In other words, women live longer but cannot work in accordance with their longer life, partly probably they are forced out of employment or they voluntarily leave employment due to unfavorable physical condition. So the fraction (the number of female labor-age population) increases at a slower rate than the divisor (the number of female labor-age population increases at a slower rate than the number of female population aged 15 and over) .

Table 2. 1 The Number of Labor And The Percentage of Contribution to the Workforce According to Sex, 2003-2025.

Year Total	Population aged > = 15	No. of those employed aged > = 15	% of contribution to the workforce	No. of those unemployed
2003	48,660,633	35,701,452	73.37	12,959,181
2005	49,894,371	36,594,020	73.34	13,300,351
2010	52,795,521	38,594,020	73.34	13,300,351
2015	55,138,731	40,305,763	73.10	14,832,968
2020	57,366,460	41,752,852	72.78	15,613,608
2025	59,309,508	43,207,028	72.85	16,102,408
Male				
2003	23,625,049	19,290,856	81.65	4,334,193
2005	24,212,579	19,795,526	81.76	4,417,053
2010	25,588,216	20,943,675	81.85	4,644,541
2015	26,700,666	21,940,831	82.17	4,759,835
2020	27,744,180	22,795,425	82.16	4,948,755
2025	28,668,471	23,637,111	82.45	5,031,360
Female				
2003	25,035,584	16,410,597	65.55	8,624,987
2005	25,681,.792	16,798,494	65.41	8,883,298
2010	27,207,305	17,653,490	64.89	9,553,815
2015	28,438,065	18,364,932	64.58	10,073,133
2020	29,622,280	18,957,426	64.00	10,664,854
2025	30,641,034	19,569,917	63.87	11,071,120

Source: Office of the National Economic and Social Development Board, 2003: 28.

Regarding the number of the employed population classified by age, the data in Table 2.2 shows that the total number of those of all age groups tended to increase from 2003 up to 2025. Those in the age group of 25-54 increase in number during 2003-2015 and begin to decrease in number during 2015-2025. Those belonging to the age group of 15-24 tend to decrease in number, while those 55 years old and over tend to increase in number during 2003-2025. It can be interpreted from the data then that the increase in the total number of the employed population of all age groups will be due to the increase in the number of those 55 years old and over, because those of the other age groups tend to decrease. This hard fact implies that the future labor-age population, which tends to decrease in number, will need higher productivity to

support the old-aged population that will not only live longer but also get higher in number.

Table 2. 2 Number of Employed Population Classified by Sex and Age, 2003-2025

Age group	Male	Female	Total
2003			
< 25	314,667	2,358,418	5,504,084
25-54	13,634,965	12,195,484	25,830,450
> 54	2,510,224	1,856,695	4,366,918
Total	19,290,856	16,410,597	35,701,452
2005			
< 25	3,091,581	2,225,038	5,316,619
25-54	13,958,984	12,497,050	26,456,033
> 54	2,744,962	2,076,406	4,821,368
Total	19,795,526	16,798,494	36,594,020
2010			
< 25	2,950,174	1,892,656	4,842,831
25-54	14,514,990	12,967,200	27,763,443
> 54	3,478,510	2,793,633	6,272,144
Total	20,943,675	17,653,490	38,597,164
2015			
< 25	3,145,667	2,358,418	5,504,045
25-54	13,634,965	12,195,484	25,830,450
> 54	2,510,224	1,856,695	4,366,918
Total	19,290,856	16,410,597	35,701,452
2020			
< 25	2,505,488	1,199,987	3,705,445
25-54	14,775,603	12,969,082	27,744,685
> 54	5,514,334	4,788,387	10,302,721
Total	22,795,425	18,957,426	41,752,852
2025			
< 25	2,382,554	1,003,728	3,386,282
25-54	14,571,350	12,627,193	27,198,544
> 54	6,683,207	5,938,996	12,622,203
Total	**23,637,111**	**19,569,917**	**43,207,028**

Source: Office of the National Economic and Social Development Board, 2003: 32.

Table 2.3 show the number of labor classified by education. It can be seen that the largest percentage of labor in 2003, 2005 and 2010 finished below primary education, while that in 2015, 2020 and 2025 finished primary education.

Estimation of labor and the national population's education shows that, on the whole, Thailand's labor force at present has rather low education. That is to say 12,705,444 of them had below primary education, while only 4,735,267 of them finished higher education. It is estimated that in 2025 there will be 11,946,743 of them who finish primary education and only 9,924,654 of them who finish higher education. So Thailand needs a paradigm shift in its educational policy to keep abreast of economic and social changes and dynamism, domestically and globally, which demand labor with knowledge, capability and skill in technology and practice in industrial and service sectors

Table 2. 3 Number of Labor Classified by Education

Education	2003	2005	2010	2015	2020	2025
1. None	1,156,727	1,105,139	953,350	773,871	572,014	354,298
2. Below primary education	13,516,570	12,705,444	10,367,198	7,658,095	4,651,268	1,417,191
3. Primary education	8,168,492	8,533,725	9,417,708	10,269,908	11,093,733	11,946,743
4. Lower secondary education	4,748,293	5,064,612	5,866,769	6,674,634	7,482,111	8,330,315
5. Upper secondary education	2,656,188	3,183,680	4,569,904	6,041,834	7,569,792	9,194,456
6. Vocational education & technical education	1,167,437	1,240,537	1,420,376	1,600,139	1,778,671	1,965,920
7. Higher education	4,266,324	4,735,267	5,967,122	7,238,915	8,546,809	9,924,654
8. Others	21,421	25,616	34,737	48,367	58,454	73,452
Total	**35,701,452**	**36,594,020**	**38,597,164**	**40,305,763**	**41,752,852**	**43,207,028**

Source: Office of the National Economic and Social Development Board, 2003: 28.

Table 2.4 showing abilities, skills, and future prospects of Thai labor, which are divided into 4 groups: graduate group, first year undergraduate group, vocational/junior college group, and 9th grade group. The highest number of labor comes from the middle school group. The government should set a policy to adjust the Thai education system to be able to produce graduates with the knowledge of complicated and global skills to accompany the rapid growth and changes in technology, industry, communication, and services in various sectors.

Table 2. 4 Desirable Capability, Skill and Attitude of the Future Thai Labor

A. Capability & Skill	**Group 1 Graduates**	**Group 2 1st yr. students**	**Group 3 Vocational / Higher vocational students**	**Group 4 M.S.3 students**
1. Thai (listening, speaking reading & writing)	Very good communication (summary, analysis, synthesis & comment)	Good communication (summary, analysis, synthesis & comment)	Being able to communication at work	Being able to communication at work
2. English/Other languages (listening, speaking reading & writing)	Using English as a means in doing research & in everyday life	Using English as a means in acquiring knowledge & in everyday life	Being able to follow directions & to read work manual	Basic communication
3. Computer & IT	Using a complicated program in working & doing research	Using a program in searching data & doing research	Using a program in Working	Using a simple program
4. Data analysis/ Research methodology	Analysis of data for problem solving & innovation	Analysis of data according to theory	Analysis of data for performance	Logical thinking
5. Mathematics	Presentation with mathematical data a statistics	Data processing, calculation & presentation of data with statistics	Calculation of more complicated nature	Calculation of basic nature

Table 2. 4 (Continued)

A. Capability & Skill	Group 1 Graduates	Group 2 1st yr. students	Group 3 Vocational / Higher vocational students	Group 4 M.S.3 students
6. Universal thinking (Thinking based on data & sound judgment)	Using inter-national standard with one's work Understandin g cultural differences	Thinking in the universal way Understandin g cultural differences	Using data in decision making Understanding cultural differences	Thinking based on data Understanding cultural differences
7. Management	Using teamwork Having leadership & being able to manage organization Capable of problem solving	Using teamwork & being able to manage organization Capable of problem solving	Using teamwork & being able to manage cluster activities Capable of problem solving	Using teamwork & being able to manage one's own activities Capable of problem solving
8. Initiation	Doing research to achieve innovation	Using knowledge to create new ideas	Designing new ways of working for higher efficiency	Developing work for higher performance
9. Competitivenes s	Equal to that of Singapore's graduates	Equal to that of Singapore's students	Equal to the skill of Malaysia's labor	Equal to the skill of Malaysia's labor

Source: Office of the National Economic and Social Development Board, 2003: 41-42.

It is undeniable that education is very important since one needs knowledge and intensive training for a certain period to gain effective practice to qualify as a special its in a profession. However, in addition to the increase in the number of students, another important factor which needs close attention is the students themselves who want to enter higher education. Their decision making to further their study is the determinant of both quantity and quality of education, and is a profound

and complicated process composed of various factors involving the students, their family and society. Analysis will thus be made accordingly as follows:

2.2 The Theory of Self-Concept Determining Education

The education and learning capability of the population of a country are the most important factors in effecting national competitive advantage in terms of economic and social development. Better education will help increase the population's potential and capability for competition and coping with changes. Higher education, in particular, is much needed for expansion and its development can be geared in the most desirable direction.

However, to succeed in expanding higher education, many factors are to be taken into consideration such as environment, personal aspects, motivation and educational adaptation best suited to changing conditions. Once these factors have seriously been dealt with, expansion of higher education will very likely achieve success.

The study of factors determining higher education cannot do without the theory of 'self-concept', which is very important in that it provides us with an understanding of the concept of realization of one's own value, belief in locus of control, self-development in all respects, etc. So self-concept is necessary for the study of factors determining higher education.

2.2.1 Meaning of 'Self-Concept'

The meaning of self-concept has been given by many academics. Riem Srithong (2002: 108-109) explains self-concept as the feeling of one's own image spiritually, physically, intellectually and socially, all formed and developed out of interaction with other people and the result of one's action or ability. An individual will form his physical image in the first place in relation to external appearance and the image seen by others. His mental image is formed out of his thinking, sensation, feeling and personal ability to adapt to the environment.

Some academics define that self-concept means how a person understands and realizes about themselves based on his past experiences and interaction with other people, which affect his behavior, habit and personality (Hurlock, 1975: 234) . Allport (1974: 76) gives his view that self-concept is the realization of oneself in relation to the structure of personality and dynamism of their traits, which become their habits or usual actions, expressed differently through behavior such as neatness, selfishness, etc.

From the above-mentioned review of the meaning of self-concept it may be concluded that self-concept means an individual's perception of oneself in all respects, whether they be spiritual, physical, intellectual, knowledge, competence, personality or posture aspect resulting from upbringing, interaction with other people, observation and perception of other people's reaction to himself, and behavioral expressions deemed appropriate to such and such situations.

Self-perception is therefore a critical factor affecting higher education. Students who have good self-perception in terms of intelligence, knowledge, perseverance, and interest in knowledge seeking tend to further their study in higher education. Factors causing self-concept should thus be studied. Atkinson studied such factors and found that self-concept results from four important factors. (Atkinson,1964: 57)

2.2.2 Causes of Self-Concept towards Education

2.2.2.1 Communication and Interaction with Other People In everyday life one meets a lot of people with different personalities and habits. Some have attractive appearances giving a pleasant feeling to those meeting or interacting with them, while others have opposite appearances that people do not want to deal or interact with. The feelings of like or dislike result from various components such as mannerism, the way of dressing, the way of conversation, personality, mood, life philosophy, values, knowledge, attitude, and interest or attention. All these are composed together to form an individual's particular identity. Students interacting with such individuals can perceive and, once they admire or are impressed by them,

they will accept them as a model to follow their example, or just select and combine desirable characters of those individuals they interact with to form into one's own self-concept (Bloom, 1971: 122-123) .

In terms of education, particularly, once students have an interaction with individuals taken as a model who give good advices or opinions on education, they will agree with them and see the value and benefits of education. This will then lead to their decision to further their education. The very fact agrees with the study of Nuanchawee Wisarnsirikul (1995: Abstract) , which found that contact or interaction with other people and following other people's expectations are important factors causing motivation to further one's education.

It can be seen that a reference group or people involved are very important in that they are like a mirror, reflecting a student's individuality and are the model giving motivation to the student to behave in such a way as to acquire the mentioned factors affecting education, which include family and peers. These are primary groups since they are closest to the student contributing to the formation of his behavior and discipline, giving him expectations and encouraging him in his strong will to fulfill those expectations. A conclusion here is that a student's further education depends on upbringing, urging and strong determination or need of his parents.

The finding of Atchara Wongwattanamongkhol (1990: 40) agrees with that of Urai Manman (1996: 84) which reveals that M.S.3 students who wished to further their study in the vocational stream and ordinary stream depended on their parents. If their parents wanted them to further their study, the students would follow their advice. The research by Natthawuth Naowapradit (2000: 72) focusing on students' decision to further their study after finishing compulsory education, in Nakhon Srithammarat, found that the students' fathers' education, family size, peer groups and parents' opinions towards further education all contributed to their decision on further education. Surat Chaiyachompoo (1992: 8) studied factors related to students' intention to further their study in secondary education in the Eastern Seaboard Study Project Area It was found that students who got a high grade had a

high intention to further their study and showed greater educational behavior than those with lower performance. Influences of their parents, senior relatives, teachers and friends were also an important factor.

In addition to interaction with other people, which directly affects self-concept towards further education, comparison of oneself with others is another important factor.

2.2.2.2 Comparison of Oneself with Others Self-concept of individuals can change along with time, knowledge and environment. An individual will observe and consider personality and traits of those close to them or with whom he interacts. The person then compares themselves with others in some respects and tries to adapt themselves to be best suited to such, to such situations and environments and to people close to them, particularly parents. A person will develop their personality, traits, and capability in comparison with those of their parents. Evidence to prove this is the fact that parents with high education or high economic and social status usually have children with a high tendency to have high education.

Perron (1965: 165) carried out his study on careers of families in relation to opportunities for further education. He found that fathers doing desk jobs tended to have children who furthered their study in secondary education, while children from middle class labor families and lower class labor families had a higher opportunity to further their study than those from agricultural families. These findings agreed with those in the research of Heathers (1977: 87) who studied expectations and planning for further education. He found that students whose fathers' careers concerned scholastic nature were often also involved in the circle of similar nature and their expectations were to follow their fathers' lead, while those whose fathers' careers did not concern scholastic nature hoped to follow their fathers' footstep.

Laskin's research (1980: 90) studied components affecting education and selection of careers of students. He found that their parents' careers had the greatest influence over the selection of their careers. Similarly, Menison's research (1980: 198) also found that students whose parents came from rural areas and worked as craftmen tended to further their study in commercial or technical schools, while 65

percent of the students whose parents worked in high professions had a chance to finish their education.

2.2.2.3 Self-Concept and Self-Assessment Man begins to sense other people's feelings since childhood. He begins to learn rules set by adults or those having influence over them through receiving praise or punishment and as such can distinguish actions that please or satisfy others from those that anger or dissatisfy them. He will then remember such behaviors to form his own character and learn to form self-concept from reactions of people around him.

Theories of perception of feedback were varied. An interesting one is that of Alexander and Simmon (1975: 187-188) who found that children's behaviors are formed out of socialization and instilling of values, attitude and relationship of their role to people around them. Practice of knowledge and skills are also an important factor. They gradually learn such things and form them as their behaviors. Their parents encourage them by giving them rewards or praise, positive support or motivation, when they behave in the way expected by their parents and society. This will then encourage them to do what their parents expect them to Desirable behaviors include self-achievement, belief in locus of control, capability of moral reasoning, etc.

The research by Melone (1987: 145) found that knowledge, capability, inspiration, personal background and returns effected differences in a persons' academic and work performance, depending on motivation and feedback from those superior to them.

2.2.2.4 Observation of One's Feelings and Behavior An individual's behavior is expressed according to one's observation. They must have their own thinking about their life's goal and their strong and weak points supporting and hindering their achieving the goal. Those who observe themselves usually have a better chance to develop themselves towards success than those who do not, particularly in terms of education. Roger (1970: 123) says that observation helps to perceive oneself as one sees: what kind of person are they, who are they, how competent are they, etc. Generally people perceive themselves in many aspects, and observation and self-perception will then have their effect on success achievement.

The study by Akkarachit Thikathipsakul (1987: 76) on graduate students' motives found that knowing their aptitude and selecting their favorite field which could be put into practical use would make them happy to study with their utmost devotion leading to their achievement.

2.2.3 Self-Concept Development in Education

An important component for understanding oneself and other people is self-concept. Psychologists interested in 'self' believe that every behavior expressed by individuals is the result of self-concept. Anastasi (1967: 66) gives an opinion that self-concept development is the expression and formation of one's framework of thinking, based on exposure to and assessment of one's experiences and is one's reaction to situations in his life. Smith, (1997: 89) says that self-concept is the perception and assessment of one's attributes and capability, developed out of social experiences and interaction with other people having influence over him, and one's successes and failures. Self-concept keeps on developing until the end of one's life. A person's self-concept is developed out of various factors, namely:

2.2.3.1 Self-Concept Caused by Perception A person's concept is obtained from the perception of the image of one's self, which will then gradually extend to cover one's self-concept. During one's teens self-concept is dynamic due to various changes leading to problems, obstacles and conflicts, which then determine values and attitude that are parts of a person to be developed towards adult-hood. Particularly, if attitude towards education is positive, being convinced of benefits of education, a person will be inclined to acquire knowledge continuously throughout their life.

Development of self-concept usually goes along with the belief system, which refers to the feeling deep-rooted in one's subconscious about whether one can do something or not; mental syntax, which refers to the pattern of using formative thinking (consciousness) including thinking method, expression of language and words and arrangement of one's mental-dialogue, etc.; and physiology, which refers to patterns of physical movement including breathing, toning, facial expression

(countenance) , manners, etc. The study conducted by Maxwells (Hilgard and Atkinson, 1976: 88) , using secondary-school students as the sample, found that successful students usually possessed good personality. Having one's power over others could help achieve one's social status, self-recognition, responsibility, following others' actions and being one's own self. All this agreed with the research by Myer (1965: 102) , which found that successful female students got a higher personality score than those unsuccessful one's in terms of self-recognition, following other successful people and being one's own self. In addition, Rogers (1970: 321) emphasizes that a person's self-recognition arises out of agreement between the view of real self and that of ideal self. A similar or slightly different perception of real self and ideal self will lead towards better adaptation.

2.2.3.2 Important Person Determining Self-Concept As one adopts an important person's practice it will determine self-concept. The result of reaction between the person and others helps learn the likes or dislikes, acceptance or rejection, success or failure, and is honored or receives contempt. One's perception does not always match the real condition as the saying has it, 'The map is not the territory'. This is mainly because a person perceives things happening around according to their mental maps based on their own memory, particularly that of their parents. People respond to different situations according to their perception process and mental maps. The pattern of the mental maps is based on benefits, values, attitude, form of language expression, and memories deep rooted in the sub-conscious. To cause any behavioral changes, including the change towards desirable educational behavior, therefore, it is necessary to begin with causing changes in whatever lies in one's mind first.

2.2.3.3 Self-concept usually extends beyond personal matters. For example a father wants his children to succeed in education and tries to instill a good attitude in them, and his love and warmth he gives them will nurture a good attitude towards education in their mind. A person's positive self-concept is the result of obtaining the feedback from an environment providing satisfaction, happiness and valuable living. Once a person's success is achieved, it will enhance self-confidence

and a good attitude, and help strengthen such a behavior in contrast, a person feeling the lack of something tends to know no adequacy, have negative self-concept and feel the lack of security.

2.2.3.4 A person's self-concept helps enhance their behavior towards choosing what they see according to their perception framework and eliminate what does not agree with the framework. Man has a great innate potential. The question is how to put it into best use, for the individual and for others. So one needs to know how to control the pattern of self-communication through the thinking process, speech and action in order to form creative behavior in doing things in life. One then can also apply this concept to educational behavior very well.

2.2.4 The Theory of Self Symbolic with the Decision-Making in Further Education

To develop oneself or one's educational potential one should possess self-concept or understand self-symbol in order to make sure which field of study one is interested in or is ready for further education. This will then lead to setting one's goal to study at a higher level. So once the self-symbol concept is understood it will be easy to analyze further education. To understand a person's self-symbol one needs knowledge about personality structure which can be analyzed into the following aspects.

2.2.4.1 Distinguished Personality Structure Allport (1974: 347) believes that most people possess a personality structure that can be shown through 5-10 distinguished characteristics. They also possess supplementary personality, e.g. some people who are fond of knowledge seeking often wish to further their study while, at the same time, they are not confident of their capability. Some are fond of mathematical numbers but are not fond of languages or communication. Each person will express his particular characteristics or unique personality structure reflecting his life behavior. If a learner or person possesses a knowledge-seeking personality it will be very likely that they will make a decision to further their education and succeed, especially when the field of study is their favorite one.

The research by Jarrach (1971: 56) found that parents' I.Q., physical capability and influence, as well as personal interest, are factors motivating a students' decision to further their education. Russell (1969: 87) found in his research that factors affecting students' further education in physical education are love, aptitude and interest in the subject.

2.2.4.2 Environment-Induced Personality Structure This includes parents' socio-economic status that influences students' lifestyle, belief, values, attitude, opinion expression, habits and educational attitude. This explanation has been supported by many researches. The study by Nuanchawee Wisarnsirikul (1995: 98) found that sex, age and marital status are the factors motivating students' education and increment of experience and knowledge in occupational training. The study by Siri Srinuanfuta (1992: 56) found that average grade point of M.S. 6 students, father's occupation, including civil service, hired labor, trade and agriculture, as well as mother's education contributed to the students' success in entrance examination.

