

Improving Financial Literacy of Undergraduate Students with Supplementary Financial Lessons: A Case of Practical Economics for Daily Life

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Abstract – Financial literacy is a vital issue since individuals with financial literacy are able to manage their finance allowing them to live their lives stably with no worry about financial problems. Normally, courses provided by Department of Economics should include lessons to develop financial literacy of undergraduate students. This study aimed to compare financial behavior, attitude and financial literacy of 155 students who registered the Practical Economics for Daily Life Course before and after taking the course. The research instruments were a questionnaire and a test. The results revealed that the students increased their financial behavior and attitude after taking supplementary financial lessons in the course. Moreover, the result of the test about financial literacy showed that the students gained significantly higher mean score after taking the custom-made financial lessons. However, the posttest score, despite the fact that it was higher than the pre-test score, was considered not quite very high. The researcher suggests integrating more financial knowledge content in many lessons of the course or if possible, the department should consider having a separate course about financial literacy in the curriculum of the program.

Keywords – financial behavior, financial literacy, economics.

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1. Introduction

Nowadays, Thailand is facing several risky situations such as economic regression, deterioration of the natural resources and even more severe natural disasters. These gloomy situations have caused more and more suffering and harsh living. Food and many products have cost higher resulting in gradual increase of the cost of living. However, product advertising campaigns tend to encourage teenagers to place greater values on materialism. If teenagers are not careful in the way they spend money, they will face financial problems. It is very important to learn how to spend money wisely, how to save up money and be able to live their lives happily. It is suggested that the youth be educated about financial skills and develop positive attitude toward saving during their study. This is because when they graduate and start working, they will be ready to manage their own incomes and to avoid any kind of financial problems [1]. As Spann (2014) stated, factors affecting financial wellness included financial behavior, financial knowledge and financial attitude [2]. When the youth have adequate financial skills, they will grow up to be stable persons which will generate benefits to the country in general [3],[4],[5]. This is because it lowers a tendency to request a loan for investment to strengthen the national economy from foreign countries.

2. Literature Review

The Organization for Economic Cooperation and Development (OECD, 2015) provides a universal definition of ‘financial literacy’ and a worldwide acceptable guideline to assess financial skills. According to The Organization for Economic Cooperation and Development, ‘financial skills’ means awareness, knowledge, understanding, expertise, attitude and behavior leading an individual to have a positive financial judgment and good financial health in the end [6]. As Atkinson and Messy (2012) put up, measuring financial skills or

financial literacy is deemed important since it indicates how much knowledge of finance people in the country have [7], and results from the surveys have been used to help people improve the quality of life [8].

A Survey of Adult Financial Literacy Competencies, which was conducted by OECD (2016), asked 51,650 respondents whose age ranged from 18-79 years old in 30 participating countries. Among the 30 participating countries, 17 countries were affiliated with the Organization for Economic Cooperation and Development. The results of the survey revealed that the average financial skills score

of the participating countries was 132 while the average score obtained by Thai people was just 12.8 [9]. Bank of Thailand (2013) used the same survey to examine financial skills of Thai people to set a standard of the country and to compare it with other countries [10]. The main objective of the survey was to assess the level of financial skills of Thai people in three main categories: knowledge and understanding about finance, financial skills and behavior and confidence and financial attitude as shown in Table 1.

Table 1. The structure to assess financial skills

Financial skills (1 – 22 points)		
Knowledge about finance (0-8 points)	Financial behavior (0-9 points)	Financial attitude (1-5 points)
<ul style="list-style-type: none"> * Division * Time Value of Money * Calculating interest on a loan * Calculating principal and interest * Calculating compound interest * National Credit Bureau * Deposit protection policy 	<ul style="list-style-type: none"> * careful thinking before making a purchase * paying bills on time * closely monitoring your finance * Setting up a long-term goal * Making financial decisions and keep records of how much you spend and earn * Saving money * Comparing information before making a purchase * Never asking for a loan when not having enough to spend 	<ul style="list-style-type: none"> * Spending money produces more happiness than saving money

Source: Financial Consumer Protection Center, Bank of Thailand

The results of the survey showed that the average score of financial skills of Thai people was 12.90 (equal to 58.50%) while the average score of other participating countries joining the survey was 13.2 (equal to 62.30%). When the two scores were compared, it can be said that Thai people obtained lower financial skills score than people of other participating countries. When considering each component of the financial skills, Thai people achieved the average score of 3.70 out of 8 (equal to 46.80%) on financial knowledge, the average score of 5.90 out of 9 (equal to 65.60%) on financial behavior and the average score of 3.20 out of 5 (equal to 64.50%) on financial attitude. The result of the study pointed out that the most problematic issues for Thai people were calculating interest on a loan, calculating principal and interest, deposit protection policy and time value of money.