In terms of research abroad, Christopher (1971: 104) studied opportunities to further education in college and university and found that students from urban schools, with a good environment, had a better chance to enter college than those from rural schools with a poorer environment, Those who studied in a good college had a better chance to further their study than those who studied in a poorer college. In addition, socio-economic status is another important factor. Litchfield (1966: 206) conducted his study on students' decision to further their education and found that students, from families with an average economic status, tended to further their education at a higher level than those from families with a poorer economic status. He also found that by comparison, students, with an average economic status tended to show a higher percentage to further their education, than those with a poorer economic status who accounted for a high number. Moreover, the research by Laskin (1980: 89) also confirmed that components affecting education were parents' occupation and family income.

2.2.4.3 Upbringing-Induced Personality Structure Self-concept of an individual usually occurs at the age of 4-6 when, according to Freud (1930: 456) , a child begins to be aware and form his permanent behavior whether to be a person interested in knowledge seeking or in education. Allport (1974: 243) has his opinion that a child begins to be aware of, or understand, his own habits from reaction of people around him. Such awareness can be positive or negative, depending on rewarding or punishment by his parents. If, for example, the child is expected to be good at schooling, or to have educational achievement, his parents need to give him a positive feeling by saying words of praise or giving him a reward when he has made a good grade. This concept agrees with the research conducted by Gough (1980: 76) who studied relationship of achievement in studying mathematics. He found that positive relationship with the awareness of the cause of success, was due to parents' capability and attempt to effect their child's success. Those students who failed in their education, mean-while, believed that it was because of their fate.

In addition, children also develop their personality towards relationship with others by adapting personalities of people they meet, or who are around them, to be their own. This development is a lifelong process that adapts ideals, habits and beliefs as parts for improving oneself on a continuous basis. The research by Siri Srinuanfuta (1992: 60) studied variables which differentiated students who succeeded in taking Chiangmai University entrance examination in Northern Thailand from those who did not. It was found that the successful students usually shared new knowledge among family members. So it is obvious that the success in schooling or further education depends on students' interaction with their family and its support for educational values.

It can be seen that the family is an important factor for students in their decision to further their education because they will absorb experiences and information through their upbringing and from their surroundings, which will then affect their adaptation which forms into their habits. Some have achievement motive, hopes and need of success in various aspects, while some spend their life indulging in pleasure and fun. One's self-concept is formed out of surrounding people's feedback.

In terms of the M.S. 6 students' decision on further education, therefore, surrounding people and upbringing, or socialization, are very important factors that can be efficiently used in analyzing and predicting further education.

2.3 Concept and Theory of Self-development Determining Further Education

2.3.1 The Meaning of Self-development

Apart from self-concept which influences one's decision on further education, self-development is another factor affecting one's growth and progress in education. Those who wish to further their education also usually show their self-development behavior. Phisit Sarawijit (1986: 89) says that self-development means development of one's qualifications, integrity, habits, attitude, capability, skill, knowledge, thinking and understanding to help make himself a person with happiness, progress and completeness, and being useful to himself, society, the country and the work place. McClelland (1976: 15) is another academic who has the view that a person's learning and accumulation of knowledge or experiences can be evidence for proving that he gradually grows up and eventually becomes individual development.

Self-development is, hence, a matter of motivating development of one's physical, mental and personal characteristics, especially intelligence to the fullest of one's potential. Techniques and activities can be found to help increase efficiency of one's intelligence. Furthering education seems to be the main technique popularly used in increasing this capability. In other words, those who want to develop themselves usually want to develop their education too.

2.3.2 The Causes of Self-development

To understand the objective and process of self-development, we should understand factors or causes that make a person feel the need to develop as follows:

2.3.2.1 People want to develop themselves since every single person thinks that they are inferior. Alschuler (1973: 166) views that every person has inferiority feelings. These feelings of deficiency or inequality arise out of comparison

of one's image, capability, intelligence, socio-economic status and physical illness with others, which then makes them aware of their weaknesses and inferiority by birth or after birth.

Man often wishes to be perfect. Weaknesses and inferiority make man try to overcome what are against his internal desire and become a motive driving to strive for better things rendering a meaningful and valuable way of life, or, in other words, for superiority.

Man usually wants to have a few or more outstanding points, e.g. achievement of highest education, which has been recognized as a basic factor that makes one's life perfect along with food, clothing, sheltering and medicine. As the value of education is generally accepted, everyone needs and acquires education.

2.3.2.2 People want to develop themselves due to the fact that everyone has anxiety. Freud (1930: 342) believed that anxiety is what man cannot avoid since various needs in life cannot always be met. So dissatisfaction of unmet needs accumulates in the conscious and subconscious mind, leading to the feeling of insecurity and anxiety about things. The degree or intensity of such feelings varies according to each person's past experience.

Besides, people are often worried about the fear of being unable to control their instinct. They fear, for example, that they will make others understand that they are aggressive, fond of using force, non-sympathetic, selfish, etc. Some, therefore, often try to pose an image of one with a good mind, good spirits and helpful to conceal their true feelings. Man also has anxiety about doing things immoral, against socialization or good conscience. So, man builds defense mechanism to prevent or avoid stress caused by frustration and anxiety, with a complicated and subtle strategy to draw thinking or feeling out of internal conflict or whatever disturbs the mind.

Defense mechanism can take many forms. Among them is repression of frustration, which then changes into the subconscious in the forms of dreams or deep-rooted memories, or reaction formation to hide his anxiety or stress.

Another form of defense mechanism is displacement. This refers to the way in which a person tries to select actions valuable to, or benefiting, themselves and others, especially the decision to further and achieve highest education according to his potential This is because education makes man complete in every aspect in terms of mentality, intelligence and knowledge for performing one's job and solving everyday-life problems. Displacement effects favorable social changes and leads to evolution of human civilization, modernization, development of one's potential and the use of one's capability to do things creatively in order to replace or eliminate one's stress and anxiety caused by unmet needs.

2.3.2.3 People want to develop themselves since they want a balanced personality. Man often has mental conflicts concerning weighing things up before taking action over small as well as big matters, for example judging right or wrong, good or bad, value accreditation, etc. A person will take action by basing judgment on experience though in some cases results are not always the same and can be positive or negative. This, hence, leads to inconsistent actions or imbalanced personality though, in fact, man needs a balanced working of the mind.

However, people in general can only occasionally achieve a balanced personality. Adams (1964: 276-279) views that the working of this inconsistent personality system leads to conflicts, confusion and stress such that people possess a confused personality. So they need adaptation of personality which can take many forms, e.g. repression which means keeping unmet needs in the subconscious. Once such repression outweighs the working of the conscience, unreasonable behaviors will manifest themselves out of the subconscious.

Sublimation, in addition, is what refers to the need of academic excellence and high education which is a method of self-development. It urges people to try to get to the truth of life, upgrade their mind and show behaviors that are superior to automatic responses according to innate instinct. Educational sublimation enables man to adapt personality to a balanced status, and once the whole process has been complete, will be able to reach the core of personality the self, which is the center of a person's different aspects well combined. Few people can get to the core

of personality that is secure and does not vary along with confusing and dynamic situations and environment.

2.3.2.4 People want to develop themselves along with hierarchical needs. Maslow (1954: 122) said that every man has motivation behind their behaviors. This motivation has five steps, from the lowest to the highest Step 1 refers to physiological needs; Step 2, safety needs; Step 3, belongingness and love needs; Step 4, esteem needs from oneself and others; and Step 5, self-actualized needs.

At Step 4 one's need to achieve the highest education according to potential is very important. However, one cannot skip any step; one has to achieve needs step by step. So if one wants to achieve educational recognition, they must achieve economic status to sufficiently support educational expenses. If one cannot yet achieve Step 1, it will be difficult to achieve high education. There are many researches supporting this fact. One was conducted by Urai Manman (1996: 84) who studied factors related to M.S. 3 students' decision to further their education, a case study of Nakhon Pathom Province. It was found that the students' families' economic status had a great influence over further education.

Litchfield (1966: 206) studied students' decision to further their education by taking an entrance examination. He found that students whose families had an average economic status tended to succeed in furthering their education more than those whose families with a poor economic status. It can be seen that economic status had a direct relationship to the higher level of education. This finding corresponded to that in the study by Christopher (1971: 71) , which showed that students from families with a poor income who could further their education in private universities, constituted a smaller number than those from families with a high income. Similarly, students from families with a high and average income who could further their education in universities constituted a higher number than those from families with a poor income. This indicates that family income has an important effect on the type of institution where students choose to further their education.

Holland (1965: 348) analyzed factors affecting educational expectations of two groups of population, i.e. higher secondary education students in

private and public schools. He found that family income affected their decision to further their education in universities. The study by Osborne (1963: 98-99) found that family income was the indicator of family economic status, which, in turn, was the social environment influencing students' education opportunities. Now family income is an important factor affecting expectations for children's career. Students from families with a high income and good economic status will have a very good opportunity to get more financial support for education than those from families with a poor income.

In addition, the research by Atchara Wongwattanamongkhol (1990: 89) investigating graduate students' further education for their master degree at Srinakharintarawirot University, found that those who furthered their education were mostly young, had had high stress at work, had a very good attitude towards further education and had a fairly high socio-economic status. In contrast, those people with low working security status often did not further their education; however, if they were encouraged by people around them, they tended to further their education.

In addition to parents' economic status and income which affect students' decision on further education, their high-income career and good social status also contributed to students' decision on further education. The study by Sermsri Suanpairin (1989: 80) , on the selection of fields areas of study at universities by M.S. 6 students in Bangkok, found that students whose parents were employers or business owners had a greater chance of passing an entrance examination than students whose parents were not employers or business owners. Students from agricultural families, in particular, had the least chance of getting into university.

Reputation and honor are also other important factors. Darkenwald and Merrian (1982: 145) studied reasons and motivations for further education of adults about to take their education and found that the need for knowledge, privacy, better performance, peer community, conformity, etc. Once they proceed from stage 4 to stage 5 (self-actualized needs) , man's highest goal which refers to the stage of highest self-development, whereby they will try to develop their potential to realize their true ability and the aim of being as mankind.

2.3.3 The Goal of Self-development in Education

Researches found that most students who decided to further their education had had good educational achievement, gaining a high average grade. Olarinoly (1979: 56) found in his research that students' average grade for higher secondary education had a relationship to their entrance examination. This agreed with the research by Williams (1970: 56) who found that students with a high educational achievement also had expectations for high education. Adair (1989: 89) studied students' expectation for education and their decision on further education. They found that educational achievement had direct effect on students' educational expectation, while sex and school influence had no statistical significance in relation to their educational expectation. The study by Backman et al. (1974: 65) and that by Bandura (1977: 581) obtained similar findings that educational achievement had direct effect on students' decision on further education.

Apart from their good educational record students who wish to further their education also had responsibility, self-discipline and courage to do or make a decision. They were also good life planners and had a goal of self-development. The goal or objective of self-development according to the concept can be classified as follows (Sanguan Suthilertarun, 2002: 78) .

2.3.3.1 To increase knowledge and thinking is very necessary for youths in the new millennium. They need to prepare for self-development in terms of learning foreign languages, information technology, physical state and various subjects necessary for their career, theoretically and practically.

2.3.3.2 To increase skills and expertise People who have been developed will accumulate skills and expertise that are valuable and agreeable to their thinking.

2.3.3.3 To develop and change attitude and emotional quotient (EQ) . People who have been developed will develop and change their attitude and behavior from the negative to the positive side. They will be able to control their temper, which will then make them good-spirited, ready to make sacrifices, generous, respectful to

others, and less selfish. They will try to apply knowledge, capability and wisdom gained from education to the creation of things useful to others.

2.3.4 The Step of Self-development in Education

As people have a target of self-development in education, the principle of self-development is the important to help them achieve it. Mackinson (1979: 365) said that people learning through accumulation of knowledge or experiences can be treated as their gradual growth, and this will eventually become their individual development. Miller, in addition, viewed that people often learn by doing and using skills and capabilities which give them experiences and lessons for next actions. People also tend to further their education because they think learning helps them achieve a better future. Some occasionally further their education when the learning process is enjoyable and satisfactory. However, their success or achievement depends on the degree of their satisfaction or intention to learn.

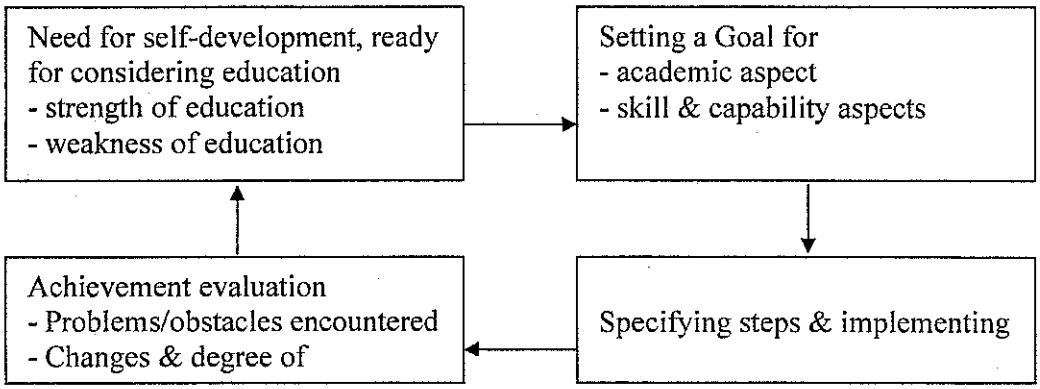

Figure 2. 1 Steps of Self-development in Education

Source: Adapted from Pranee Ramasutra and Chamras Duangsuwan's Cycle of Self-development, 2002: 124

2.3.5 The Steps of Self-development in Education

Step 1 People feel the need and necessity for self-development or improvement in education. They must see the importance and benefits of education,

wanting to be well-educated and fond of knowledge seeking. They must also set their goal of being excellent in their own specific academic area of interest.

Step 2 People must make a self-analysis to find out their strong and weak points in education by judging from their average grades, advices from their parents and teachers, and observation of their own skills, talent and capabilities. This will lead to self-development in terms of better academic knowledge and true capabilities so that they can truly learn with their love and gift for the very subject, which will then lead to their sustainable success in education.

Step 3 Planning and setting the goals, one being the main academic goal and the other being the skill goal. The former needs an analysis to find out one's academic aptitude, knowledge-seeking mind without sticking to one's old knowledge; the latter, meanwhile, must agree with one's true needs filled with one's motivation to achieve what one wants. One must have endeavor, perseverance, responsibility and creativity to turn one's gift into distinction.

Step 4 Implementing what has been planned. One must create an enjoyable learning atmosphere and be aware of educational values. What has been learnt must be put into use in real situations so that goals can be satisfactorily achieved. However, implementation steps can be adapted to best suit habits and aptitude.

Step 5 Educational evaluations. Two aspects need to be evaluated, firstly achievement evaluation based on scores obtained from each subject and average score, especially scores from subjects to be used in applying to faculties or for carrying on one's career in the future, Secondly evaluation of problems and obstacles in achieving one's goals, which can often take place, together with the finding of the main causes leading to failure in achieving the goals.

The factor of self-development in education is very important for urging one to make a decision on further education. There is still another factor often mentioned or referred to in many researches on education being-self-achievement in education.

2.4 Self-achievement in Education

The attention to education is each individual's mental and behavioral basis resulting from experiences through upbringing and environment. Some students are successful both in life and education. They are the ones who are ready to brave situations of any kind, good or bad. They can evaluate each situation very well, are creative and ready to learn and absorb information. They are ready to apply their knowledge for the best benefits to their life. They are confident of their thinking and actions, have their ideal in leading their life and strong convictions. People with such attributes are the ones who possess high self-achievement.

2.4.1 The Meaning of Self-achievement

Scholars have given many meanings or definitions to self-achievement. McClelland (1976: 143) gave a meaning as a person's wish to do something successfully with high standard and this may involve problems about uncertainly. They will, however, be able to achieve success by using intelligence, capability and perseverance. Alschuler (1973: 87) gave his view that self-achievement is the competition for particular excellence which needs planning and quality practice to do things better and faster to achieve the highest efficiency. Murray (1986: 45) explained that self-achievement means a person's wish to do his job with utmost capability, which needs management of personnel, materials and budget to achieve performance of excellent standard.

In conclusion, self-achievement means a person's strong wish to overcome obstacles and reach a goal with a performance of excellent standard.

As regards self-achievement in education, Atkinson (1964: 76) explained that a person's self-achievement cannot be clearly noticed until performance has been proved or evaluated by comparing it with the standard. If it meets or is above the standard, that means success. For example, a student who receives high scores for a certain consecutive period and tries to maintain high or even higher scores is treated as the one with self-achievement in education.

Devito (1976: 87) studied self-achievement, which affects the prediction of Grade 3 students' achievement in education, and found that self-achievement had statistically significance and could also be effectively used in relationship with the students' average scores to forecast their performance. Similarly, Wallach and Kogan (1965: 65) studied important attributes and components contributing to achievement in education and found that female students had components that support their education, namely intention, self-achievement and attention to knowledge searching and efficient arrangement for education.

In addition, the research on relationship between self-assessment and self-achievement in education by Vipha Pattaramai (1989: 54) found that those with self-achievement had expectations, high self-assessment and a strong wish to further education. Pimpirasu Siyangnok (1997: 71) studied psycho-social factors involving self-achievement in education. She found that students with high self-achievement had higher self-achievement in education than those with low self-achievement, and students with good mental health had higher self-achievement in education than those with poor mental health. In addition, students who had appropriate friends had higher self-achievement in education than those who had inappropriate friends. Aree Rangsinan (1989: Abstract) studied self-achievement and educational capability among female students by keeping intelligence as control variable. She found that those with high intelligence possessed a working process of higher capability than male students.

2.4.2 The Causes of Self Achievement

A person with self achievement usually seeks opportunities and methods that lead to success in their goal. The learners with self achievement usually have principle and have the desire to study further to the highest level possible. Opportunity for education depends on assisting environments and factors such as money, parents' encouragement and support, and educational funds. However the intention to study further or the level of self achievement depends on the following 3 factors:

2.4.2.1 Expectation of learners: This means learners set their purpose of study, realize their ability to succeed and use the methods they believe are efficient to achieve their goal. These learners will analyze and consider their qualifications, potentials, and the surrounding environment, that can provide them the chance to achieve success or at least anticipate the chance to succeed rather than fail. This corresponds with Vipha Pattaramai's research (1989: 98) on the relationship between success in mathematics and the various factors that self achievement relates positively with. It is also knowing that success comes from endeavor and concentration, together with having the understanding that failure is the result of the lack of hard work, bad luck, and work difficulty beyond one's ability.

2.4.2.2 Learner's incentive is when learners become satisfied when knowing they are successful in education, or became proud that they are a person with abilities, good qualifications, and the potential to study at the same level as others or higher. Self achievement is high or low depending on level of success in education. Various educational researches have been done that confirm the tempting conditions of students. Such research would be from Simmon (1977: 76) , which is a study, on the comparisons between the self achievement in male high school students to their high and low scores. The person who scores 60 percent or higher will have higher achievement than students who score 40 percent or lower. This shows that a person that achieves higher scores will have a higher self achievement level than students with lower scores. Students with high, medium, or low scores have different self achievement level based on the statistics level of 0.1.

Moreover, it also corresponds to Piraoh Iamsuree's research (1995: 89) on motivations of teaching Thai language, which found out that creating an active classroom environment, creating interesting experience-related study plan, and organizing fun educational activities will boost students' interests. When students have an outer motivation, inner motivation will follow. This will make students achieve success in learning. The motivations will be used as a stimulator for students to be ready to learn and acquire knowledge.

The characteristics of motivation in education are based on the expectations toward success, as well as knowing the easy and difficult parts of learning and comparing it to the ability to learn them. If learners think that some subjects are too difficult but are not beyond their ability, then they will expect to succeed and will have higher level of self achievement. But if learners evaluate that they can not attain good scores in the subjects, it will lower the level of self achievement and they will lean toward failure in education, along with increasing their tendency of not studying further at a higher level.

2.4.2.3 Student's motivation means inducement or inner power that arouses learners to possess behaviors that lead to educational success. There are two kinds of inducement which are:

1) Positive inducement means an environment, a situation or a behavior of a person that acts as a driving force to make learners happy and satisfied such as receiving compliments, getting good grades, getting accepted into the desired university, etc. This will make learners have a positive attitude towards education and adjust themselves to building a good character that will help lead them to educational success, which will affect the decision to study in higher level in the future. This corresponds to Christopher's studies (1971: 104) which found out that creating motivation will help kids become interested, concentrate better, and make them diligent when learning, working, and doing activities related to education that uses their abilities and skills. This will make them succeed in learning, have good behavior, and act in an appropriate way for example being disciplined and enjoy studying.

2) Negative inducement means the condition where learners are not satisfied and wants to avoid for example being punished, being scolded for failure in learning, getting lower scores than expected, etc. When learners do not want to face uneasiness, stress, and pain from things that are undesired, it will create a driving force to concentrate and the perseverance to succeed in education to avoid the undesired failure. This is similar to Sucha and Somchai Juntame's research (Nuanchawee Wisarnsirikul, 1995: 89) which found out that motivation is one of the

important factors that create power in a person, to make them act or not act in a certain way which can determine their ability to succeed and reach their expected goals.

2.4.3 The Characteristic of Self Achievement Person

The factor that pushes learners to pursue higher education is their character. This is an important factor that enables them to analyze or predict the tendency to study further. Learners with self achievement have distinct characteristics and various behaviors.

2.4.3.1 A person with inspiration is a person with high self achievement. The goals they set goal come from their inspiration and they will be determined to find ways to reach that goal. This group of people possesses perseverance, effort, and happiness to make that hope or dream come true. This corresponds with Best's research (1983: 78) , which found out that the adults who study further have the purpose of increasing self-potential, knowledge, and specialty in the area of study. Learners expect to use the obtained knowledge in daily life. The characteristics of these learners are that they like to take part in activities, enjoy the learning environment, like to express their opinion, always making friends and get pleasure when socializing.

2.4.3.2 A person with perseverance: Education both inside and outside the system is a factor that creates long term development of intelligence. Learners, then, require a characteristic of endurance and effort, together with fierce determination, to be able to go through obstacles both directly and indirectly related to education. This corresponds to Brockner and Guare's research (1983: 367) on the relationships between self achievement and failure. The research found out that a person with low self achievement and high fear of failure will dedicate themselves towards a profession they have a low chance in succeeding. On the contrary, a person with high self achievement who has less fear for failure are less likely to accept a profession they have low chance in succeeding.

Hynes and Massie's research (1971: 165) on the relationship between educational self achievement of Agriculture students in Korea, found out that self achievement of students relate to the success in every subject of Agriculture, especially scores in the agriculture subject highly relate to self achievement than other non-agriculture subjects. Self achievement and quick-wit can predict success in learning.

2.4.3.3 A person who sets hopes on education, even though the success depends on external factors, is a person who lives life with understanding and has a character of being optimistic, and believes in self-ability and self-potential. They would set high goals for education and try to study to the highest level possible. This corresponds to Tiamchan Chatukanyaprateep's research (1980: 87) on the relationship between self achievement and success in mathematics. The result was that there is a positive relation to the understanding of the reason for success- that it came from ability and effort. However there is a negative relation for accepting the reasons of success as luck.

2.4.3.4 A person who values education and has high self-achievement is a person who has vision for education. They will realize the meaning and the value of knowledge and use that knowledge efficiently in real life. This is similar to Darkenwald and Merrian's research (1982: 321) on the reasons for motivation to study further in adults that are attending school or are currently studying. The research found out that the factors for motivation that affect studying further include: the need to acquire knowledge, personal desires, the intention to use knowledge to improve duty, cultural practices, etc.

2.4.3.5 A person with self-discipline is person with self-achievement whose work is filled with quality. They will strategize and operate a task with full responsibility, ability and discipline. Each task is carried out until the end. They have high endurance especially with jobs that require a long time work and are of great difficulty. They will be determined to finish the job without giving up. This corresponds to Steweart's research (1981: 99) which found out that a person high self-

achievement will work their full ability and concentrate only on one work. They will also be a motivation for others to put more effort in their work.

2.4.3.6 A person who is able to predict future events is a person who has self-achievement and sees the usefulness of education and knows that education is an important part of the future. They will then be determined to set a direction in education for themselves that matches their potential and adjust themselves to the stream of changes in events and news in the present time, and use education as a tool to enhance their social standard.

Apart from self-achievement being an important factor to determine students to study further, another important factor is the belief in locus of control.

2.5 Concept of Belief In Locus of Control in Education

Education is a long term process for building up knowledge. The ways to obtain knowledge are complicated and require the development in intelligence, skills, and abilities as well as experiences in obstacles and knowing how to implement knowledge earned to real life situations. For learners to achieve success, it requires goals to be set, self-achievement, realization of one's own abilities and potential, and believing in oneself.

2.5.1 The Meaning of the Belief in Locus of Control

The meaning of the belief in locus of control according to the opinions of Seleh (1986: 123) is that a person who believes in locus of control is a person who has positive viewpoint about themselves and believes in the experiences they encountered. They will believe that success depends on themselves and not others. They will also have satisfaction in their potential and are able to solve problems on their own. They are people with freedom of thoughts and are not attached to just one idea or attached to another person.

It could be said that a person who believes in locus of control for education will believe that one can achieve success in the highest level of education possible, and that success depends on self-potential and not on others or any external factors.

Furthermore, Branden (1969: 345) commented that a person who believes in locus of control is a person who realizes and believes in the worth of self ability and tries to find and create educational opportunities for themselves. They will have goals, principles, and efforts in achieving success whether it is succeeding in duty or schoolwork. They based their belief on how every success comes from one's abilities and potential, and that success does not need help from others. These people have a positive view of themselves and have a tendency to solve problems well. Ahmad and Abert (1984: 189) commented that a person who believes in locus of control is a person who believes that whatever is achieved, desired or not, is the result of one's own action, and whether one succeeds or fails is not up to external factors but is up to one's intelligence, ability, and effort.

From the gathering of various studies, it can be concluded that a person who believes in locus of control in education is a person who believes and realizes that their potential and ability can enable them to achieve success in education. They are ready to face problems or situations along the way in order to succeed without seeking help or depending on external factors for support.

2.5.2 The Causes of Belief in Locus of Control in Education

For a person to believe in locus of control and are able to express it out verbally or through action as well as by interacting with others, intellectuals and researchers have studied the factors creating this kind of belief and behavior. Olarinoly (1979: 187) explained that the common characteristic of the belief in locus of control is that it comes from a social learning theory, which states that the belief in locus of control is the result of personal learning. The way a person decides to behave depends upon the return or the benefits received from that behavior. The person will judge whether that behavior brings satisfactory or dissatisfactory results. So if the person gains benefits and is satisfied, there would be a high tendency to continue to

possess that behavior. When the behavior is being encouraged because it creates usefulness to oneself or to others, a feeling of fulfilling will occur and the value of oneself would be recognized, thus the belief in locus of control will be acknowledged.

A clearer understanding of the learner's behavior can happen as a result of knowing the factors that create motivation. If learners set goals, become enthusiastic, are perseverance to attain high scores, or are taking tests to move to a higher level of education, and the outcomes are as well as expected, it will make learners believe in the locus of control. This will expand into an effort to continue to improve oneself thus urging them to possess a good character needed for success in learning. They will learn to use their knowledge, skills, abilities, and adapt them in a useful way. This corresponds to Mackinson's research (1979: 67-68) on the relationship between brain capability and success in education of high school students. The study found out that the belief in locus of control and self achievement relates positively to success in education. In addition, self achievement relates positively to brain capability. This further corresponds to Darkenwald and Merrian's studies (1982: 129) on self achievement and the belief in locus of control in education of adults that are applying to university or are currently studying. The research found out that the motivation to study further depends on the needs for progression and a strong belief in locus of control.

Similarly to Hynes and Massie's research (1971: 98) on the motivation and belief in locus of control of a person who is applying to university and is currently studying. The research found out that a person who is applying to university have their set goals and is a person who believes in the locus of control, who feels the need to improve self-potential and the need to gain more knowledge and professional skills by hoping to make use of them in daily life. This is comparable to Laskin's research (1980: 95) on confidence and self-control of students. The research was done by setting up an experiment where the students and teachers were put into a learning environment where the belief of locus of control is dominant. The aim was to see how they responded to the situation. The result showed that students with high belief in locus of control will succeed in education.

Besides the incentive that encourages or influences the belief in locus of control, if unclear instructions are given and the person cannot predict the consequences of their behavior, the person may become confused and lose hope in the ability of oneself. This would then turn into a belief in external locus of control. This will make the person attach their thoughts, beliefs, and hopes to external factors, environment, and other people. They will lose confidence and will not see the value in themselves. They will no longer have endurance and effort in making success in work and education. They will believe that accomplishment and failure do not come from the ability or potential of oneself but from others.

Furthermore, Bandura (1977: 345) stated that the belief in locus of control comes from self acknowledgement which occurs during the development of childhood (refer to figure 2.5) . Children will acquire knowledge through various learning environments as well as through curiosity and yearn for improvement in their intelligence. If children learn, memorize, and enjoy studying, they will possess a good attitude toward education.

Therefore, the nurturing and instructing of a child from family and school greatly influence their learning behavior, especially through awards and appropriate punishment, by which the child will react to well. They will be able to control their thoughts, actions, and start behaving in a way that brings success in education. It will also build a belief in locus of control. This is true with Anusorn Sakalku's research (1987: 54) , which found out that the first home to instill a person on the belief in external or internal locus of control is the instruction from parents, guardians, or close relatives. If the child receives an award or a punishment, it will affect their ability to control themselves when it comes to education and living a normal life.

Thus if the child receives support to improve their skills and ability effectively, it will create in them a belief in locus of control, which will affect their education in a higher level and success in the long term education.

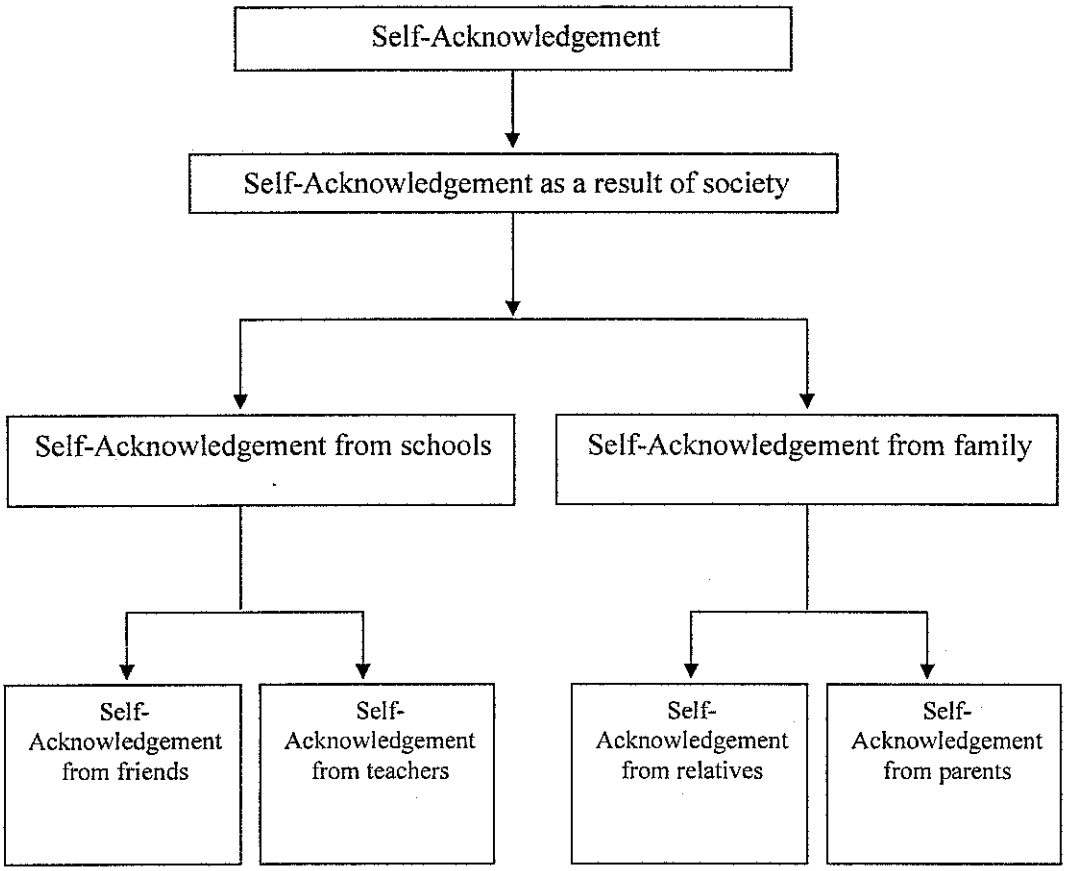

Figure 2. 2 Self-Acknowledgment as a Factor for Creating the Belief in Locus of Control

Source: Baron and Paullus,1991: 342.

2.5.3 Belief in Locus of Control Leads to Self Esteem

Seeing the value of self is an important power in life necessary for carrying out activities and businesses. Branden's studies (1969: 89) on psychology of self esteem commented that by acknowledging the value of self together with realizing self-efficacy and self-respect, found that a person who realizes self-efficacy at a high level will believe they can accomplish any task. However, those who realize their self-efficacy at a lower level will be filled with worries and doubts in whatever activities they do. Realizing your self-efficacy influences the level of enthusiasm and

likelihood of backing down. Bandura (1977: 67-68) saw that realizing self –efficacy makes a person possess self-belief, which will increase the tendency of them acting on their own belief more often. A person who lacks self-belief will let others take advantage and hurt them verbally or physically.

Seeing the value of self affects working behavior. As Ringer stated, workers who have low self value have the tendency to interact with others with more difficulty than those with high self value, thus making the level of production decrease. Brockner and Gaure (1983: 80) found out that it is possible to expect that the students who see their self-value will know that success depends on one's character, such as from ability and skill. These students will see failures as a result of external factors. For students who do not value self will think that success depends on external factors such as luck, and failure is the result of internal factors such as the lack of ability or skills. The characteristics of a person who does not value self are:

2.5.3.1 A person who went through disappointments or failure in life usually 'program' both positive and negative attitudes of others toward themselves inside their subconscious mind under the hopes and failures. This may push them to reach their goal. However, if the person sees only failure, they will move toward failure eventually.

2.5.3.2 A person who has the tendency to let external factors take control is a person who does not value themselves and believes that external environment determined the failures in life. These people will not try to choose or hold responsibilities for things that happen. They will be fixed on blaming others. Even when they are successful, they will believe it was good luck rather than the result of their ability or skills.

2.5.3.3 A person who lacks human relations is a person who does not value their self. They will have malicious feelings, disrespect others, and go against others to save face (Baron and Paulus, 1991: 98) . This description corresponds with Laskin's opinions (1980: 130) , which believed that a person with malicious intent is not likely to value self. Their emotions can greatly influence their actions, causing a

balancing mechanism. Balancing mechanism is when a person lacks self-value and creates an unbalanced feeling thus causing the person to feel hateful and angry.

2.5.3.4 A person with the tendency to possess a destructive personality is a person who when seeing someone they do not like will not be nice to them. It is common to see that these people will have low self value and have a high tendency for failure. The characteristics of a person who values self are as follow:

1) They are people with future, who do not attach themselves with mistakes or failures in the past. They are able to learn from mistakes without attachment.

2) They are people who are able to take care of problems or obstacles without being depressed or angry.

3) They are people who are able to manage things appropriately. These people are able to maintain positive interactions with others. They know that using negative emotions will not make them build a good relation even though they know it is hard to suppress anger and jealously, but still it is manageable for them.

4) They are people who are able to give and receive help from others.

5) They are people who are able to accept others for who they are and for their ability.

6) They are people who have self-belief, who take and receive amity without pondering, worrying, and who are able to talk about themselves.

However, the level of acknowledging self-value can be changed by altering self-image. This is done by understanding who we are and what we do, and slowly continuing to improve ourselves by setting goals and talking positively about ourselves as in Figure 2.3 on Examining self-image.

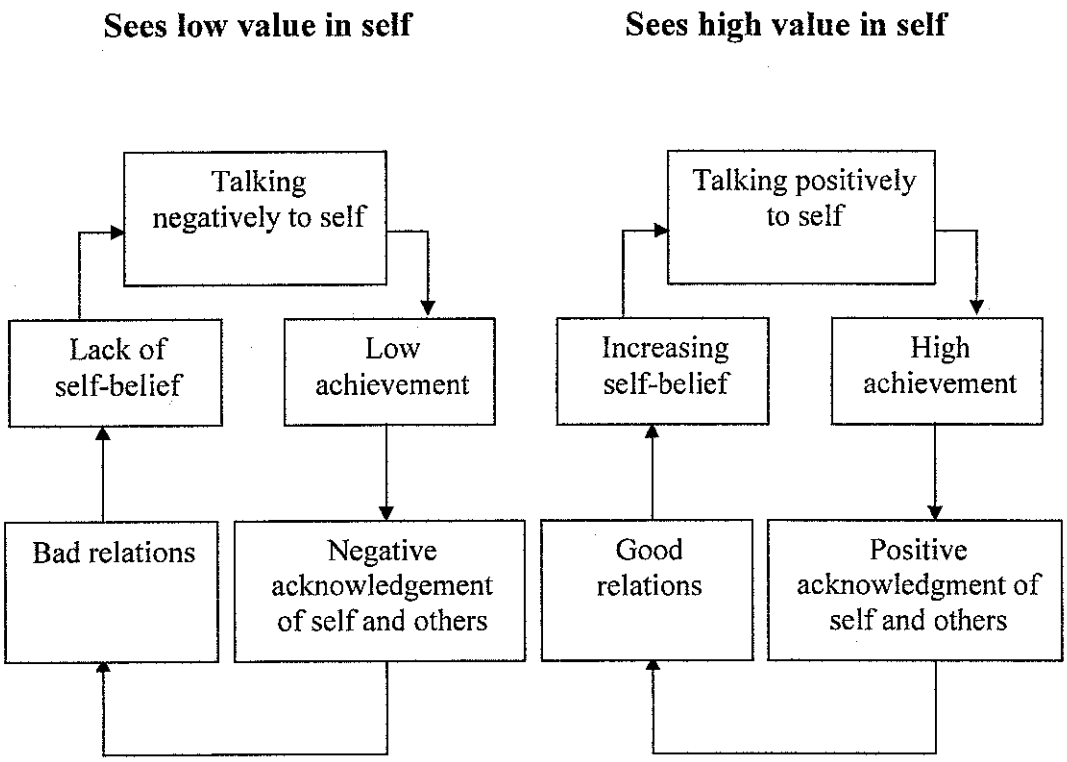

Figure 2. 3 Examining Self-image

Source: Baron and Paulus, 1991: 56

In the aspect of the relationship between believing in the power of self and the success in education, if learners possess elements of self belief and see a high value of self, their success in education will be high. On the contrary, if learners lack self value, have unstable emotions, and are unable to control themselves, they will face failure in education.

By this, we can see that the characteristics of learners that affect their decision to study further, depend on various factors that have been stated above. Preparing a person to enter the education system at a university level is very important. A preparation course should be initiated to create a group of people who have learning capability, knowledge, realization of their own abilities, and are able to make use of their knowledge. This plan should be considered and be researched further to know

the factors affecting the decision to study further of students and the factors for success in learning. More attention and encouragement should be given to students starting from high school so they will move on to university as efficient learners and become a strong labor force, with the potential to improve the economics and society of the country in the future.

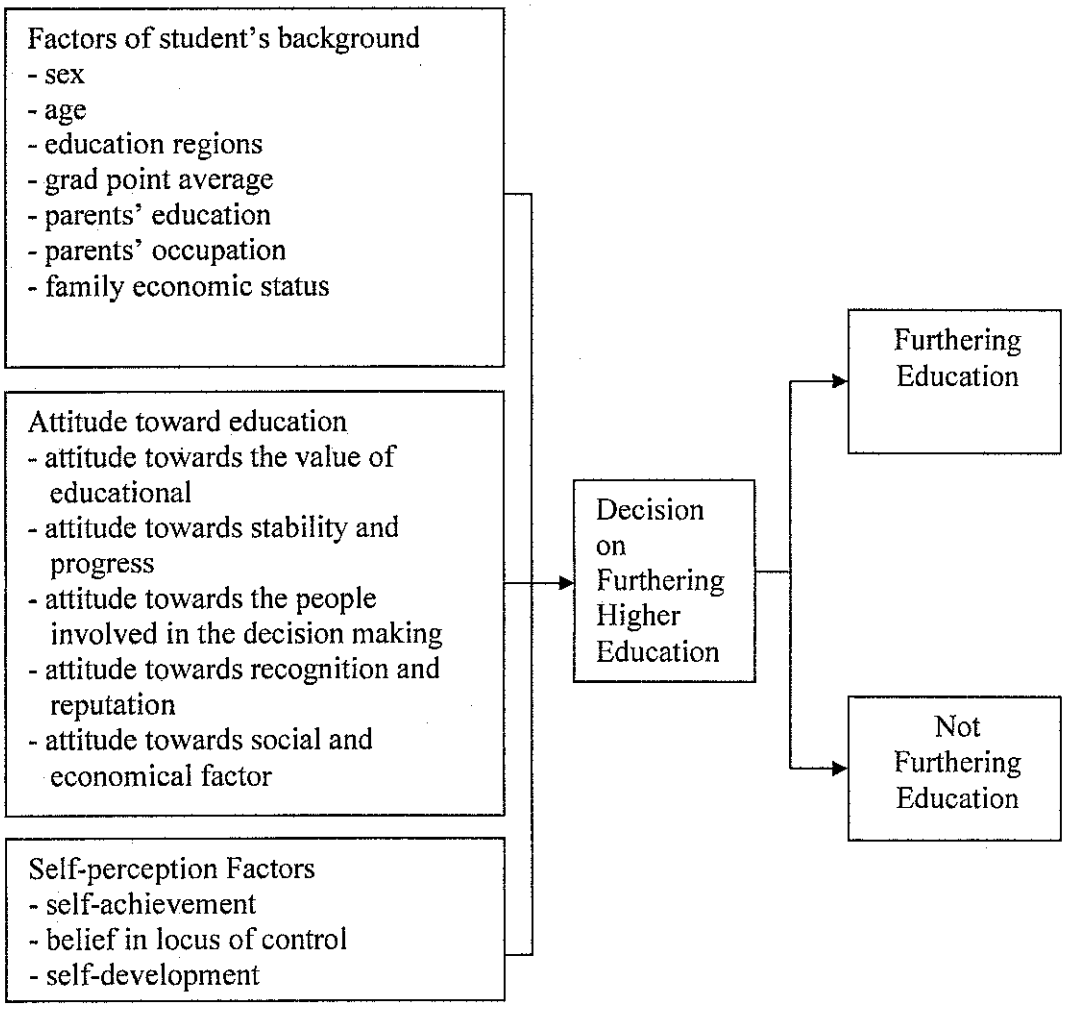

Figure 2. 4 Factor Influencing the Decision of Students to Continue their Higher Education

CHAPTER 3

RESEARCH METHODOLOGY

The study of Factors influencing the decision of grade 12 students to continue their higher education was conducted through a survey. A total of three months was spent in collecting field data. The following is the procedure which acts as the guideline for this research: Population and Samples, Research instruments and Operational Definition, Data Collection, and Data Analysis.