In addition, Fiscal Policy Office in corporation with Fiscal Policy Research Institute sponsored a research study conducted by Phosai (2015) [11]. The study was based on a project to provide financial education to Thai people in 2013 and later continued a project to provide financial knowledge and create

financial discipline for Thai people in 2014. The study aimed to create a guideline for educating Thai people about financial knowledge to develop financial skills in order to manage their finance efficiently, to have discipline with money, and to establish financial stability for their family and the country. The study was conducted nationwide with 6,000 samples in 2013. The target group was divided into 8 groups: 1) the youth who were still in school, 2) private sector (with social security provided), 3) freelance private sector with high income, 4) other private sector with low income, 5) farmers, 6) Government sector, 7) Family sector (family) and 8) media sector. Three main components of financial skills were examined: financial knowledge, financial behavior and financial attitude. The survey results showed that most of the Thais (69.6%) had moderate to low and low level of financial knowledge. Only 4.9% of the samples exhibited high and the highest level of financial knowledge. The results proved that the level of financial literacy of Thai people was quite low. This called for a serious improvement. When considered the level of financial literacy of each target group, it revealed that students in

vocational and university education, family sector, farmers and other private sectors with low income tended to have quite lower level of financial literacy than the rest of the groups.

Therefore, the government should aim to help these groups of people to improve their financial skills which are considered essential life skills. Working as a teacher teaching economics at a university level, the researcher realized the importance of this issue. Last semester the researcher had an opportunity to teach Practical Economics for Daily Life Course and would like to study financial behavior of the students taking the course. Having gained useful preliminary data from the students, the researcher then decided to create and add supplementary lessons to promote good financial behavior into the course syllabus. The aim of the lessons was to develop accurate financial knowledge and understanding.

Research objectives

1. To study financial behavior and attitude of undergraduate students before and after taking the Practical Economics for Daily Life
2. To compare financial literacy of undergraduate students before and after taking the supplementary financial lessons about financial skills in daily life

3. Methodology

3.1 Target group

This study is an experimental study. The target group in this study were 155 students who were taking the Practical Economics for Daily Life course in the summer session of academic year 2017. The course focused on three main topics: 1) demand, supply and equilibrium, 2) production function, total cost, total revenue, market structure, and 3) Gross domestic product, public finance, financial market, saving and investment, and international economics.

3.2 Treatment

The supplementary financial lessons that the researcher implemented and used as a treatment in this study were the lessons about saving and investment. The lessons were designed to teach the students to realize the importance of saving and learn different types of investment that generate higher return with high risk such as bonds or equities. A common saving equation is $\text{income} - \text{expense}$. However, the lessons emphasized on a new saving

equation which is $\text{income} - \text{saving} = \text{expense}$. With this equation, the students learned how to set up their financial planning by allocating some money to their saving before spending.

3.3 Research instruments

The instruments for data collection were a questionnaire and a test. The questionnaire which was used to assess financial behavior and attitude consisted of 10 5-rating scale questions (highly disagree to highly agree). As for the test to assess financial knowledge, it contained 10 questions, each of which provided 4 choices of answer. There was only one correct answer for each question.

3.4 Data collection

Data collection was divided into two phases: before and after taking the course. Before taking the course, the students were asked to complete the questionnaire and the test. After taking the course, they were asked to complete questionnaire and the test again. The same questionnaire and the test were administered for both times, however, the items and the choices appeared on both of the questionnaire and the test were shuffled.

3.5 Data analysis

Data of behavior and attitude obtained from the questionnaire were analyzed using mean and standard deviation and the results were compared to see the differences. Regarding financial literacy, comparisons between pretest and posttest data were made using t-test analysis.

4. Findings

Based on Table 2., the results of pre- and post surveys of their behavior were not much different. This indicated that students did not improve their financial behavior much after taking the course. When looking into detail, only three items increased in mean scores (no.1, 2, and 5). These included careful calculating that they have enough money to spend, searching for information before making a purchase, and setting up a long-term financial goal. However, items no. 3 and 4 indicated that students could not change their certain behavior. These included paying bills on time and closely monitoring finance.