3.1 Population and Sample

3.1.1 Population

The target group of the study were the students studying in high schools that are under the affiliation and supervision of the Department of General Education, Ministry of Education. The school had to be located in one of the 12 education regions. A total of 315,873 high school students were surveyed in this study. However, this number did not include students who were studying in Bangkok because Bangkok has distinctive characteristics in its student population when compared to those in other education regions. Although Bangkok is considered a part of the central region, but because the area is industrially, commercially, and educationally developed, and is the center of many important government offices, Bangkok was regarded as a separate region. Furthermore, its population is too large to be analyzed with the central region (National Statistical Office, 2002) . According to various research papers such as "Migration Urbanization and Development in Thailand" (Office of the National Economic and Social Development Board, 2003: 32) Bangkok should not be put together with the central region. It should, on the other hand, be considered separate from other regions. It has to be noted that there is a great disparity in the improvements of the different regions in Thailand. Development occurs only in some areas, particularly Bangkok. By focusing progress around the

capital city, the country is creating an imbalance in the allocation of property, in the advancement of modern transportation, in the movement of the population, and in the level of education. Improvements only in particular regions are already causing political and economic problems for Thailand to solve. In addition, observations and reports on economic and social status of households in the years 1996-2004, compiled by the Department of National Statistics, Ministry of Information Technology and Communication, separated Bangkok from the central region.

3.1.2 Sample Size

The number of samples used in this study was randomly selected from a total of 315,873 students studying in grade 12 during the year 2003, in either public or private schools under the affiliation and supervision of the Ministry of Education, the schools being located in one of the 12 education regions excluding Bangkok. The Yamane formula (1973: 1088-189) was used to determine the sample size. The formula is as follows:

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

n = sample size

N = total number of students

e = sampling error (e was set for this study = 0.0285)

This is the approximation of the sample size used in the research. Its accuracy rate is 97.1.

Substitute $$n = \frac{315{,}873}{1 + 315{,}873(0.0285)^2}$$

n = 1,226 students

* From the calculation, the result shows that the number of samples appropriate for this study was 1,226 students. The actual number of students suitable for analysis was 1,216 students.

Table 3.1 The number of grade 12 students studying in semester 2/2003 in either public or private schools under the affiliation and supervision of the Ministry of Education, is divided according to the 12 educational regions excluding Bangkok. The total amount being 315,873 students.

Table 3.1 Number of Students Classified by Education Regions

Education region 1	Student number	Education region 2	Student number	Education region 3	Student number	Education region 4	Student number	Education region 5	Student number	Education region 6	Student number
Nakhon Pathom	4,091	Natathiwat	1,629	Chumphon	2,850	Krabi	1,790	Kanchanaburi	3,126	Chai Nat	2,112
Nonthaburi	4,735	Pattani	1,223	Nakhon Si Thammarat	7,849	Trang	3,562	Prachuap Khiri Khan	1,764	Ayutthaya	3,207
Pathum Thani	11,266	Yala	1,047	Phatthalung	2,743	Phang Nga	889	Ratchaburi	4,029	Lop Buri	3,527
Samut Prakan	12,891	Satun	1,309	Songkhla	5,668	Phuket	1,297	Samut Songkhram	906	Saraburi	2,584
Samut Songkhram	4,344			Surat Thani	4,978	Ranong	556	Suphan Buri	3,868	Singburi	1,160
								Petchaburi	2,761	Ang Thong	1,343
										Uthai Thani	1,623
total	37,327		5,208		24,088		8,094		16,454		15,556

Table 3.1 (Continued)

Education region 7	Student number	Education region 8	Student number	Education region 9	Student number	Education region 10	Student number	Education region 11	Student number	Education region 12	Student number
Kamphaeng Phet	2,933	Chiang Rai	5,660	Khon Kaen	11,340	Kalasin	7,073	Chaiyaphum	6,081	Chanthaburi	2,700
Tak	2,493	Chiang Mai	6,361	Loei	3,349	Nakhon Phanom	3,905	Nakhon Ratchasima	14,538	Chachoengsao	2,782
Nakhon Sawan	4,496	Nan	3,081	Sakon Nakhon	6,100	Maha Sarakham	6,078	Buri Ram	9,138	Chon Buri	13,866
Pichit	2,481	Phrae	2,711	Nong Khai	4,394	Yasothon	2,972	Sisaket	8,890	Trat	1,045
Pitsanulok	4,608	Mae Hong Son	1,027	Udon Thani	7,740	Roi Et	7,978	Surin	8,481	Nakhon Nayok	1,266
Phetchabun	4,933	Lampang	3,726	Nong Bua Lamphu	2,583	Ubon Ratchathani	9,086			Prachin Buri	2,403
Sukhothai	3,016	Lamphun	2,435			Mukdahan	2,468			Rayong	2,636
Uttaradit	2,222	Phayao	3,219			Amnat Charoen	2,181			Sakaeo	2,668
Total	27,182		28,220		35,506		41,744		47,128		29,366
Total combined for the whole country											315,873

3.1.3 Sampling Method

To perform random sampling, the method of Multistage Sampling was used. Each stage followed Simple Random Sampling to draw from the education regions until the required size was obtained. This was aided by the principle of population proportion and the consideration of the appropriateness of the representation. Details are as follows:

Procedure 1: Randomly select provinces from the education regions. Two provinces were chosen from each region using the simple random sampling method (refer to Chart 3.2)

Procedure 2: Determine the sample size according to the proportion of the population (refer to Chart 3.3) : Total number of samples sorted by education regions.

Table 3.2 Provinces Selected for Interview Classified by Education Regions

Education Region 1	Samples	Education Region 2	Samples	Education Region 3	Samples	Education Region 4	Samples	Education Region 5	Samples	Education Region 6	Samples
Nakhon Pathom	Nakhon Pathom	Natathiwat	Yala	Chumphon	Phatthalung	Krabi	Krabi	Kanchanaburi	Samut Songkhram	Chai Nat	Ayutthaya
Nonthaburi	Nonthaburi	Pattani	Satun	Nakhon Sihammarat	Surat Thani	Trang	Trang	Prachuap Khiri Khan	Suphan Buri	Ayutthaya	Lop Buri
Pathum Thani		Yala		Phatthalung		Rhang Nga		Ratchaburi		Lop Buri	
Samut Prakan		Satun		Songkhla		Phuket		Samut Songkhram		Saraburi	
Samut Songkhram				Surat Thani		Ranong		Suphan Buri		Singburi	
								Petchaburi		Ang Thong Uthai Thani	

Table 3.2 (Continued)

Education Region 7	Samples	Education Region 8	Samples	Education Region 9	Samples	Education Region 10	Samples	Education Region 11	Samples	Education Region 12	Samples
Kamphaeng Phet	Pitsanulok	Chiang Rai	Chiang Rai	Khon Kaen	Khon Kaen	Kalasin	Kalasin	Chaiyaphum	Nakhon Ratchasima	Chanthaburi	Chon Buri
Tak	Phetchabun	Chiang Mai	Chiang Mai	Loei	Udon Thani	Nakhon Phanom	Ubon Ratchathani	Nakhon Ratchasima	Buri Ram	Chachoengsao	Rayong
Nakhon Sawan		Nan		Sakon Nakhon		Maha Sarakham		Buri Ram		Chon Buri	
Pichit		Phrae		Nong Khai		Yasothon		Sisaket		Trat	
Pitsanulok		Mae Hong Son		Udon Thani		Roi Et		Surin		Nakhon Nayok	
Phetchabun		Lampang		Nong Bua Lamphu		Ubon Ratchathani				Prachin Buri	
Sukhothai		Lamphun				Mukdahan				Rayong	
Uttaradit		Phayao				Amnat Charoen				Sakaeo	

Table 3. 3 Number of Students Classified by Education Regions

Education Regions	Total number of student	sample
Education Region 1		
Nakhon Pathom	4,091	37
Nonthaburi	4,735	43
Total	8,826	80
Education Region 2		
Yala	1,047	11
Satun	1,309	12
Total	2,356	23
Education Region 3		
Phatthalung	2,743	25
Surat Thani	4,978	45
Total	7,721	70
Education Region 4		
Krabi	1,790	16
Trang	3,562	32
Total	5,352	48
Education Region 5		
Samut Songkhram	3,126	28
Suphan Buri	2,761	25
Total	5,887	53
Education Region 6		
Ayutthaya	3,207	29
Lop Buri	3,527	32
Total	6,734	61
Education Region 7		
Pitsanulok	4,608	42
Phetchabun	4,933	45
Total	9,541	87
Education Region 8		
Chiang Rai	5,660	51
Chiang Mai	6,361	58
Total	12,021	109
Education Region 9		
Khon Kaen	11,340	103
Udon Thani	7,740	70
Total	19,080	173
Education Region 10		
Kalasin	7,073	64
Ubon Ratchathani	9,086	83
Total	16,159	147
Education Region 11		
Nakhon Ratchasima	14,538	132
Buriram	9,138	83
Total	23,676	215
Education Region 12		
Chon Buri	13,866	126
Rayong	2,636	24
Total	16,502	150
Total	**133,855**	**1,216**

3.2 Operational Definitions and Research Instrument

Before the procedure of designing the research instrument and examining it, the definitions of technical terms will be presented in order to create a better understanding of the procedures used in the research instrument design.

3.2.1 Operational Definitions

University Education: Education at university level means education after high school. It is a more formal form of education and is a higher study for those seeking profound knowledge and looking to broaden their qualifications and skills.

Universities under government supervision: mean public universities under the supervision of the Higher Education Committee. Any decisions will be made within the committee. There is a separation between the decision and role of management and academics. The management has an emphasis on appointing personnel at each level where each person has the power to govern, supervise, and preserve the university. Profits can be sought from using university assets. The university can manage their income and does not need the Ministry of Finance to guide or control. The government will allocate the necessary budget to the university.

Factors regarding interests to study further: factors that affect the decision to study further in university or get a Bachelor's degree.

Interests and specialties: the conditions that cause satisfaction to students and enable them to choose to study further in the branch that suits their specialty.

Stability and progress: the opportunity to acquire knowledge, receive training, go on study trips, and obtain a stable career along with having security in life and duty.

The needs of related people: the needs of parents, guardians, relatives, teachers, and professors which affect the decision to study further.

Choosing a profession: the determination or interests of students when deciding to choose a profession after university graduation.

Motivations: factors that influence the students' decision to study in university.

Self-achievement: the characteristics of the students that choose to study in university as well as the level of their determination to succeed in their educational goals.

Self-acknowledgement: observing and appraising oneself through personal understanding from situations or interactions with others.

Reference groups: a group of people or a person with the tendency or a standard to be compared to, under the conditions of intimacy in social ways, such as being a person with similar social status or in structural ways, such as living nearby, which can have an influence on students when deciding to study further in university.

Parents or Guardians' economic status: the income of parents or guardians that support the family which includes wages, monthly income, interests, dividends as well as other sources of income.

Believing in self-empowerment or believing in their power: means the attitudes and beliefs of the students who have confidence in their ability, that they will achieve success in the activities they do especially in education. It is also having faith in one's value and importance.

Self-discipline: a person's character that enables them to control their self, in terms of thoughts and actions and behaving well in the way that one has determined and in a way that is socially acceptable.

Hardworking: a person's character that desires and determines to achieve each targeted activity, without being discouraged by obstacles or dispirited when encountering failure.

3.2.2 Research Instrument

The instruments used in this research was a survey, which was divided into three sections. This survey was created after revising literary works that are associated with the factors and variables which influence or encourage students to demand or desire the continuation of a higher education. The questions in the survey contain

subject matters that cover topics from the Operational definitions. The three sections in the survey were arranged as follows:

3.2.2.1 Section 1: This section contains questions related to students' personal traits and students' background which include their current school, branch of study, age, sex, domicile, grade point average, parents' highest level of education, parents' profession, family financial status, decision to continue further studies at university, and reasons for studying or not studying further. The survey will contain a total of 19 questions.

3.2.2.2 Section 2: This section contained questions related to personal factors that influence the students' decision to continue their studies at university. Their opinions were measured using the Likert Scale, there were 5 responses: strongly agree (5) , agree (4) , neutral (3) , disagree (2) , strongly disagree (1) . The questions were categorized into 5 parts as follows:

1) Part 1: Factors regarding student attitudes toward education – a total of 18 questions

2) Part 2: Factors regarding future stability and progress – a total of 5 questions

3) Part 3: Factors regarding the people involved in making the decision to continue higher education at university – a total of 8 questions

4) Part 4: Factors regarding reputation and recognition – a total of 5 questions

5) Part 5: Factors regarding social and economic factors – a total of 8 questions

3.2.2.3 Section 3: This section contained questions concerning the students' level of self-acknowledgment and self-development, which also included their motivation for success and their self-confidence. The questions aimed to determine whether these factors could influence the decision of students to study further in university. It measured the level of opinion as shown here: greatest (5) , great (4) , moderate (3) , little (2) , least (1) . The questions were divided into 3 parts:

1) Part 1: Factors involving the students' acknowledgment of their motivation for success – a total of 29 questions

2) Part 2: Factors involving the students' acknowledgement of their confidence – a total of 9 questions

3) Part 3: Factors involving the students' acknowledgement of their ability to improve – a total of 34 questions

3.2.3 Examination of Research Instrument

Every survey used in this research has been verified to ensure that their details correlated to the subject matter. This was done through face validity from professors before the surveys were distributed for a pre-test. This was to attain a survey questionnaire that was highly reliable and academically acceptable. The forms have also been tested twice. The first test was in October of 2003, and the second test was in November of the same year. The test was completed by 112 students in grade 12 studying in the Nonthaburi region. After collecting the questionnaires, results from the survey forms were checked for their completeness and correctness.

Results from the survey questionnaires that measured the level of student opinions were analyzed separately using the Item Analysis method. This was done by finding the value of the Correlation Coefficient between the scores of each item, and the total score. Only the items with the highest value of Correlation Coefficient were selected. This has important statistical significance and can be a model for real use in the future. Each questionnaire was passed through a reliability test using Cronbach's Alpha Coefficient, and the results were as follows

3.2.3.1 Measurement of opinion on the value of education, where reliability was equal to.8243

3.2.3.2 Measurement of opinion on stability and progress, where reliability was equal to.7781

3.2.3.3 Measurement of opinion on the people related in the decision making, where reliability was equal to .7751

3.2.3.4 Measurement of opinion on recognition and reputation, where reliability was equal to.7481

3.2.3.5 Measurement of opinion on social and economical factors, where reliability was equal to.8462

3.2.3.6 Measurement of Self achievement, where reliability was equal to.8863

3.2.3.7 Measurement of belief in locus of control, where reliability was equal to.9152

3.2.3.8 Measurement of self-development, where reliability was equal to.8984

3.3 Data Collection

Data collected from the primary source was aided by the cooperation of Directors and teachers of the schools that had been randomly selected as samples. When data had to be collected during class time, a lot of help was received from the teachers. The purpose of the research and its procedure were clearly explained during the data collection in December 2003 to March 2004. Great importance was given to students who were chosen to complete the survey. The questionnaire was made to resemble a self-report where students independently answer questions about their background, opinion on the decision to continue further studies, attitudes toward education, and acknowledgement of self-potential. Before distributing the survey, besides explaining its purpose, characteristics of the questionnaires had to be explained in detail. After the survey was done, students returned them to their teachers. All surveys were to be checked for completeness before being encoded and used for analysis.

3.4 Data Analysis

To examine the data, the analysis was divided into 4 parts, which were: 1) Analyzing the decision of students in the sample to study or not study at university,

and looking at each one's characteristics and traits by considering their gender, grade point average (G.P.A) , age, education regions, parents' education level, parents' occupation, and family income. Then, analyze their attitude toward education by focusing on their attitude toward the following: value of education, stability and progress, people involved in making the decision, recognition and reputation, and social and economic factors. Next, analyze the level of self-acknowledgement, which would cover the areas of self achievement, the belief in locus of control, and self-development. 2) Studying the relationship between characteristics of the students' background, attitudes toward education, and self-acknowledgement and how they influence the decision of students to study or not study further. 3) Analyzing the characteristics of the students' background, attitudes toward education, and the acknowledgement of self-potential and how they affect the decision of students to study or not study further 4) Analyzing the characteristics of the students' background, attitudes toward education, and the acknowledgement of self-potential that would affect their decision to study or not study further by sorting them according to education region.

3.4.1 Measurement of Variables

The presentation of the characteristics of the variables and measurement will help create convenience and a clearer understanding of the analysis. This is shown in the following Table.

Table 3. 4 Measurement of Variables

(**Variables**)	(**Measurement**)
(Independent Variables)	
Sex	0 Male 1 Female
Regions	1 North 2 Northeast 3 Central, East, South 4 Central, East
Age	Year
Grade Point Average (G.P.A)	Scores
Father's Education	0 Middle School and higher 1 Middle School
Mother's Education	0 Middle School and higher 1 Middle School
Father's Occupation	0 Government Official, State Enterprise, Personal Business 1 agriculture, Providing services for hire, others
Mother's Occupation	0 Government Official, State Enterprise, Personal Business 1 agriculture, Providing services for hire, others
Family Income	Income (baht)
Attitude toward the value of education	Scores from the 18 questions, with a scale range of 1 to5
Attitude toward stability and progress	Scores from the 5 questions, with a scale range of 1 to5
Attitude toward the people involved in the decision making	Scores from the 8 questions, with a scale range of 1 to 5
Attitude toward recognition and reputation	Scores from the 5 questions, with a scale range of 1 to 5
Attitude toward social and economic factors	Scores from the 8 questions, with a scale range of 1 to 5
Self Achievement	Scores from the 29 questions, with a scale range of 1 to 5
Belief in locus of control	Scores from the 9 questions, with a scale range of 1 to 5
Self Development	Scores from the 34 questions, with a scale range of 1 to 5

3.4.2 Statistics used for Analyze Data

To analyze the statistical data, descriptive statistics were used. They describe the characteristics of the samples according to the dependent variables and independent variables by presenting them in the form of frequency, percentage, average, standard deviation, and highest and lowest value, or range.

As for the study of factors that influence the students' decision to continue higher education, they were based on the quality and appropriateness of the statistics between the dependent and independent variables. The dependent variable in this research is the decision to continue higher education, which has a set of value of 2. Here, 0 = the decision not to continue further studies, and 1= the decision to continue further studies. The independent variables contain three parts, which are the factors on the students' background, opinions toward education, and acknowledgment of self-potential. More details are as follows:

The independent variables used in the study of the students' background that would influence their decision to continue further studies in university include: sex, education region, age, grade point average (G.P.A) , parents' level of education, parents' occupation, and family income. Factors involving opinions toward education include the opinion on the value of education, and on social and economic factors. The last factor involves the acknowledgment of self-potential, which includes self achievement, the belief in locus of control, and self development.

The cross-tabulation technique was used to complete the Bivariate Analysis. For Multivariate Analysis, Logistic Regression was implemented to find the factors that influence the decision of students to continue their higher level education. This was done by bringing the independent variables stated above and adding them into the analysis together with the other variables. This is a method known as Hierarchal Analysis. It is to study the influences of the group of variables on the following variables.

The formula for this study is:

The decision to continue further studies = $a + b_1$ sex + b_2 grade point average (G.P.A) + b_3 education region + b_4, age+ b_5 father's level of education + b_6 mother's level of education + b_7 father's occupation + b_8 mother's occupation + b_9 family income + b_{10} opinion on the value of education + b_{11} opinion on stability and progress + b_{12} opinion on the people involved in the decision making + b_{13} opinion on recognition and reputation + b_{14} opinion on social and economic factors + b_{15} self achievement + b_{16} the belief in Locus of control + b_{17} self Development

CHAPTER 4

RESULTS FROM DATA ANALYSIS

The decision of 12th grade students to continue their studies at university were influenced by many factors. First were factors that related to the students' background, which include their gender, age, grade point average, region of education, parents' level of education, parents' occupation, and family financial status. Second were factors that related to the students' attitudes toward education, which included their attitudes toward the value of education, stability and progress, people involved in making the decision, reputation and recognition, and economics and society. Third were factors that related to self-acknowledgement, which include motivation for success, self-confidence, and enthusiasm for progress. The analysis has been divided into 4 parts as follows:

4.1 Students' background, attitudes toward education, and the ability to acknowledge self-potential

4.2 The decision to study or not study further

4.3 The relationship between factors that influence the decision to study or not study further

4.4 Analyzing using the logistic regression model to study factors influencing the decision of students to study or not study further

4.5 Analyzing logistic regression to study factors influencing students in different education regions to study or not study further

4.1 Students' Background, Attitudes toward Education, and the Ability to Acknowledge Self-Potential

According to the results of the study on 1,216 students, 89.80 percent wanted to pursue higher education. The following outcome helps illustrate the characteristics and students' family background: 35.4 percent were male students and 64.6 percent

were female students, 58.1 percent were 12th grade students aged 16-17 and 53.8 percent had a grade point average between 2.00-2.99. Education level of 49.0 percent of the parents and 55.9 percent of the mothers was lower than middle school. As indicated by data on Thai labor, The education level among the Thais is seemingly low. 38.33 percent had an elementary school education, 23.19 percent completed elementary school, 13.32 percent completed middle school, and 3.45 percent did not have any education at all (National Statistical Office, 2002)

For parents' occupations, results showed that 28.7 percent of the fathers work as government officials, state enterprise officials, or business employees, a close proportion to the 26.7 percent that work in agriculture. Findings on mothers' occupations are slightly different. 27.2 percent of mothers worked in agriculture, and 26.2 percent in commerce. Data was collected from schools in provinces and education regions other than Bangkok, where average income is low, and findings show 31.5 percent of families earn less than 8,000 baht per month.

Findings on factors concerning the attitudes toward the value of education showed that 56.2 percent of the students view education as a necessity in life, because it keeps them updated with current events and information, and increased their competency and skills. The findings on the attitudes toward stability and progress, if they had received a university education, showed that 53.0 percent believed education is important in the creation of stability in life and career. With a university degree, it will be easier for them to find jobs, progress, and move up the social and economic ladder. Findings on the attitudes toward people involved in the decision making showed that 62.3 percent view those who they have a close relationship with, whether it is their parents, siblings, friends, role models, prominent people in society, all play an important role in the decision to continue their further studies. Findings on the attitudes toward recognition and reputation showed that 69.2 percent believed a high level of education will earn their family recognition and respect, and provide them with a decent occupation, acceptance in society, and respect as a role model for later generations. Findings on the attitudes toward society and economics showed that 57.5 percent regard social and economic factors as very influential in their decision to

pursue higher education. If parents had financial support, they would be able to sponsor education for their children. After graduation, students can get a job and raise their financial and social status. In addition, while studying at university, students can do part time jobs to earn extra income.

Research on factors concerning acknowledgement of self-potential shows that 54.1 of the students acknowledge their ability to learn, acquire knowledge, update themselves on the changes in society, and adapt what they learn to use in class. They admit to being quick-witted in solving problems, possess the ability to accomplished difficult tasks, think reasonably, adjust to different environments and people, and have high motivation. 53.3 percent of the students have confidence in their studies, their way of life, and the way they think optimistically about themselves. These students believe they can contribute positively to society and to others. They feel their work is efficient and take pride in making decisions on their own. These students have a high confidence.

Findings on factors concerning students' improvement showed how 52.5 percent feel they have the perseverance, strive, and ability to manage time for extra research. They prepare for class, review for tests, conduct research for extra knowledge, organize projects that support their academic studies, and build up self-motivation to succeed in learning. They would constantly find ways to advance in their studies. (Table 4.1)

Table 4. 1 Students' Background, Attitudes toward Education, and the Ability to Acknowledge Self-potential

Independent Variables	number	percent
Students' background		
Sex		
male	431	35.4
female	785	64.6
Grade Point Average (G.P.A)		
Higher than 3.00	465	38.2
2.00 – 2.99	654	53.8
1.00 – 1.99	97	8.0
Age		
Higher than 18 year old	509	41.9
16 – 17 year old	707	58.1
Educational Regions		
Region1 (North)	196	16.1
Region2 (Northeast)	535	28.3
Region3 (Central,East)	344	44.0
Region4 (South)	141	11.6
Father's Education		
Bachelor and higher	261	21.5
Middle School	359	29.5
Lower Middle School	596	49.0
Mother's Education		
Bachelor and higher	242	19.9
Middle School	294	24.2
Lower Middle School	680	55.9
Father's Occupation		
Government Official, State Enterprise,Business Employees	349	28.7
Personal Business	277	22.8
Providing services for hire	265	21.8
Agriculture	325	26.7

Table 4. 1 (Continued)

Independent Variables	number	percent
Mother's Occupation		
Government Official, State Enterprise,Business Employees	276	22.7
Personal Business	319	26.2
Providing services for hire	290	23.8
Agriculture	331	27.2
Family Income		
Higher than 30,0001	259	21.3
15,001 – 30,000 baht	274	22.5
8,001 – 15,000 baht	300	24.7
lower than 8,000 baht	383	31.5
Attitude toward Education		
Attitude toward the value of education		
high (75-90)	683	56.2
low (58-74)	533	43.8
$\overline{X}$ (SD)	75.6 (6.1)	
Attitude toward stability and progress		
high (21-25)	645	53.0
low (8-20)	571	47.0
$\overline{X}$ (SD)	20.8 (2.7)	
Attitude toward the people involved in the decision making		
high (31-45)	757	62.3
low (12-30)	459	37.7
$\overline{X}$ (SD)	28.6 (4.4)	
Attitude toward recognition and reputation		
high (16-20)	842	69.2
low (7-15)	374	30.8
$\overline{X}$ (SD)	20.6 (2.7)	
Attitude toward social and economic factors		
high (31-40)	699	57.5
low (8-30)	517	42.5
$\overline{X}$ (SD)	31.1 (4.3)	

Table 4. 1 (Continued)

Independent Variables	number	percent
Acknowledge Self-potential		
Self achievement		
high (116-150)	658	54.1
low (57-115)	558	45.9
$\overline{X}$ (SD)	112.2 (13.5)	
belief in locus of control		
high (35-45)	648	53.3
low (15-34)	568	46.7
$\overline{X}$ (SD)	34.8 (5.1)	
Self Development		
high (118-132)	638	52.5
low (74-117)	578	47.5
$\overline{X}$ (SD)	118.1 (17.1)	

4.2 The Decision to Study or not Study Further

Today, university education is essential. When a country wants to remain competitive in the globalize world, a workforce with extensive knowledge, skills, and university degrees is required. Workers need to be efficient enough to be able to respond to the growth of the nation and its development. This is the reason that motivates most students to study further at university. According to the results from this research, the Southern region has the highest number of students who decide to continue their education, which is 98.60 percent, while the lowest is the Northeast with 89.91 percent (Table 4.2).

Table 4. 2 The Decision to Study or not Study Further Classified by Education Regions

Education regions	total		further		Not further	
	number	percent	number	percent	number	percent
The whole country	1216	100	1092	89.80	124	10.20
Education region 1 (North)	196	100	176	89.80	20	10.2
Education region 2 (Northeast)	535	100	465	86.91	70	13.09
Education region 3 (Central,East)	344	100	312	90.69	32	9.31
Education region 4 (South)	141	100	139	98.60	2	1.40

4.3 The Relationship Between Factors That Influence the Decision to Study or not Study Further

4.3.1 The Relationship Between the Students' Background and the Decision to Study or not Study Further

Table 4.3 shows the students' background that influences the decision of students to study or not study further. From the research, 91.1 percent of the female students decided to continue university education, but for men, it is less, 87.5 percent. In today's society, women are becoming more accepted in the workplace. They have become increasingly involved in just about all sectors of a corporation. Opportunities are given for them to use their skills and knowledge to manage work. They have become experts in both the academic and practical fields, which enables them to find jobs that are just as good as men. Their intelligence comes from their endurance and determination. Women have qualities that assist them to succeed in their studies, and to be able to pursue higher level of education than male students. Devito's findings (1976: 87) are in line with Anotai Kitikornworkul's research (1998: 51) . Both found that female students have higher motivation for success than male students. When variables are controlled, female students are more intelligent, motivated, and possess

higher learning abilities than male students. Furthermore, all female students who live in the Southern region have decided to continue their further studies. Students in the South are the group that gives the most importance to studying further. To them, education is a door that opens up opportunities in work and advancement. They realize that education is needed to remain active in the society. The parents' level of education in the South is higher when compared to other regions, so for this reason, parents could be the motivating factor that encourages their children to get a good education.

According to the research, 97.6 percent of the students with a grade point averages 3.00 and above decide to continue their education, while it is less for students who earn below 3.00, with 85.8 percent. Students in the Northern and Southern region with grade point averages above 3.00 all pursue higher education. Education at high school has a direct influence on the students' decision to continue further studies. Students who do well in school tend to maintain their standing all throughout the course of their studies. Students who earn high scores at school take pride in their abilities. They will have goals in education, be determined to learn new skills, and possess special characteristics including awareness, concentration, enthusiasm, ability to solve problems, and effective study habits.

Factors that create motivation and the decision to study further by students, according to the results of Atkinson's (1964: 76) and Woefel and Archibald's research (1971: 234) , are their high school grade point averages, study habits, and the ambition for knowledge outside the classroom. Olarinoly's research (1979: 125) found that students' high school grade point averages or average score throughout their school years, goals in education, ability to recognize self-potential, and the aim for a future career all affect directly the students' decision to continue higher education. This is in line with Cochran's research (1996: 45) which studied the relationship between studying further and the success in education. The result shows that grade point averages in high school, cleverness, and the desire to learn all affect the decision to continue higher education.

Results show the parents' level of education affect the students' decision to study further. 95.5 percent of the parents finish middle school or higher, and 94.6 percent of their children decided to study further. In the Northern and Southern region, students whose parents finish middle school or higher all decided to study further. This is similar to Seleh's research (1986: 395-396) . A person who has a high level of education will usually encourage their children to pursue higher education too. Education is the key to success. It helps win a good career and create respect in the future therefore parents should support their students pursuit of higher education. This coincides with Gough's research (1960: 91-92) which studied factors relating to the decision to continue university education. The research found that the father's level of education has a direct influence on the decision to study further at university because if a father has a good education, he will have the academic knowledge and abilities to be able to determine the direction of his children's studies. He will become an example, and provide them with advice on the education path they should take. This research coincides with Heathers' findings (1977: 65-70) . Expectation to continue further studies relates to parents' level of education. If parents received a high education, they will be a motivation for the children to pursue similar goals. Children will realize the advantages as well as the value of a high education.

Apart from the parents' level of education, their occupation is also an important determination. From this research, students who decided to study at university had parents who worked as government officials, state enterprise officials, business employees, or owners of a business. These students have higher chances to study at university than students whose parents have other occupations. The occupation of the father and the mother affected students' opportunity for a higher education as high as 95.6 and 93.9 percent respectively.

Additional observation from this research shows that the parents' professions of students in the Northern and Southern regions, who decide to study further at university are government officials, state enterprise officials, or owners of a business. Differences in the parents' career will lead to difference between the families' social and economic status. A person's occupation can be a clear indication of their position

in society. Occupations with high incomes usually require a person to have the knowledge, expertise, abilities, and potential to carry out the job. A person with a well respected career will be recognized among the people in society, and will be accepted, appreciated, and honored. A good career can raise one's standard of living and social and economic status. Education also counts as another important factor in measuring the level of success. Parents who have the means to provide for their children's education will fully encourage and support them to continue to their studies to the highest level. Therefore people with knowledge-based occupations who get good incomes are more likely to send their children to study at university.

The results from this research coincides with Darkenwald and Merrian's findings (1982: 97) . The support from parents and parents' occupations are linked directly to the students' decision to study further at university. Families whose parents have high positioned careers will have broad perspectives, goals in life, and plans for the future. They will try to push for changes and improvements for a better life, and pass on their skills and knowledge to their children more than people whose occupations are as laborers or agricultural workers. This result matches with Taweechai Wiriyagosol's research (1998: abstract) . Family background and parent occupation affect student expectations and their decision to study further. Students who come from families with a good income and a high social and economic status are enthusiastic and motivated. This is similar to the research of Urai Manman (1996: 84) . Parents' occupation and students' expectation for their own career in the future directly affect the decision to study further in the different branches and fields of studies.

Surat Chaiyachomphoo's research (1992: abstract) found out that most of the students who live in the Bangkok region continue further education. This is followed by students from the Northern and Southern region. The region with the lowest number of students pursuing higher education is the Central region. This is because of the Central region's physical conditions where it is crowded with factories. Parents of the students usually work for these factories, while others would rent land. Most have moved to the Central region from a different area, therefore there is a low chance for

them to support their childrens' education. This is similar to Tiamchan Chatukanyaprateep's research (1980: 62) that studied the relationship between factors that affect the students in the Northeastern region to study further. Results showed that parents working in agriculture would support their children to study only in elementary school, while parents who work as government officials or are owners of a business would want their children to study further to the higher level possible.

An interesting finding from the research shows that 96.6 percent of the students who have decided to study further, whose parents earn higher than 15,000 baht, truly pursue higher education. Students in the Southern region whose parents' income is 15,000 baht or higher all decided to study further. Family financial status has a direct influence on the students' chances for a higher education. Higher education requires additional payments whether they are for facilities, books, tools, schedules, or payment to each department to guarantee quality graduates. Therefore, it is evident that financial factors determine the decision to study further. This is similar to Christopher's research (1971: 71) . Students who come from families with a low income will apply to less popular private universities than students from families with a high income. Universities which the latter can afford are usually the center of academic knowledge. They are the leading institutions in teaching, as well as in research and social services. This is the advantage that students with a good financial status can afford.

This research coincides with Gelatt's findings (1974: 3448) . An important factor that affects expectations and influences the decision of students, both from government and private schools to study further at university, is family income. This affects the students' decision and their choices on the branch of study. It also determines their goals for a future career, and anticipates their hopes for progress. Students whose families have sufficient funds to support their education will be successful in getting a high level of education. The result of this study is similar to the studies of Clark (1972: 98-99) . The level of family income indicates the family's financial status, and also creates the social surroundings that can determine the students' opportunity for a higher education. As a matter of fact, the support students

receive from the family to enrich their academic opportunity is dependent on their parents' income. Money is the supporting factor that can provide for a higher education. It is difficult to create equality in education if money is still an important part in the gaining of an education.

Table 4. 3 The Percentage of the Students' Background and their Decision to Study Further

Students' background	Total (n=1,216)		Education region 1 (n=196) (North)		Education region 2 (n=535) (Northeast)		Education region 3 (n=344) (Central, East)		Education region 4 (n=141) (South)	
	further n=1092	not further n=124	further n=176	not further n=20	further n=465	not further n=70	further n=312	not further n=32	further n=139	not further n=2
Sex										
Male	87.5	12.5	79.6	20.4	86.5	13.8	88.9	11.1	96.7	33
Female	91.1	8.9	93.2	6.8	87.5	12.5	91.3	8.7	100.0	0.0
Age										
Higher than 18 year old	93.1	6.9	97.0	3.0	92.7	7.3	90.7	9.3	100.0	0.0
16-17 years	87.4	12.6	82.1	17.9	84.4	15.6	90.6	9.4	98.2	1.8
Grade Point Average (G.P.A)										
Higher than 3.00	97.6	2.4	100.0	0.0	96.5	3.5	96.8	3.2	100.0	0.0
Lower than 3.00	85.8	10.2	73.0	27.0	83.5	16.5	83.5	16.5	98.4	1.6
Father's Education										
Bachelor and higher	95.5	4.5	100.0	0.0	94.2	5.8	94.1	5.9	100.0	0.0
Lower Middle School	83.9	16.1	69.7	30.3	81.0	19.0	85.8	14.2	95.7	4.3
Mother's Education										
Bachelor and higher	94.6	5.4	100.0 0	0.0	91.6	8.4	94.6	5.4	100.0 0	0.0
Lower Middle School	86.0	14.0	75.9	24.1	83.8	16.3	87.0	13.0	95.1	4.9
Father's Occupation										
Government Official, State Enterprise	95.6	4.4	97.4	2.6	93.8	6.2	97.1	2.9	100.0 0	0.0
Agriculture, Providing services, others	84.2	15.8	78.5	21.5	80.5	19.5	84.3	15.7	95.8	4.2

Table 4. 3 (Continued)

Students' background	Total (n=1,216)		Education region 1 (n=196) (North)		Education region 2 (n=535) (Northeast)		Education region 3 (n=344) (Central, East)		Education region 4 (n=141) (South)	
	further n=1092	not further n=124	further n=176	not further n=20	further n=465	not further n=70	further n=312	not further n=32	further n=139	not further n=2
Mother's Occupation										
Government Official, State Enterprise	93.9	6.1	97.3	2.7	92.6	7.4	93.2	6.8	100.0 0	0.0
Agriculture, Providing services, others	85.4	14.6	79.8	20.2	81.1	18.9	87.5	12.5	96.2	3.8
Family income										
Higher than 15,000 baht	96.6	3.4	94.8	5.2	97.6	2.4	95.8	4.2	100.0 0	0.0
Lower than 15,000 baht	84.5	15.5	82.7	17.3	79.9	20.1	86.0	14.0	98.0	2.0

4.3.2 The Relationship Between Attitudes toward Education and the Decision to Study or not Study Further

From table 4.4, an interesting point has been discovered. 94.4 percent of the students who have good attitudes toward education decided to continue their higher education. People with a positive attitude tend to be those eager to learn. They possess the ability to think analytically, and what is more, they recognize the importance and the benefit of education, and use them as a guide in their life and their career. Attitude is very important as it makes the students ready to learn and behave in a studious way. It is one of the important factors that make students want to continue their higher education. This coincides with Fulmer's research (1983: 66) . Attitudes toward the value of education motivate students to succeed in their studies. Students start evaluating the benefits and values earned from education along with analyzing their potential and abilities that they have developed from past experiences, and realize that they can become successful in their studies. This motivates them to continue higher

education. This relates to Smith's research (1997: 89) , which sees the importance of attitudes toward the value of education. Values and attitudes help students make their decision. They trust in the value and benefits education can bring them.

Additional findings show that the students in the Southern region of the country who have positive attitudes toward education were determined to pursue higher education. This is because the Southern region has the highest number of students who decide to continue their studies when compared to other regions. Their appreciation of the value of education came from the parents and the students themselves. Hyman's research (1966: 145) found that parents with a high level of education will encourage their children to cherish and understand the benefits of education, as well as make them become more observant individuals, who are determined to achieve the same level of education as their parents and raise their social and economic status to a higher level. Students will be satisfied with a good attitude towards education because it makes them become attentive, determined, and persevering when studying.

Moreover, this study shows that 94.0 percent of the students who have strong attitudes toward stability will decide to study further. This is because students with a positive attitude toward stability and progress are highly motivated they always think about the progress they can make in their studies and have hopes for a good future career. They are those who desire to accomplish tasks by setting high standards. If there are problems or any uncertainties, these people are able to use their intelligence, abilities, and perseverance to overcome the obstacles. McClelland's findings (1976: 143) agree with the research of Olarinoly (1979: 125) . They studied the desire for stability and progress, and found that people with the motivation for success will think about the advancement in their future career. They would be ambitious, set plans with the aim of becoming successful, manage their work efficiently, and work their best to gain stability and progress for themselves and their families.

This coincides with Adam's research (1964: 99) , which states that there is a relationship between attitudes toward education and toward stability and progress. These factors can influence the decision of students to continue further studies. A

person who looks forward to progress and has the desire to gain more knowledge, is one who is ready to learn and take in new information to adapt for use in their own life. They succeed in life and in education, because they can adjust easily to different situations allowing them to move forward more quickly.

Results shown from this study indicate that students in the Southern region possess strong attitudes toward stability and progress, and all have decided to continue their higher education at university. Parents of these students are highly educated, and work as government officials, state enterprise officials, or owners of a business. These occupations are regarded as high ranking socially and economically. Children are surrounded by success and stability, consequently, they have hopes for progress in their life and career. This coincides with Conger's research (1966: 65) . The attitude towards stability results from how the parents raise and nurture their children. Children will observe the parents as an example. Those who come from a family successful in both its career and life, where the occupations of family members are highly ranked, usually desire to achieve the same level of success as their family. They look forward to stability and progress in the future, and have the determination to acquire knowledge to succeed. This is in line with Harrison's research (1981: 531) . Children, whose parents work for a company, would continue their further education and come back to work for a company as well, or in jobs that require knowledge and skills, where the workplace has prospects for stability and progress.

From the study, 91.7 percent of the students with low attitudes toward the people involved in the decision will continue their further studies, which is higher than the 88.6 percent of students who have high attitudes toward the same factor. Students who live in the Southern region who have low attitudes toward this factor all decided to continue their studies. Research has to be done before deciding to study further. Today, different information channels are available such as Internet and other various other media. This reduces the influence of people in the decision making. Teaching methods today and in the future are and will be different from the past. The information era no longer focuses on instructors' advice to students. Before, teachers were the center of knowledge, today their roles have changed. There is more emphasis

on gaining knowledge by the individuals themselves. Training programs and study method emphasize on problem solving. This reduces the role of teachers.

Similarly Katz's research (1960: 163) found that the attitude towards education is very important in determining the students' decision to study further at university. Students become concerned about the value of education, school environment, and are opened up to information on education, which will make them become more dependent on information channels. Teachers only act as a guide for students through their research process. This weakens the relationship between people and education.

This study found that 91.1 percent of students have a high level of attitude towards recognition and reputation. Today, society is changing rapidly. The number of people migrating into the city is increasing, and social mobility is higher as well. Students will be encouraged to raise their social and economic status, and education is the foundation of the creation of recognition and respect.

Apart from that, this study also shows how students in the Southern region who have positive attitudes toward recognition and reputation, all decided to study further. This is because students from this region are extremely well motivated. They possess the belief in themself, and have high tendencies for self-improvement. They recognize the importance of education and the recognition it brings if they achieve success in education. This is the reason why many students have an optimistic attitude in this area. Similarly to Best's research (1983: 99) . which found that students who gave importance to recognition and reputation are usually students who have a high motivation for success in education. They set up plans, and are motivated to work toward their goal. They are highly responsible and finish their work on time. They have high ambitions for a successful life as well as the desire for recognition and reputation. This is in line with Darkenwald and Merrian's research (1982: 321) , which shows how adults are motivated to study further in university because they desire to gain knowledge to use in work, and raise their social and economic status as well as gain recognition and reputation from the people in the society.