Table 2. Means and standard deviations of financial behavior

Statement	Before		After	
	Mean	S.D.	Mean	S.D.
1. Before making a purchase, you have carefully calculated that you have enough money.	4.03	0.92	4.09	0.80
2. Before making a purchase, you have searched for information and made a comparison of many products.	3.90	0.99	4.02	0.84
3. You always pay bills on time.	4.05	0.89	4.02	0.83
4. You always closely monitor your finance	4.06	0.84	3.95	0.89
5. You have set up a long-term financial goal and try to achieve the goal.	3.80	0.92	3.88	0.88
Overall	3.97	0.64	3.99	0.65

Table 3. shows that the lowest mean scores of attitude before and after taking the lessons was item no.1. Before taking the lessons, students seemed to be happier with spending money now than saving money for future use, but after taking the lessons, their attitude has been changed to focus more on saving money for the future use. Moreover, the increases in mean scores of three items (no. 2, 3, 4) indicate that students had more positive attitude after

gaining knowledge. These included realizing financial planning, being proud of themselves when saving money, and having good knowledge of saving. However, the decrease in mean score of item no. 5 indicates that saving was less considered as financial stability for themselves and family after taking the lessons.

Table 3. Means and standard deviations of financial attitude

Statement	Before		After	
	Mean	S.D.	Mean	S.D.
1. Spending money at present produces more happiness than saving money for the future.	2.63	0.99	2.50	0.95
2. Saving money makes you realize financial planning and not to overspend.	4.02	0.83	4.13	0.80
3. You are proud of yourself when you can save money continuously.	3.94	0.86	4.13	0.83
4. You have good knowledge and understanding about types of saving.	3.52	0.87	3.77	0.86
5. Saving is financial stability for yourself and your family.	4.32	0.80	4.21	0.83
Overall	3.69	0.50	3.75	0.55

Table 4. demonstrates the results of t-test analysis of Financial literacy before and after the test. The mean score of the pre-test was 4.48 meaning that the students' financial literacy was low before taking the course. After taking the course, the mean score of

financial literacy increased to 5.54. Even though the students were able to achieve high score in the post test, the obtained score was not very high. Nevertheless, t-test analysis showed that the improvement was statistically significant.

Table 4. Results of t-test analysis of financial literacy

	N	Mean	S.D.	t	Sig
Pre-test	155	4.48	1.90	-4.57	0.000
Post-test	155	5.54	2.37		

5. Discussion

Based on the results of the questionnaire survey, a little increase in the mean score of behavior indicated that the prepared financial lessons could not change the students' behavior (Mean = 3.97, 3.99). These lessons might not be enough to enhance awareness of students' spending and saving. From this discovery, although students were careful with their spending and aware of the importance of saving, still they significantly lack financial knowledge and understanding. For example, they didn't know how to manage their money. This suggests that more lessons about financial knowledge are needed for the students.

The findings also revealed that students had good financial perspectives both before and after taking financial lessons (Mean = 3.69, 3.75) although there was not much difference in the mean scores. Surprisingly, saving was less considered as financial stability for themselves and family. This indicates that more financial knowledge should be provided for these students. As Spann (2014) stated, financial behavior, financial knowledge and financial attitude are very important because they were factors affecting financial wellness [2].

According to the test to assess financial knowledge before and after taking the course, it was found out that the test score was low (the mean score was 4.48 out of 10 points). It showed that the students had little financial knowledge. This finding corroborated the finding of OECD's study (2015) stating that Thai people have lower average score than other 30 sample countries [6]. After the students were taught financial knowledge about saving and investment and retook the test, it revealed that the students had moderate to low level of financial knowledge with the mean score of 5.54. It can be said that students improved their financial skills. However, the achieved score was not very high. This is due to the fact that the lessons about saving and investment were just a small part in the course. The

supplementary lessons that the researcher designed and put in this course might have been insufficient. Therefore, it is suggested that financial knowledge and investment be designed and provided as one separate course for students of all majors. The students should learn financial planning since university level before start working. It will also be a personal financial preparation for the aging society which is happening around the world.

6. Conclusion

After the students took the lessons, it was found that they had better financial skills and spending behaviors. When the students complete their degree and start working, they will be able to live their lives happily. Good financial skills such as having financial knowledge and good financial behavior and attitude will contribute to strong saving behavior. Therefore, it is very essential to educate and promote the teaching and learning about financial knowledge and skills by starting at a university level. When graduates start working, they can make use of the financial knowledge and skills to make good financial decisions [12]. It will also improve financial literacy of Thai people helping them to plan their saving for their retirement in the future.

7. Recommendation for future research

In this study, not quite much higher financial knowledge was achieved. Therefore, any interested researchers who would like to study this topic further should add more knowledge content into the lessons. Presenting just only one lesson is not enough for the students to significantly develop their financial skills. It is also important to provide financial knowledge constantly throughout the course. Having 10 question items on the test might be too few. More questions can be added to improve the quality of the test.

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