The last interesting point on the attitudes toward education, the study on the attitudes toward social and economic factors showed how 93.0 percent of the students who decide to study further have positive attitudes toward social and economic factors. This is because the lives of people in the world today are changing. They have to be more open to new inventions and new technology that keep pouring in nonstop. Money is needed for convenience and a better standard of living. Now it is the economy that runs the country. Students realize the importance of the economy, and they know it can affect their way of living. Education is therefore, the tool to gain economic status.

This coincided with Bredemeir& Stephenson's research (1964: 123) , which found that today and in the future expenses for education will increase, and the desire for higher education will rise as well. This is because education is the tool to raise one's economic and social status. The work of Ferguson (1976: 344) states that the attitudes toward economy, society, and family income affect the decision of students from government and private schools to continue their education at university. This is especially true for students in the Southern region of the country. Those with positive attitudes toward social and economic factors all decided to study further. Students from the Southern region are highly motivated. What is more, their parents' level of education and occupations are usually higher than those from the other regions. Therefore, the students in the South see the importance of elevating their economic and social status through education.

It is apparent that attitudes toward education affect the decision to study further. It is what makes students more motivated to acquire extra knowledge and possess the determination to succeed in learning. They compete in accumulating knowledge to respond to the demands of a society where many skilled and qualified workers are needed, and to be able to keep up with the advances in technology. Not only do the attitudes toward education have an impact on the students' decision to study further, but factors concerning the acknowledgment of self-potential can explain the phenomenon where students decide to study further as well.

Table 4. 4 The Percentage of the Students' Attitudes toward Education and their Decision to Study Further

Attitudes toward education	Total (n=1,216)		Education region 1 (n=196) (North)		Education region 2 (n=535) (Northeast)		Education region 3 (n=344) (Central, East)		Education region 4 (n=141) (South)	
	Further (n=1092)	Not Further (n=124)	Further (n=176)	Not Further (n=20)	Further (n=465)	Not Further (n=70)	Further (n=312)	Not Further (n=32)	Further (n=139)	Not Further (n=2)
Attitude toward the value of education										
Low	83.9	16.1	83.7	16.3	77.9	22.1	86.9	13.1	97.8	2.2
High	94.4	5.6	94.5	5.5	93.3	6.7	94.6	5.4	100.0	0.0
Attitude toward stability and progress										
Low	85.1	14.9	85.6	14.4	78.9	21.1	89.2	10.8	98.0	2.0
High	94.0	6.0	93.9	6.1	93.3	6.7	92.7	7.3	100.0	0.0
Attitude toward the people involved in the decision making										
Low	91.7	8.3	89.7	10.3	86.0	14.0	97.9	2.1	100.0	0.0
High	88.6	11.4	89.9	10.1	87.4	12.6	85.6	14.4	98.0	2.0
Attitude toward recognition and reputation										
Low	86.9	13.1	88.1	11.9	80.7	19.3	89.4	10.6	98.1	1.9
High	91.1	8.9	90.5	9.5	89.2	10.8	91.5	8.5	100.0	0.0
Attitude toward social and economic factors										
Low	85.5	14.5	86.5	13.5	77.5	22.5	91.5	8.5	97.7	2.3
High	93.0	7.0	92.5	7.5	93.6	6.4	90.1	9.9	100.0	0.0

4.3.3 The Relationship Between Self Acknowledgement and the Decision to Study or not Study Further

According to chart 4.5, an interesting piece of information has been discovered. 91.2 percent of the students who decide to continue their further studies are highly motivated. Students with high motivation are those who are likely to succeed in life and in education. They are creative and ready to obtain knowledge and information, and put them to use in their daily lives. This coincides with the research of Alschuler (1973: 87) . Students with high motivation have stable emotional conditions. They have goals and directions in life. They would know which career they want to do and have the ways to accomplish it, and this is usually done by looking for opportunities in education and being prepared to handle any situation they might have to face. Work strategies will be adapted to create efficiency. High hope and motivation to attain the highest level of education are the characteristics of these students.

The study is in line with the research of Murray (1986: 45) , which stated that students who are highly motivated are those who constantly analyze and improve their skills and abilities. They would look for opportunities that would enrich their capability, usually by enrolling in a class or seminars regularly and studying in areas they have interest in. This would help them produce work that is above average standards. The research is similar to Atkinson's work (1964: 76) which explained how a person's motivation cannot be noticed until work is seen or an evaluation is done, on its level of success to see whether it is above average or not. For example, students who earn good grades for a continuous period of time and are committed to maintain this level of achievement, or get higher results, are considered students with a high motivation to study, as well as those students who are determined to continue their studies at a higher level to elevate their capability and expand their knowledge These students are also considered to be highly motivated.

In addition, the data or results from the study that determine the important factors or influences, that affect the decision to continue further studies, is the belief

in self-empowerment. 90.4 percent of students who decide to continue further studies are those that believe in their self-empowerment. Students who possessed these characteristics are those who believe in their own abilities. They would have a positive attitude, believe that success depends upon oneself, and are satisfied with their capabilities. To them, attaining the highest level of education is up to them, therefore it is possible, consequently, for this group to becomes highly motivated to continue their higher education. On the contrary, those with low level of self-empowerment would make low judgments about themselves and their capabilities. They make themselves believe that success is unattainable and this would lead to a fear of failure and the decision not to continue higher education. This coincides with the research of Bandura (1977: 245) who found that students with the belief in their self-empowerment are those who value their own skills and abilities. They try to look for opportunities in education, have goals and strive to succeed in their studies because they believe that success depends upon oneself. This goes in line with the research of Ahmad (1984: 189) , which shows that students with the belief in their self-empowerment will think that all the things they desire, for example a high grade point average, a higher education, and success in studies, depend on themselves. Whether they succeed or fail, does not depend on any outside factors but solely on their responsibilities, skills and determination.

The work of Anderson (1995: 98) studied the motivation and the belief in self-empowerment of students who are continuing their education. The study found that students who enter the program of study with a goal are those who believe in their self-empowerment. They have the desire to advance their capabilities, competence, and vocational skills, and hope to use this knowledge in daily life. The study is similar to Best (1981: 95) which studied self-confidence and education. The result shows that students with the belief in their power are those who succeed in learning, and would continue their studies at a higher level.

Besides, the development of oneself is important in the decision to study further. 91.2 percent of the students who continue higher education constantly improve themselves. Those who try to enhance their learning skills will have the

motivation to develop their capabilities, increase their knowledge, plan their studies, and push themselves toward their goals. They would try to make the future better than the past, and most of them would enjoy their studies and are satisfied with studying. This coincides with the research of Alexander and Simmon (1975: 402: 403) . It found that students who continuously develop in their studies will know their strengths and weaknesses. They have the ability to analyze their study skills and improve on their weaknesses. They are usually involved in activities, training, and are always enhancing the skills that are required to succeed in learning.

This study also found an interesting result. Students in the Southern region who are highly motivated with the belief in self-empowerment and the urge for self-development all decide to study further. This is because students in the South possess a positive attitude toward education. This directly affects the level of motivation and study habits of students. This coincides with the research of Campbell (1994: 581) , which found out that students who see the value of education are those with high motivation and are always advancing their skills. They would create an environment suitable for learning, and they constantly research and come up with techniques to keep them alert, and organized. They have the courage to face situations and adapt themselves to different environments. They pay attention to the things around them, and always take part in various educational activities. They will try to broaden their opinions and perspective, and with their love for learning, they will have aims for a higher education.

Table 4. 5 The Percentage of the Students' Acknowledgement of Potential and their Decision to Study Further

Acknowledge Self-potential	Total (n=1,216)		Education region 1 (n=196) (North)		Education region 2 (n=535) (Northeast)		Education region 3 (n=344) (Central, East)		Education region 4 (n=141) (South)	
	Further (n=1092)	Not Further (n=124)	Further (n=176)	Not Further (n=20)	Further (n=465)	Not Further (n=70)	Further (n=312)	Not Further (n=32)	Further (n=139)	Not Further (n=2)
Self achievement										
Low	88.2	11.8	88.2	11.8	83.6	16.4	91.8	8.2	97.7	2.3
High	91.2	8.8	90.8	9.2	90.3	9.7	89.7	10.3	100.0	0.0
belief in locus of control										
Low	89.1	10.9	87.5	12.5	83.7	16.3	92.0	8.0	97.7	2.3
High	90.4	9.6	92.0	8.0	89.8	10.2	89.5	10.5	100.0	0.0
Self Development										
Low	88.6	11.4	87.9	12.1	81.0	19.0	93.5	6.5	96.9	3.1
High	91.2	8.8	91.4	8.6	93.1	6.9	87.5	12.5	100.0	0.0

4.4 Analyzing the use of the Logistic Regression Model to Study Factors Influencing the Decision of Students to Study or not Study Further

From the results of the Bivariate Analysis on the fundamental relationships between different factors, the independent variables of each set are related to the variables at varying levels. The study on factors influencing the decision of students to continue their education at university from the Multivariate Analysis, use logistic regression, independent variables are taken for hierarchal analysis. This is done to consider which independent variables have an impact on the students' decision to study further. The results are shown in Table 4.6.

Model 1 is the analysis of factors relating to the students' background. It studies factors on background that influence the decision of students to continue their higher education. The value of -2 log Likelihood or -2LL measures the suitability of the model, which equals 620.734 and Model x^2 change equals 180.362, which has a

statistical significance level of 0.001. Variables concerning the students' background that influences the decision of students to continue their higher education include education region, score report, father's level of education, mother's occupation, and family income. Factors concerning gender, age, mother's level of education, and father's occupation do not influence the decision of students to study further.

The result of the study show that education region influences the decision of students to study further, with a statistical significance level of 0.001. Students from the North decide to study further 6.239 times less than those from the South. Most of the people in the Northern region are farmers and usually migrate to different places to find work. This affects the opportunity for a continuous education of their children. This is opposite to the situation in the South. The Southern region is near the ocean, and many people can get jobs related to fisheries. They either own a business or hire local labor to do the job. The Southern region is also abundant with natural resources, therefore Southerners find no incentive to move, and as a result, migrate less to other regions. This allows students in the South to have a long term education. Moreover, the economic status of the South is relatively high. For this reason, the continuation of student education is higher.

The result of this study shows that students in the Northeast decide to continue their further education 4.978 times less than students in the South. This is because the parents of students in the Northeast are farmers and have lower levels of education than parents in the South. This reduces their support for student education. How parents bring up their children influences the study habits of students. If parents have a good education, and hold high ranking positions, students will have a positive attitude toward the value and benefits of education, which will affect their decision to study further.

This coincides with the research of Natthawuth Naowpradit (2000: 72) , which examined the decision of students to continue their studies the required courses. The result shows that the father's level of education and parents' opinions on education contribute to the decision to study further. The research of Urai Manman (1996: 84)

found that the decision of students to continue their vocational education depends upon the wishes of parents, the parents' level of education and occupation.

In addition, the research shows that students living in the Central and the Eastern regions are 6.9333 times less likely to continue their higher education than students in the Southern region. This is because the Central and Eastern regions share similar social and economic characteristics; they are both centers of industries, and their lands have a high elevation, which attracts many migrants from around the country, both permanent and non permanent. These two regions also face similar problems of overcrowded communities, slums, and drawbacks in education. Children of the migrants have to follow their parents to different places depending on where their work, which disengages them from a long-term education and brings a halt to their studies

This is in line with the research of Surat Chaiyachompoo (1992: abstract) . According to his findings, people from the Central region have the lowest level of education. The Central region is where many small factories are located, and people usually moved there from different regions. Students' education becomes interrupted as they relocate to a new place.

The study also shows that grade point average (G.P.A) influences the decision of students to study further. Students with a G.P.A of 3.00 or above are more likely to continue their education than students with a G.P.A of lower than 3.00. Students whose G.P.A moves up 1 unit, their decision to continue further education will increase 3.783 times. This is because the study habits of students are correlated. Students who are motivated, diligent and always build on their knowledge will recognize their own potential and value. Score reports are usually a good indicator of the students' reliabilities and responsibilities. A positive image and persona is created, and they become an icon who succeeds in education.

This is in line with the research of Cutrona et al (1994: 99) , which discovered the relationship between positive attitudes toward education and positive attitudes toward stability and progress after graduation. They have direct impact on the success of student education and their grade point average, and influence their decision to

study further. Gonzales' work (1994: 76) explained how students who have maintained good grades for many consecutive years will try to maintain the same level or aim for higher scores. These students will have a high motivation and regularly compare their current and past works to others. They will try to improve so that they will produce a standard level of work or higher. This coincides with the research of Devito (1976: 87) , which showed that there is a connection between motivation and grade point average. Students with good grades have the ability to study well; they are creative and always do research outside the classroom. Pimpirasu Siyangnok's research (1997: 71) found out that students with a high motivation will have better grades than those with a low motivation. Students with a strong mind will succeed in their education compared to those who are weak-minded and who have friends that influence them in a negative way.

A factor that influences the decision of students to study further at university is the father's level of education. A student whose father finished middle school or higher will continue their education 0.435 times more than a student whose father had lower than a middle school education. This is because students will learn the value and importance of education from parents. Attitudes students developed toward education will depend on the people who surround them. They would notice and absorb information from their role model or people in the family they are close to. This affects their mindset and behavior. If the student follows and asks for advice from their father who had a good education, the student will learn and instill positive attitudes toward learning. They will possess a motivation to study, see the value of education, and have the desire to enhance their skills, abilities and knowledge. They will be determined to study and acquire more knowledge, and lean towards the decision to study further.

This coincides with the research of Taweechai Wiriyakosol (1998: abstract) that studied factors influencing expectations of grade 9 students on education. Parents' level of education is a major influential factor on the hopes for a higher education. The research of Suthiphorn Chaiyabutr (1996: abstract) , which studied the components of the expectations and students' personal decision, found that the

parents' level of education directly affects the students' decision to continue higher education, which looked at factors relating to the decision to continue further education in college and in university, showed that the education of parents has an influence on the students' decision to continue their studies. A father with a good education, knowledge, and experience can guide the direction of his children's education. Accordingly, the research of Cochran (1996: 151) noted how the sample of teenagers consider the parents' level of education as having an impact on their decision to continue further studies.

Further findings indicate that the mother's occupation also influences the students' decision to continue further studies. A student whose mother occupation is a government official, state enterprise official or owner of a business, is expected to continue their higher education 0.003 times more than a student whose mother is a laborer or farmer. In today's society, more women are bringing income into the family. If a mother has a career that is economically and socially high and their income is enough to support the family expenses and keep some for savings, this will increase the budget the student has to continue higher education to the level that both the student and the parents want. In addition, it is the mother who takes care of what goes on in the family, who gives advice on children's schooling, life, and work, therefore mothers are very influential in the students' decision and attitudes students have toward learning and studying further. This is in line with the research of Seleh (1986: 97) , which showed that the parents' occupation is the major determination of students' higher education. Students will give importance to the parents or the leader of the family by following their lead and take them as an example. Students would imitate how the parents live their lives, work, and follow their steps in education. This coincides with the research of Prayad Pandee (1992: abstract) on the desire and opportunity for university education of students in different regions. The study found that the parents whose occupations are government officials or owner of a business usually support their children in gaining a university education. The research of Tiamchan Chatukanyaprateep (1980: 62) studied the components that relate to the decision of students in education region 7 to continue their studies and found out that

parents whose occupation is in agriculture will only support their children's education to elementary school. This is different from parents' whose occupations are government officials or owners of a business because they would support their children's education to the highest level.

The last background factor that influences the decision of students to continue their higher education is family income. Students whose parents earn approximately 15,000 baht per month will decide to continue their studies 1.811 times more than students whose parents earn less than 15,000 baht per month. To continue one's education at university, funding is a very important factor. Expenses vary from tuition fees, university fees, to books and equipments. A family with a high income will encourage and support their children to study at a higher level. This is in line with the research of Christopher (1971: 71) , which found out that students from families with high income have greater options and are more likely to get into a private university than students from low income families. The research of Anderson (1995: 48) stated that there is high cost for education institutions that encourage students to expand their knowledge and build up on their skills to develop their level of competency, therefore students from families with a high income have greater selection of where they want to study.

When factors concerning the attitudes toward education were applied to model 2, it fitted suitably. The value -2LL equals 556.605 Model x^2 Change from model 1 to 244.491. The statistical significance level is 0.001. If the variables on the students' background are stable, it can be seen that the students' attitudes towards education, toward the people involved in making the decision, and towards recognition and reputation do not influence their decision to study further. However, their attitudes towards the value of education, stability and progress, and social and economic factors do influence their decision. Students whose attitudes toward education move up 1 unit will increase the odds of their decision to study further 0.930 times. This shows that those with positive attitudes toward education will have higher chances of deciding to continue their studies. They would see education as an essential requirement and the foundation for a good life. Education is something beneficial

because it can promote their career, and the amassing of knowledge can be taken for use in their lives. Streams of technology that are pouring into the current society require one to have the knowledge necessary to adapt to the changing world. This coincides with the research of Suthiphorn Chaiyabutr (1996: 44) , which realized the importance of students' attitudes toward education. It helps stimulate the student's study habit. The final decision of students depends on their attitude toward the benefits and value of education. The research of Charnchai Arjinsamacharn (1997: 49) found that attitude determines the decision of a students when they decide to choose their program of study, and if they would continue education to a higher level or not. This is line in with the finding of Harrison (1981: 59) , which found that there is a relationship between attitude toward education and the decision to study further. Attitude determines the decision to continue further education because attitude is what controls the students' study habits and influences the success of their studies.

For students whose attitude toward stability and progress move up 1 unit, the odds of their decision to study further will increase 0.876 times. Students with positive attitude toward stability and progress are more likely to decide to study further because they will believe that education is the stairway to success and progress in life, which will raise their standard of living. With education, one's skills and ability can be developed to suit the demand of the labor market, and with those skills, one can choose one's preferred occupation and generate enough income to create a stable financial status for oneself and one's family. According to the research of Woefel and Archibald (1971: 234) factors that influence the decision to study further is grade point average, determination, attitude toward the value of education, and stability and progress. Cochran's research (1996: 45) found out that the desire to achieve stability influences the decision to study further and affects the motivation to study. The research of Olarinoly (1979: 125) stated that those with a high motivation to study are those who consider opportunities for advancement in life and career. They are diligent, and like competition. Moreover, Adam's research (1964: 99) found that there is a relationship between a good attitude toward education, the desire for stability and progress, and the decision to continue education to higher level. In

addition, it shows that education is what builds up knowledge, and the key that leads to success and progress in further career.

The last factor that influences student attitudes toward education that affects their decision to study further is their attitude toward social and economic factors. For students whose attitudes toward economic and social factors move up 1 unit, the odds of their decision to study further will increase 0.883 times. This shows that students with a positive attitude towards social and economic factors are more likely to continue their education. Students who receive high education will have better knowledge, specialties and skills on the areas they studied, and if their qualification meets the demand of an organization or is a qualification that is in short supply in the labor market, they will be able to generate income in the future, and raise their and their family's social and economic status. This coincides with the research of Olarinoly (1979: 98-99) . Those who see the importance of attitudes toward social and economic factors will try to elevate their standard of living to a higher level and will see the importance of education in making a living. Their values and attitudes toward the desire to continue higher education will increase. This is in line with the research of Brockner and Guare (1983: 123) , which explained how the attitudes toward economic and social factors relate to the decisions of students to continue higher education. To get a job that is respected and earn a good income is the way by which they can raise their and their families' economic and social status.

When factors concerning the level of self-acknowledgement are used with model 3, the result shows that the model is suitable. The value of -22L equals 553.234 Model x^2 change from model 2 to 247.862. The statistical significance level is 0.001. If the variables on the background and attitudes toward education are stable, the variables on the level of self-acknowledgement do not influence the decision of students to study further at university.

4.5 Analyzing Logistic Regression to Study Factors Influencing Students in Different Education Regions to Study or not Study Further

The study, on factors that influence the decision to study or not study further of grade 12 students around the nation, found out that education region plays an important role in the students' decision. The research compares factors that influence students in the different education regions to continue their studies. The research combined the Central, Eastern, and Southern regions together since they are connected geographically and have the highest number of students deciding to study further when compared to other regions. The results of the analysis are as follows:

According to Table 4.7, the model used to compare with education region 1 was the Northern region. The model studied factors influencing the students' decision to study further and found out that the reliability measurement of model -2LL equals 157.744 Model x^2 change, which had only a constant value with a statistical significance level of 0.001. The only factor that influenced the decision of students to study further was the attitudes toward people involved in making the decision. Other variables did not create any impact. The model used to determine the decision to study further is suitable and is 89.8 percent accurate in predicting the decisions of students to continue their studies.

The model that studied the decision of students in education region 2 to continue their studies was the Northeastern region. The value of -2LL equals 276.187 where Model x^2 change only had a constant value and statistical significance level of 0.001. The variables that influenced the decision of students to study further with any statistical significance were their score report, parents' level of education, and parents' income. Factors concerning gender, age, parents' occupation, attitudes toward education, and level of self-acknowledgment did not have any influence on the students' decision. The model used to determine the decision to study further is reliable, and is 91.6 percent accurate in predicting the decision of students to continue their education.

The model was used to study the influences on the decision to study further of students in region 3 were the Central, Eastern, and Southern regions. It was a suitable model with the value of -2LL equals to 168.949 where Model x^2 change only had a constant value and a statistical significance level of 0.001. The variables that influenced the decision of students to study further with any statistical significance were gender, father's level of education, mother's occupation, and attitudes toward the value of education. Other variables did not influence the decision of students to study further. The model that was used to determine the decision of students to study further is reliable and can predict the results with an accuracy rate of 92.8 percent.

The model used to study factors that influenced the students in education region 4 to study further were the Central and Eastern regions. They were appropriate for the study, with the value of -2LL equals -112.604 where Model x^2 change only had a constant value and a statistical significant level of 0.001. The variable that influenced the decision of students to study further with any statistical significance were score report, parents' level of education, father's occupation, attitude toward the value of education, stability and progress, people involved in making the decision, and recognition and reputation. Other factors did not influence students' decision to study further. The model used in the study is 92.7 percent accurate.

From the study of the comparison between factors that determined the students' decision to study further in different education regions, many interesting results were discovered as follows:

Factors of gender influenced the decision to study further especially in region 4 or the Central, Eastern, and Southern regions. Male students decided to continue their higher education 0.756 times less than female students. This is because the world is entering the era of globalization. Institutions have to adapt to the age of information technology and lay foundations for an education system that will produce an efficient, effective, skillful, knowledgeable workforce of equal competence to other nations. The local population therefore, receive more opportunities in education especially the female students. News and information of education have disseminated throughout the country, even to the Islamic society in the South, where in the past, it was unusual

for parents to allow their daughters to continue higher education. Now they have become more open to education and understand more fully about its importance. Additionally society today acknowledges female skills and abilities. Women can elevate their level of education, knowledge, skills in making a living and hold high ranking positions. This leds to more female students continuing their education.

This coincides with the research of Cochran (1996: 88) which found that female students have a high motivation and are involved in many academic activities They were diligent when learning, had goals in their studies and always improved their skills in various fields more than male students. Moreover, female students had more desire to continue higher education than male students. This is similar to the research of Aree Rangsinan (1989: 51) , which found that female students had more enthusiasm than male students. When the intellectual variables were controlled, it was discovered that female students are more motivated and inspired, and wanted to continue their higher education more than male students.

Students in education region 2, or those in the Northeast, and students in education region 4 or those in the Central and Eastern regions, that have high grades decided to study further more than those with low grades. For students in the Northeast whose score moved up 1 unit, the odds of their decision to study further increased 0.213 times, while it would increase 0.514 times for students in the Central and Eastern regions.

Olarinoly's research (1979: 125) explained that students with a high grade point average during high school and who have the motivation to study, as well as the ability to adapt themselves to different situations and solve any problems concerning education, will have the desire to continue their education at university more than any other group of students. This is in line with the research of Adams (1964: 99) , which found that a relationship existed between the success in learning, plans and goals made on education, and the ambition to attain more knowledge through research, to the decision to study further. The study of Cutrona et al (1994: 234) found that grade point averages of the study group during their high school years, the realization of the values and benefits of education, the aspiration for learning, the habit of analyzing

their surroundings, the appreciation for science and technology, influenced the decision to continue higher education and the selection of a high ranked career.

Moreover, this study found that students in education region 2, or those in the Northeast, education region 3 or those in the Central, Eastern, and Southern regions, and education region 4 or those in the North and East, whose father's level of education was higher than middle school decided to study further 0.195, 0.376, and 0.038 more times respectively, which is greater than students whose father's level of education is lower than middle school. The research also found that students in education region 2 or the Northeast, and education region 4 or the Central and Eastern regions, whose mother's level of education was higher than middle school were going to continue their higher education 128 and 10.855 more times respectively than students whose mother had a lower education than middle school.

There is a relationship between the parents and students' level of education. Parents with a high education are more likely to support their children having a higher education. Students will be informed about their parents' level of education and will have the desire to continue their education at a higher level too. The study coincides with the research of Cochran (1996: 91) , which studied factors that related to studying further. The research found that the parents' level of education affected the decision to study further, because parents with a high education could advise their children about their education. They could transfer their experiences, viewpoints, opinions, and encourage students to see the value and benefits of education. The research of Seleh (1986: 151) which studied the expectations of teenagers, found that the parents' level of education had a direct effect on the expectation and the desire to study further. Through their support and encouragement, parents' advice on the different choices of education impacted on students. The research of Anotai Kitikornworkul (1998: 44) , which studied factors influencing the tendency of 9th grade students to study further, explained that the parents' level of education directly influenced the decision of students to study further.

This study reveals an interesting factor relating to the father's occupation. Students in education region 4 or the Central and Eastern regions whose father's

occupation was a government official, state enterprise official, or owner of a personal business would decide to study further 0.002 times more than students whose father's occupation was other than what was mentioned. However a similar relationship was not found in the other regions. This is because in the Central and Eastern regions, parents or the father usually worked in factories and had moved there from a different region, therefore their settlement was not permanent, and this affected the children's opportunity for a continuous high school and university education. However, a father whose occupation is government official, state enterprise official, or owner of a personal business were usually people in an area who were less likely to move to a different region, compared to students whose father provided hire services or work in factories, therefore their decision to continue further education was higher than the latter.

The study is in line with the research of Surat Chaiyachompoo (1992: abstract) which found that students whose domicile was in Bangkok decided to study further the most. The region that students decided to continue their studies the least was the Central region. This was because the Central region was where many small factories were located and most of the population in the area were non-permanent since they had moved from a different region to rent land. Students were less likely to continue their education and receive less encouragement and financial support from parents.

From the study, students in education region 3 or those in the Central, Eastern, and Southern regions whose mother's occupation was government official, state enterprise official or owner of a business would decide to continue their studies 0.041 times more than students whose mother had an occupation other than the above mentioned. This was because the three regions in education region 3 were where the parents had a better economic status than other areas, especially in a family whose mother was a government official, state enterprise official, or owner of a business. They were able to contribute more income to the family and support their children's education to the fullest. A link was formed between mothers and their children's level of education. This coincides with the research of Edwin (1966: 97) , which showed that the parents' occupation affected the level of students' education. Students would

give importance to their parents or the leader of the family by taking them as a role model in life, work, and education. They would study factors that led to their family's success. The research of Prayad Pandee (1992: abstract) studied the desire and the opportunity for university education and found that parents whose occupation were as government officials or owners of a business would support their children's education to university level.

The last factor which studied the variables, concerning the students' background, found that the students in education region 2 or the Northeastern region whose parents earned a high income would decide to study further more than students whose parents earned a low income. Parents whose income moves up 1 unit would increase the odds of students continuing their higher education 0.75 times. This was because parents of the students in this region were farmers and earned less income than those in the other regions. This decreased the chances of students to continue their education. They would see that higher education required a lot of money and families with low income already had other expenses such as rent, food, and medical care to cover therefore spending on education was second in importance. This was the reason why students whose parents earned low income did not decide to study further. Students whose parents earned more than 15,000 baht per month would decide to continue their studies.

This coincides with the research of Nunnally (1970: 98-99) , which found that a family's income had an impact on the opportunity of students to study further. Higher education required spending on activities that were essential to the progress and development of skills and abilities in the field of study. The research of Brockner and Guare (1983: 348) stated that the parents' level of education influenced the decision of high school students to continue their education at university. Some fields of study at university required the use of advanced technology, and budget for this expense is high. The difference between colleges and public or private universities is that reputable universities, that have been long established and are accepted by society and are known for excellence in academics, will have a higher tuition fees and expenses. Family income plays a major role in the support of student education. This

study found an interesting point regarding the attitudes toward education. Students in education region 3 or the Central, Eastern, and Southern regions, and students in education region 4 or the Central and Eastern regions, who have positive attitudes toward education, would decide to study further at university more than students with negative attitudes toward education. This is supported by the statistical data. If the attitudes toward education of students in the two regions moved up 1 unit, it would increase their odds of continuing further studies 0.796 and 0.689 times respectively for each region. From the result it can be concluded that society in the Central and Eastern regions have characteristics similar to a big city, especially the provinces near Bangkok. Bangkok is the center of Thai society, economy, and education. It is the hub of the labor market where various skills are in demand. This is the reason why students have positive attitudes toward education and see education as a tool in make a living.

The Southern region is where people have a high economic status, therefore students in the South need to learn to adjust themselves to a society where there is a high economic and social status. Adaptations have to be made in the way of life, viewpoints, and attitudes especially attitudes toward education, which is the foundation to making a living and raising the quality of life. This is in line with the research of Campbell (1994: 5) , which stated that attitudes toward education affect the motivation in learning and the eagerness to continue further education. Students did not study only to pass a course but to obtain the value of education, something significant in their life. This coincides with the research of Brockner & Guare (1983: 34) , which explained that the attitudes toward education determine the students' learning habits, their diligence, and their will to study. It would urge students to practice their way of thinking and use intelligence to create something beneficial and make decisions based on knowledge that follows righteous principles. Students with positive attitude towards education were more likely to study further. The research of Suthiphorn Chaiyabutr (1996: 44) showed that the attitudes toward the value of education is important in stimulating a positive habit in students and make them try to achieve their education goals.

The study also found that students in education region 4 or the Central and the Eastern regions who had positive attitudes toward stability and progress were more likely to continue their university education more than students with negative attitudes toward stability and progress. This is supporter by significant statistical data. For students whose attitudes toward stability and progress moved up 1 unit, the odds in deciding to study further would increase 0.696 times. A similar relationship cannot be found in the other regions. This is because the Central and the Eastern regions have characteristics similar to a big city. There is an inequality in the benefits from advanced development, materialism, and unequal distribution of income. Living in a big city is expensive and requires an occupation that is stable and income that can support the expenses. People and students in this region have to adjust their values, opinions and viewpoints in living their lives. They have to recognize the benefits of stability and progress in their careers and acknowledge how education can be used to gain stability in life. People who see the importance of having a positive attitude towards education will desire and decide to study further.

This is in line with the research of Gonzales (1994: 234) , which found that instilling the right attitude towards stability and progress in students would affect their grade point average and their desire to continue higher education. Moreover, the research of Olarinoly (1979: 125) found that people who took into consideration the progress in life were determined, enjoyed competition and had the motivation to study at a higher level.

However, the research found that students in education region 4 or the Central and Eastern regions, whose attitudes toward the people involved in the decision is high, were less likely to continue their higher education. For students whose attitudes toward people involved in making the decision moved up 1 unit, the odds of their decision to study further would decrease 0.295 times. This was because students from the Central and Eastern regions had a high confidence in themselves and were always trying to develop their skills and abilities. The characteristic of the region, which is much like a big city, is located near Bangkok. It enabled the students to receive news and information and get knowledge from various sources easily. They were more

likely to rely on different ways of getting information and were less likely to take advice from parents or teachers compared to students from other regions. They would decide for themselves therefore the advice or information from other people became less important. This is in line with Harris and Magaret's research (1996: 85) , which found that to attain information obout future education depended very much on the media. The teachers' roles are now to lead and introduce students to the means of getting the information. Therefore, the relationship between students and teachers would become weaker than in the past.

The last factor that affects the decision to study further of students is their attitude toward recognition and reputation. The result shows for students in education region 4 or Central or Eastern regions whose attitude toward education move up 1 unit, the odds of deciding to continue higher education would increase 0.366 times. This region has characteristics close to a big city where there is development and technology in various fields. There is constant development in the industries which generate jobs for the people. These jobs require labor with high technical skills. The economic model and the development the economy of a big city will help generate income and disseminate it to groups with a high education. People can elevate their level of economic and social status and will be recognized and appreciated in society. This coincides with the research of Woefel and Archibald (1971: 99) , which found that students who gave importance to fame and reputation were highly motivated in their studies. They were ambitious to succeed in life. The research of Darkenwald and Merrian (1982: 321) showed how the desire for education by adults to study at university was the desire to be accepted.

This study discovered that the level of self-acknowledgment, which included motivation for success, the belief in oneself, and self-improvement, did not affect the decision of students in all the regions to continue their studies. This was due to the fact that students who decided or did not decide to study all have motivation for success, the belief in one self, and self-improvement, namely all those characteristics and traits. Even though they did not get to continue higher education, they strove to improve and develop their potential by acquiring experience and knowledge from

work, outside the mainstream system, specifically education in life. This included knowledge from news and information that could be received through various media channels.

An interesting finding from this research shows that the decision of students in the different education regions to continue further studies depends on social and economic factors, characteristics of the city, and development of the different regions, as well as factors regarding the students' background and their attitudes toward education. The following findings can be adapted and used as a guide to lay policies to improve the conditions of education, and advise students or target groups in different regions on education clearly and concisely.

Table 4.6 Analysis on the Factors that Influence the Decision to Study or not Study Further Using Logistic Regression

Independent Variables	Model 1			Model 2			Model 3		
	b	SE	Odds ratio	b	SE	Odds ratio	b	SE	Odds ratio
Students' background									
Sex									
Male	.032	.230	.969	-.120	.244	1.127	-.138	.248	1.148
Female(Reference group)			1.000			1.000			1.000
Educational Regions									
Region1 (North)	-3.267***	.776	6.239	-2.928***	.798	8.697	-2.934***	.802	8.805
Region2 (Northeast)	-2.832***	.738	4.978	-2.466***	.746	7.77	-2.434***	.746	9.404
Region3 (Central ,East)	-3.216***	.762	6.933	-2.877***	.773	7.754	-2.859***	0.774	7.44
Region4 (South) (Reference group)			1.000			1.000			1.000
Age	.050	.150	1.051	.031	.156	.970	.016	.163	.984
Grade Point Average (G.P.A)	1.331***	.194	3.783	1.501***	.215	4.486	1.516***	.223	4.553
Father's Education									
Higher than middle School	.833**	.322	.435	.709**	.340	.037	.764*	.348	.466
middle School (Reference group)			1.000			1.000			1.000
Mother's Education									
Higher than middle School	.362	.332	1.437	-.367	.368	1.443	.424	.374	1.528
middle School (Reference group)			1.000			1.000			1.000
Father's Occupation									
Government Official , State Enterprise , Business Employees	-.393	.312	1.481	-.460	.330	1.585	-.455	.334	1.576
Agriculture, Providing services for hire, Others (Reference group)			1.000			1.000			1.000

Table 4.6 (Continued)

Independent Variables	Model 1			Model 2			Model 3		
	b	SE	Odds ratio	b	SE	Odds ratio	b	SE	Odds ratio
Mother's Occupation									
Government Official, State Enterprise, Business Employees	.971**	.322	.003	1.084**	.334	.338	1.028**	.349	.358
Agriculture, Providing services for hire, Others (Reference group)			1.000			1.000			1.000
Family Income	.594***	.135	1.811	.614***	.149	1.848	.619***	.150	1.857
Attitude toward Education									
Attitude toward the value of education				.060*	.026	.930	.069**	.026	.933
Attitude toward stability and progress				.132*	.053	.876	.127*	.054	.881
Attitude toward the people involved in the decision making				-.053	.032	1.055	-.064	.033	1.066
Attitude toward recognition and reputation				-.086	.054	1.089	-.098	.056	1.103
Attitude toward social and economical factors				.125***	.032	.883	.119**	.033	.888
Acknowledge Self-potential									
Self achievement							.011	.013	.988
belief in locus of control							.027	.031	.973
Self Development							-.004	.009	1.004
Constant	9.054***	1.033	.000	.490**	1.911	.613	-.033	1.972	1.034
2 Log Likelihood		620.734			556.605			553.234	
Model change (df)		180.362***(11)			244.491***(16)			247.862***(19)	
% classify correctly		89.300			91.700			92.200	

Significant level *p<.05v **p<.01 ***p<.001

Table 4.7 Analysis on the Factors That Influence the Decision to Study or not Study Further Using Logistic Regression Classifed By Regions

Independent Variables	Total			Region1 (North)			Region2 (Northeast)			Region3 (Central ,East, South)			Region4 (Central ,East)		
	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio
Students' background															
Sex															
male	.316***	.238	12.519	-1.227	.865	.156	.353	.367	1.423	.279***	.538	.756	.422	.823	1.556
female (Reference group)			1.000			1.000			1.000			1.000			1.000
Age	-.539	.257	.583	-2.231	.762	1.305	-1.084	.473	.338	-1.244	.466	.288	1.965	.772	7.132
Grade Point Average (G.P.A)	-1.864***	.347	.155	-	-	-	-1.545**	.514	.213	.646	.428	1.908	-1.873**	.780	.154
Father's Education															
Middle School higher	-.988**	.338	.372	-	-	-	-1.635**	.567	.195	-.979***	.715	.376	-3.272**	1.107	.038
Middle School (Reference group)			1.000	-	-	-			1.000			1.000			1.000
Mother's Education															
Middle School higher	.737	.376	2.091	-	-	-	-1.625**	.586	.128	1.301	.768	3.671	-2.385*	1.192	10.855
Middle School (Reference group)			1.000						1.000			1.000			1.000
Father's Occupation															
Government Official , State Enterprise ,Business Employees	.381	.335	1.463	-2.665	5.838	.070	.167	.564	1.181	2.782	.687	1.153	-6.165***	1.371	.002
Providing services for hire Agriculture and others (Reference group)			1.000			1.000			1.000			1.000			1.000
Mother's Occupation															
Government Official , State Enterprise ,Business Employees	-1.106**	.349	.331	4.452	5.787	1.801	-.635	.535	.530	-3.195***	.712	.041	3.934	1.070	1.114
Providing services for hire Agriculture and others (Reference group)			1.000			1.000			1.000			1.000			1.000

Table 4.7 (Continued)

Independent Variables	Total			Region1 (North)			Region2 (Northeast)			Region3 (Central ,East, South)			Region4 (Central ,East)		
	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio
Family Income	-1.201***	.337	.301	-.414	.650	.661	-2.587***	.585	.075	.412	.288	1.510	-1.328	.825	.265
Attitude toward Education															
Attitude toward the value of education	-.507*	.025	.944	-.121	.103	.886	-.025	.370	.975	-.228***	.065	.796	-.373**	.107	.689
Attitude toward Stability and Progress	-.110*	.050	.895	.104	.214	1.109	-.051	.820	.950	-.160***	.108	.852	-3.62*	.158	.696
Attitude toward the people involved in the decision making	.051	.027	1.052	.333*	.133	1.395	-.041	.045	.960	.486	.117	1.625	.831***	.194	.295
Attitude toward recognition and reputation	.060	.061	1.061	-.074	.168	.929	-.068	.086	.935	.214	.122	1.239	-.861***	.230	.366
Attitude toward social and economical factors	-.940**	.032	.911	-.039	.112	.724	-.082	.043	.921	-.040	.105	.961	-.222	.143	.801
Acknowledge Self-potential															
Self achievement	-.012	.012	.988	-.151	.068	.026	-.021	.170	.979	-.154	.093	.858	.077	.047	1.080
belief in locus of control	-.009	.029	.991	.054	.174	.756	.011	.430	1.011	.038	.022	1.038	-.172	.113	.842
Self Development	.005	.008	1.006	.081***	.022	1.085	-.170	.013	.983	-.214	.384	.005	.042	.029	.150
Constant	3.939*	1.732	1.353	-1.205	5.910	.300	10.890***	2.497	.000	-2.585*	.178	.075	-10.587*	5.004	.000
-2Log Likelihood		575.233			157.744			276.187			168.949			112.604	
Model X2 change(df)		225.863***(19)			71.437***(13)			138.954*** (16)			77.339***(16)			100.317***(16)	
% classify correctly		91.200			89.800			91.600			92.800			92.700	

Significant level *p<.05 **p<.01 ***p<.001

CHAPTER 5

RESEARCH SUMMARY AND SUGGESTIONS

The purpose of this chapter is to summarize significant findings from the research and suggest policies to increase the number of university graduates. It also serves to provide an impetus to further research.

Data from field research was used to conduct this study. A survey was completed on 431 male students and 785 female students who were studying in grade 12. The data represented students from around the country. Students were randomly selected according to education region, province, school, and class. The aim of the research was to study factors influencing the decision of students to continue their higher education. The focus is on three main factors that would influence the decision of the students to continue their higher education. These three factors were the students' background, attitudes toward education, and self-acknowledgement. From the revision of various works, factors of the students' background were directed to focus on the students' gender, age, grade point average, education region, parents' level of education, parents' occupation, and family financial status. For factors of attitudes toward education, the focus was on student attitudes toward the value of education, attitudes toward stability and progress, attitudes towards people involved in the decision making, attitudes toward recognition and reputation, and attitudes toward social and economic factors. Lastly, factors of self-acknowledgement focused on self achievement, belief in locos of control, and self-development.

Descriptive Statistics were used to analyze statistical data. It described the characteristics of students according to the independent and dependent variables. The outcomes were presented in the forms of frequency, percentage, average, and standard deviation. The study of the 3 factors influencing the decision of the students to continue their education was done by using Multivariate Analysis. Statistics used in this research came from the study of Logistic Regression. Multiple Regression analyzed factors influencing the decision of students of different education fields to

study or not study is further classified by regions. A Hierarchical Regression Analysis analyzed factors influencing the decision of all the students to study or not study further.

5.1 Research Summary

The analysis of statistical data of the grade 12 students shows that as high as 89.80 percent decide to continue their education at university. The result of the summary is divided according to the characteristics of the variables. The first is the students' background. Results showed that 35.4 percent were male students while 64.6 percent were female students. 58.1 percent of the students were between 16-17 years old. 53.8 percent had grade point average that fell between 2.00-2.99. The Southern region had the highest number of students deciding to continue their higher education, with 98.60 percent, while students from the Northeastern region had the lowest number to deciding to continue their higher education, with 86.91 percent. 49.0 percent of the fathers and 55.9 percent of the mothers' education level ended at middle school.

As for parent occupations, 28.7 percent of the fathers worked as government officials, state enterprise officials, or company workers, which was close to the 26.7 percent that work in agriculture. This was opposite to the mothers' occupation where 27.2 percent work in agriculture, while 26.2 own a small business. 31.5 percent of families earned an average income of less than 8,000 baht.

As to factors relating to attitudes towards education, 56.2 percent saw education as valuable and beneficial in their life. For attitudes towards stability and progress, 53.0 percent regarded education as an important factor in creating stability in life and progress in work. For attitudes towards the people involved in the decision making, 62.3 percent viewed people, whether it was their parents, siblings, friends, role models, or prominent people in society, As all having an affect on their decision to study further. For attitudes towards recognition and reputation, 69.2 percent believed that receiving a higher education can enable one to attain a reputable career

and be respected by society. Lastly, for attitudes towards social and economic factors, 57.5 percent saw that with a high education, they could obtain a good career that would eventually raise their economic and social status.

In factors relating to self-acknowledgement, the study shows that 54.1 of the students had the skills to acquire knowledge and self achievement 53.3 percent of the students were confident about their studies and had a high level of belief in the locus of control. Finally, 52.5 percent of the students had the ability to create self development.

In analyzing the information of students who decided or did not decide to study further following the characteristics of the first variable, which is the background of students, the result shows that 91.1 percent of female students decided to study further, while it was 87.5 percent for the male students. Results show 97.6 percent of students, whose grade point average was higher than 3.00, decided to continued their higher education more than students whose grade point average was less than 3.00. Students in the Northern and Southern regions with grade point averages higher than 3.00 all continued their higher education. The parents' level of education had a direct affect on the students' decision to study further. 95.5 percent and 94.6 percent of the students' fathers and mothers' whose level of education was middle school or higher would decide to continue their studies, especially students in the Northern and Southern regions who all decided to continue their higher education.

Besides the impact of the parents' level of education on the students' decision to study further, the parents' occupation was also a major influential factor. 95.6 percent and 93.9 percent of students whose father and mother work as government officials, state enterprise officials, company workers, or own a business had a higher opportunity to receive a university education. This was more than for students whose parents perform other occupations. The research notes how students in the Northern and Southern regions whose parents are government officials, state enterprise officials, or own a business all decided to study further. 96.6 percent of the students whose parents earned more than 15,000 baht received a high education, whereas in

the Southern region, students whose parents earn more than 15,000 baht, all decided to study further.

Factors concerning attitudes towards education found that 94.4 percent of students who saw the value of education, decided to continue their studies. This is because a person with a positive attitude towards education will aspire for more knowledge. They have the ability to think, analyze, and make decisions efficiently, and acknowledge the importance of education and the benefits it gives them on how to live their life and perform their jobs. Research shows 94.0 percent of students with positive attitudes toward stability and progress are those that are highly motivated, who stress achievement in their studies and career. They had a great desire to accomplish their certain goals, and would lay high standards for them. 91.7 percent of the students with low attitudes toward the people involved in making the decision were less likely to decide to continue their studies. This percentage was greater than the 88.6 percent of students with high attitudes for the same factor. Students in the Southern region with low attitudes toward the people involved in making the decision all decided to continue their higher education, where 91.1 percent of students with high attitudes toward recognition and reputation would decide to study further. Change happens rapidly in today's society. More people are migrating into Bangkok and into other big cities. There is also a high social mobility. Students are taught to be active and be determined to raise one's social and economic status. They see education as a vital tool that helps build a foundation of recognition and fame for themselves in the future.

The last factor on the attitudes toward education is the attitude towards social and economic factors. From the study, 93.0 percent of the students who had the desire to continue higher education would have the desire for a higher social and economic status as well. In this globalized world, people's lives are changing. People have to become more open the new inventions and technology that are being produced nonstop. More spending is now required to have a good and comfortable life. Since the economy is the driving force that develops a country and its society, students

realize that in order to have a better life, social and economic status is important. A higher education becomes a tool to increase their social and economic status.

For factors on self-acknowledgement, research shows 91.2 percent of students who decide to continue their studies had a high motivation. Students who are highly motivated are those who usually succeed in life and education. They are creative, and ready to learn and take in knowledge and information, and adapt them to use in their life. 90.4 percent of students who decided to study further had high self-empowerment. Students with high self-empowerment are those who believe in their abilities and view that success depends upon themselves, and not others. They are satisfied with their capabilities. These people believe that they have the ability to study and succeed at the highest level, and are usually determined to continue higher education. 91.2 percent of students who decided to continue higher education had a high self-improvement rate. Students who strive for improvement will have the motivation to develop their skills, and increase their knowledge and abilities. They will plan their studies and improve themselves to achieve the goal. They will learn to make the future better than the past, and most of them enjoy and are satisfied with their studies.

Hierarchical Regression Analysis was used to study factors influencing the decision of students to study or not study further at university. The test was done on the 3 factors, which were the students' background, attitudes toward education, and self-acknowledgment. Concerning the students' background, results show that factors influencing the decision of students to study further included their education region, grade point average, father's level of education, mother's occupation, and family income. Concerning attitudes toward education, factors influencing the students' decision include attitudes toward the value of education, attitudes toward stability and progress, and attitudes toward social and economic factors. The model used to study factors that influence the decision of students is 89.3 percent appropriate and 91.7 percent accurate in predicting the students' decision. Factors concerning self-acknowledgement do not influence the decision of students to continue their higher education.

When factors influencing the decision of students to study or not study further were analyzed according to education region using Logistic Regression, the following findings were discovered: Factors that influenced the decision of students in the Northern region to study further were attitudes toward the people involved in making the decision and self-development, which is 89.8 percent appropriate and accurate in predicting the decision of students to study further. Factors influencing students in the Northeastern region to study further included their grade point average, parents' level of education, and family income, with 91.6 percent accuracy in predicting students' decision to study further. Factors influencing student in the Central, Eastern, and Southern regions to study further included their gender, father's level of education, attitudes toward the value of education, and attitudes toward stability and progress, with 92.8 percent accuracy in predicting the students' decision to study further. Factors influencing students in the Central and Eastern regions to study further included their score report, parents' level of education, attitudes toward the value of education, attitudes toward stability and progress, attitudes toward people involved in making the decision, and attitudes toward recognition and reputation, with 92.7 percent accuracy in predicting the students' decision to study further.

This research is able to conclude that factors influencing the decision of grade 12 students to study or not study further, vary according to each region and depend on the students' background, and social and economic status. The different ways of thinking and cultures in each area contribute to the differences in the 3 factors, which are the students' background, attitudes toward education, and self-acknowledgement of students in each region which determine and drive the decision to study further at university. If factors influencing the decision to study further are known, we can respond to the needs of students and arrange an environment suitable to acquire those needs, which will increase the number of university students and graduates in the future and be an important force in developing the country.

5.2 Suggestions

The research on factors influencing the decision of grade 12 student to study or not study further found many interesting points. This part aims to offer useful suggestions from the study. The suggestions are divided into 2 parts: 1) Suggestions from the research and 2) suggestions for future research on this topic. Details are as follows:

5.2.1 Suggestions from the Studies

5.2.1.1 A budget should be assigned to publicize and encourage high school students to continue their further studies. This can be done by organizing activities that suit the characteristics of the students as well as their background, attitudes toward education, and self-acknowledgement so they will coincide with the students' needs and motivation. This is so that the value and importance of education can be cherished by students from each education region.

5.2.1.2 In some education regions, there are families facing financial problems where the parents' income is not enough to support and encourage students to study further, especially students in the Northeastern region. Because financial status determines and affects the students' decision to continue their education, government and related agencies should step in and lend a hand by setting up a fund to support underpriviledged students. There are many students who desire to continue their studies at university but cannot to do so because they lack the financial support.

5.2.1.3 In regions where the number of female students who decide to study further is low due to the social norms or religious beliefs their region holds, government and related agencies should promote an understanding of the value of education. This will lead to an equality of education for all people and raise the living standard, especially in the Southern region where gender affects the students' decision to study further.

5.2.1.4 Factors regarding family are very influential on the students' decision to study further, whether they are the parents' occupation, the parents' level

of education, or people involved in making the decision. Government and related agencies should be determined to solve problems of students that decide not to study further, because of their family, by publicizing and creating an understanding among parents who overlook the value of education and those with low education, whose profession does not require any academic skill about the importance of education. This is so that they can guide and support the decision of their children to continue further studies, especially students in the Northeastern region..

5.2.1.5 The development of the students and their potential influences the decision to continue further studies so parents, schools, related agencies and organizations must hold activities for students to support them to continuously develop their abilities. This can be done by teaching students to see the value of education and urge them to acquire new skills and knowledge. Also, to use teaching strategies that match the characteristics of each student to advance the process of their metal development and creativity. For example, students from the Central and Eastern regions have high attitudes toward the value of education, stability and progress, people involved in making the decision, and recognition and reputation. Therefore activities that were used to promote positive attitudes toward these factors should be applied to students of different education regions as well, to foster development and prepare them for further studies. This will also increase the number of students deciding to study further.

5.2.2 Suggestions for Future Studies

5.2.2.1 Research should be done by separating the students into groups studying science, humanities, and social science, and observe if there are any differences between the decisions of students in each branch to continue higher education. Today, most scholars are graduates of humanities and social science but the country is in need of those graduating in science and technology.

5.2.2.2 There should be continuous research on scholars who decide to study further to the level of Master's degree. This can be done by using students that are currently studying a bachelor's degree from every institution in Thailand, both

public and private. The purpose of the research is to respond to globalization and the age of technology where a highly intellectual workforce is required.

5.2.2.3 There should be a detailed study of the students by means of an in-depth interview and by pursuing them individually. Additionally, there should be a comparison between students who intend to study further and students who do not. Accurate information and true facts should be obtained.

5.2.2.4 There should be a long-term study on students who do not intend to study further or have not made their decision about their studies. If there are any changes in their decision to study further, those factors that influenced their decision should be studied. This is to know the variables and the motivation that affect their decision to study further. This information can help lay out a policy for increasing the number of undergraduates.

5.2.2.5 There should be a study on the students' desire to improve the university's curriculum to match their learning objectives in order to create motivation. It will also affect the success of students in their studies and increase the effectiveness of the education students received.

5.2.2.6 There should be a study on the needs of the labor market to precisely respond to the changes in society and economy and to make a correct analysis and business decisions. This will help provide students with more information on the opportunities and limitations of the labor market, and students can use this information to decide on their field of study and choose the ones that are most in demand by the labor market.

APPENDIX

Questionnaire

APPENDIX

QUESTIONNAIRE

Survey questions on factors influencing the decision of grade 12 students to continue their higher education. The survey is divided into 3 parts:

Part 1 Survey questions on the students' background information – answer in choices.
Part 2 Survey questions on the people involved in making the students' decision to study further at university.
Part 3 Survey questions on the knowledge and level of self development in students.

Part 1

Note Please mark / in the ( ) in front of the questions based on true facts.

1. Current school.....Province .....
   Field of study .....
2. Age.....Gender ( ) Male ( ) Female
3. Domicile.....
4. Current Grade Point Average (G.P.A)
   ( ) 3.00 or higher ( ) 2.00-2.99 ( ) 1.00-1.99
6. Father's highest education level
   ( ) Bachelor's Degree or higher
   ( ) Middle School or Junior Degree
   ( ) Lower than Middle School
7. Mother's highest education level
   ( ) Bachelor's Degree or higher
   ( ) Middle School or Junior Degree
   ( ) Lower than Middle School
8. Father's Occupation
   ( ) Government official ( ) State Enterprises official
   ( ) Company Employee ( ) Businessman
   ( ) Commerce ( ) Service
   ( ) Artist ( ) Agriculturist
9. Mother's Occupation
   ( ) Government official ( ) State Enterprises official
   ( ) Company Employee ( ) Businessman
   ( ) Commerce ( ) Service
   ( ) Artist ( ) Agriculturist
10. Parents or patrons' monthly income
    ( ) 30,000 Baht or Higher
    ( ) 15,001-30,000 Baht
    ( ) 8,001-15,000 Baht
    ( ) lower than 8,000 Baht
11. Decision to attend university
    ( ) Yes ( ) No

Students deciding to attend university, answer questions 12-14.
Students deciding not to attend university, answer questions 15-19.

For students planning to attend university

12. Faculty and university intending to apply
    1) Faculty.....University.....
    2) Faculty.....University.....
    3) Faculty.....University.....
13. Occupation of interest.....
14. Intention to study further in Master's Degree
    ( ) Yes, please state the reason.....
    ( ) No, please state the reason.....
    ( ) Not decided

For students planning not to attend university

15. Reasons for not attending university (can select more than one answer)
    ( ) lack of funds ( ) bored of education
    ( ) wants to get a job ( ) enjoy working more than learning
    ( ) parents wouldn't allow to study ( ) don't see the importance of studying
    ( ) Others please state the reason .....
16. The plan for the future of your education after having worked for a period of time
    ( ) haven't plan about education
    ( ) studying while working
    ( ) will definitely continue higher education
    ( ) will study further if opportunity comes up
    ( ) continue study if sees the significance of education
    ( ) will not continue to study
    ( ) continue to study if funds are available
    ( ) Others, please state the reason.....
17. Your anticipated profession after high school graduation.....
18. If opportunity comes up, what branch of study would you choose to apply and at which university?
    Faculty.....University.....
19. After how many years of an education break will you then return to pursue university education?.....

Part 2

Survey questions on the personal factors influencing the decision to study further in university of students, which will focus on the following 5 aspects: attitudes toward education, attitudes toward stability and progress, attitudes toward the people involved in making the decision, attitudes toward status and reputation, and attitudes toward social and economics factors.

Please mark / in the box to the right of the questions that best agree with your opinion.

Table 1 Attitude towards educational Value

	Attitude towards educational Value	**Opinion**				
		Completely agree (5)	agree (4)	Neutral (3)	disagree (2)	Completely disagree (1)
1	You will choose the field of study depending on your own interest					
2	You will choose the field of study according to your strengths and specialties					
3	Higher education is important to one's life					
4	You believe you have the knowledge to pursue a Master's Degree					
5	You believe you have the skills to pursue a Master's Degree					
6	Education depends on a person's behavior and character					
7	University education promotes innovative thinking					
8	Education enables students to think deeper and more diverse					
9	Education helps students keep up with the changing world and become up-to-date with news and current events					
10	Self taught education is as important as university education					

Table 1 (Continued)

	Attitude towards educational Value	Completely agree (5)	agree (4)	Neutral (3)	disagree (2)	Completely disagree (1)
11	Continuing education at a higher level is a challenging task					
12	Higher education is an interesting factor that increases a person's potential and skills in various areas					
13	Studying further is beneficial when applying for a job					
14	Higher education raises self-confidence					
15	Higher education helps see the value in oneself					
16	Higher education helps find new solutions to problems					
17	Higher education promotes independent thinking and opinion					
18	Location of university influences the decision to apply					

Table 2 Attitude towards security and progress

	Attitude towards security and progress	**Opinion**				
		Completely agree (5)	agree (4)	Neutral (3)	disagree (2)	Completely disagree (1)
1	Graduating from a university provides a better chance of getting a job					
2	Graduating from a university can help get higher paid jobs and raises the standard of living					
3	Studying further brings improvement in life					
4	Graduating from a university creates stability in occupation					
5	Studying further provide an opportunity for study trips and a chance to be trained at a broader field					

Table 3 Attitude towards persons influencing decision

	Attitude towards persons influencing decision	**Opinion**				
		Completely agree (5)	agree (4)	Neutral (3)	disagree (2)	Completely disagree (1)
1	Choosing to study further is a self-decision					
2	Parents play an important role in the decision to study further					
3	Siblings affect the decision to study further					
4	Peers influences the decision to study further					
5	Professors at university influences the decision to study further					
6	The decision to study further depends on a trend					
7	People, other than parents, who financially support education, are important in the decision to study further					
8	An appreciation for a role model is important in deciding to study further					

Table 4 Attitude towards honor and reputation

	Attitude towards honor and reputation	**Opinion**				
		Completely agree (5)	agree (4)	Neutral (3)	disagree (2)	Completely disagree (1)
1	Graduating from a university will bring honor and reputation to the family					
2	High education provides a better opportunity in getting a respectable career					
3	High education provides an opportunity to be self-employed and making a living according to one's own interest and ability					
4	High education provides a variety of jobs to choose from					
5	High education will make you become a role model for the younger generation					

Table 5 Attitude towards socio-economic status

	Attitude towards socio-economic status	Opinion				
		Completely agree (5)	agree (4)	Neutral (3)	disagree (2)	Completely disagree (1)
1	Parents with good economic status can financially support higher education for their children					
2	After receiving higher education and having a good occupation, it is easier to fit in the society					
3	Students can make a living while studying Master's Degree					
4	Parents with high education level will require their children to pursue higher education as well					
5	High education helps raise social status					
6	Education enables us to create and meet friends with similar education level					
7	Education makes us live in the society in an intelligent and clever way					
8	Education allows us to meet a spouse with similar education level					

Part 3

Survey questions on the knowledge and level of self development in students.
Please mark / in the box to the right of the questions that best agree with your opinion.
Note
5 points = most 4 points = most likely 3 points = medium
2 points = least likely 1 point = least

Table 6 Self achievement

	Self achievement	**Self achievement level**				
		most (5)	most likely (4)	medium (3)	Least likely (2)	least (1)
1	Self-study and self-research					
2	Acquire extra knowledge outside of class					
3	Study and follow the changes in society and world issues to adapt with classroom study					
4	Communicating with others correctly and appropriately					
5	Quick-witted in solving problems					
6	Attempt to accomplish hard work					
7	Not afraid to socialize and publicly express opinions					
8	Having appropriate behavior in every situation					
9	Having responsibility for others					
10	Able to collaborate various ideas together					
11	Able to take the idea into action					
12	Able to work with people who have different point of view					
13	Able to restrain emotions when being criticized					
14	Able to control reactions when being challenged					
15	Able to control emotions when encounter happiness, sorrow, or fear					
16	Able to use your knowledge to make an income while still studying					
17	Able to arrange monthly spending					
18	Able to solve problems without parents' support					
19	Able to think rationally and thoroughly before making a decision					

Table 6 (Continued)

	Self achievement	Self achievement level				
		most (5)	most likely (4)	medium (3)	Least likely (2)	least (1)
20	Able to sort good and bad friends					
21	Able to accept others' opinion					
22	Able to work with others					
23	Able to work with a different sex					
24	Behave and act according to the rules of society					
25	Responsible with the task given					
26	Able to adjust yourself to any environment					
27	Ability to use skills from the branch of study					
28	Able to adapt what has been studied to use in real life situations					
29	Able to memorize what the professors had taught					

Table 7 Belief locus of control

	Belief locus of control	**Belief locus of control level**				
		most (5)	most likely (4)	medium (3)	Least likely (2)	least (1)
1	Having confidence in your learning skills					
2	Having confidence in living your life					
3	Acknowledging the value of life					
4	Having a feeling that you can do something beneficial for society					
5	Believing that you are a good citizen					
6	The way you work is effective					
7	Satisfaction with most of the work that was done					
8	Feeling proud of the result of your work					
9	Feeling proud of the decisions that were made in the past					

Note: Please read the given messages and consider whether you are able to manage time efficiently. Please mark / in the box to the right based on true facts- only one mark per box.
Level of points:
Highest – spending the most time or about 90% or more on a task
High – spending a lot of time or about 75% on a task
Average – spending an average amount of time or about 50 % on a task
Little – spending little time or about 25 % on a task
Lowest - spending very little time or about 10 % on a task

Table 8 Self development

	Self development	**Spending Time level**				
		highest (5)	high (4)	Average (3)	little (2)	lowest (1)
1	Preparing for each lesson before entering class					
2	Studying ahead before starting a new subject					
3	Studying for exams					
4	Use free time to do extra research in the library					
5	Gathering information from various sources when doing a research or a project					
6	Talking with friends or doing other work while teacher is teaching					
7	Understanding the report topic before begin writing					
8	Revising what has been taught after class everyday					
9	Doing other work that is not homework after school					
10	Reading general books rather than reading academic books					
11	Discussing or consulting with friends about learning					
12	Listening to news on the radio					
13	Watching daily news on the television					
14	Reading the daily newspaper to keep up with current events					
15	Reading magazines for entertainment					
16	Reading academic journals for knowledge					
17	Watching movies at the movie theatre					
18	Hanging out with friends to do reports or do research for extra knowledge					
19	Exercise or play sports					
20	Entering class before the professor starts teaching					
21	Entering class after the professor started teaching					
22	Being involved in academic activities such as holding exhibitions to share knowledge with others					

Table 8 (Continued)

	Self development	**Spending Time level**				
		highest (5)	high (4)	Average (3)	little (2)	lowest (1)
23	Participating in community service activities such as volunteer camp to improve the rural areas or donating blood					
24	Participating in activities that supports arts and cultures such as performing a ceremony to show respect to teachers					
25	Participating in religious activities such as making an offer to monks on the school's foundation day					
26	Participating in activities to improve oneself such as entering into a program that educates about morality					
27	Participating in club activities that requires membership.					
28	Reading about philosophy and how to live a good life					
29	Reading about science and technology					
30	Trying to create motivation for oneself to succeed in studying					
31	Reading books about self-encouragement					
32	Discussing with others about self-encouragement					
33	Feeling despair, bored, and dejected					
34	Conversing with professors for help on the lesson or when doing reports					

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