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EFFECT OF KWARTALINO FINANCIAL EDUCATION PROGRAM ON KINDERGARTEN LEARNERS' FINANCIAL KNOWLEDGE

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ABSTRACT

Over the past few years, there is an increasing demand to include financial education in schools and to start even among the youngest learners. This study examines the effect of Kwartalino Financial Education Program on the financial knowledge of kindergarten learners. The Kwartalino Financial Education Program was specifically designed for kindergarten learners. It has a number of special features such as 1) internationally benchmarked financial lessons and contents; 2) developmentally appropriate instructional materials; 3) varied hands-on and experiential learning activities; and 4) parent involvement. Using a quasi-experimental with pre- and post-test design with control and experimental group, the study examines quantitative data to analyze the effect of the program on learners' financial knowledge. The researcher developed a 40-item financial knowledge test which was used for pre-and post-test of kindergarten learners. The financial education program was implemented during the second quarter of the school year 2017 -2018 from August to October. Kindergarten learners who participated in the Kwartalino financial education program scored significantly higher than the control group in the financial knowledge test. Results of the study supports the idea that young children can learn money lessons when they are exposed to developmentally appropriate financial education program. Thus, the use of Kwartalino financial education program in the kinder level is recommended to integrate financial lessons which can help young learners develop their financial literacy.

Keywords: financial education, financial literacy, financial knowledge, kindergarten learners

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1. INTRODUCTION

Many educators agree that financial literacy should be developed among learners. There are a number of benefits when an individual is financially literate. First, financial literacy enables an individual to efficiently and effectively navigate through the complexities of present-day economic and financial systems. Second, it allows a person to be able to take charge and become responsible of their own finances, make sound financial decisions, manage household financial resources, acquire wealth, plan and save for retirement, and contribute to the economic good of one's country (Kefela, 2011; Fox, Bartholomae, & Lee, 2005; McCormick, 2009). Third, it also enables an individual to avoid unnecessary debts, minimize financial losses, prevent monetary mismanagement, and other financial frauds, traps, scams, and pitfalls. Finally, financial literacy is both a requisite and a vital aspect to becoming a good citizen (Lusardi; 2011; Kezar & Yang, 2010).

According to Organization for Economic Cooperation and Development- International Network of Finance Education (2012), "financial literacy can be defined as a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing". One important aspect of financial literacy is financial knowledge. Mason and Wilson (2000) state that financial knowledge involves understanding of financial concepts as it relates to personal finance and managing money. According to Álvarez and González (2017), it is the "financial awareness and understanding about the financial concepts and procedures as well as the use of this understanding to solve financial problems". Chowa and Osei-Akoto (2012) refer to financial knowledge as the "understanding one has of important personal finance concepts, like budgeting and saving". Increasing the financial knowledge of an individual is important as it affects one's financial literacy.

In the Philippine context, there are at least four pressing issues that relate to the need to increase financial literacy of its citizens and to offer financial education among young Filipino learners. First, Filipinos have a low level of financial literacy (Messy & Monticone, 2016; Yoshino & Morgan, 2015). Only 25% of Filipinos are financially literate based on the Global Financial Survey of 2014. Second, financial literacy translates into a better life and that financially literate youth grow into responsible citizens (APEC, 2014). Financial literacy can be one of the solutions to help alleviate Filipinos from poverty. The acquisition of financial literacy can help Filipinos correct financial misconceptions as well as unlearn and break away from unhealthy and erroneous financial beliefs, myths, and practices. Third, Filipinos need financial literacy to be able to take full advantage from the positive economic conditions present in the country. According to the World Bank Report of 2016, the country is considered as an emerging economy

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among Asian countries. To be able to benefit from these, Filipinos need knowledge to help them acknowledge and seize economic opportunities that are present in the country. Lastly, parents may not be equipped to teach financial lessons to their children, even if they are willing to do so. Silang (2016) comments that one of the major reasons why Filipinos fail to manage their finances is because Filipinos are not open to discuss money matters with their family members. Due to Filipinos' low level of financial literacy, it is likely that most parents may not be able to teach correct money-management skills among their children.

A number of steps are being undertaken to increase the financial literacy of Filipino citizens. One of these is the approval of two laws which serve as the legal bases and foundation of financial literacy and financial education in the country. The first is Republic Act 10679 of 2015 known as the Youth Entrepreneurship Act which states that, "promotion of youth entrepreneurship and financial literacy program shall be inculcated in all levels of education nationwide." The second is Republic Act 10922 known as the "Economic and Financial Literacy Act. In this law, the Department of Education is in charge to provide opportunities for students in all levels to learn financial lessons and integrate financial literacy as part of formal learning.

In 2016, the Department of Education included financial literacy and consumer protection lessons in senior high schools. The course was taught using modules following the OECD-PISA Framework and was part of the *Edukasyong Pantahan at Pangkabuhayan* (EPP) and Technology and Livelihood Education (TLE). The classes were implemented in one or two-hour sessions in a week. This is in accordance to Republic Act 10679 – Youth Entrepreneurship Act (Dones, 2016).

Another major step done by the Department of Education in integrating financial literacy in the Philippine basic education curriculum is the creation of a technical working committee. The group is tasked to 1) formulate and adopt policies on institutionalizing financial literacy program for all learner, which includes financial education, consumer protection, and entrepreneurship; 2) establish delivery mechanisms and support to the implementation of a financial literacy program; and 3) collaborate with the *Bangko Sentral ng Pilipinas* (BSP) and other institutions in the delivery and implementation of the program (DepEd Memorandum No. 110, s. 2017).

It is in this backdrop of the status of financial literacy and financial education in the Philippine context in which this study was conducted. This study aims to examine the effects of a financial education program for kindergarten learners. Further, the study sought to answer the following questions:

- Is there a significant difference on the financial knowledge between the experimental and control group before the implementation of the financial education program?

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- Is there a significant difference on the financial knowledge between the experimental and control group after the implementation of the financial education program?
- Is there a significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program?

Based on these questions, the following hypotheses are presented:

- H_o: There is no significant difference on the financial knowledge between the experimental and control group before the implementation of the financial education program.
- H_o: There is no significant difference on the financial knowledge between the experimental and control group after the implementation of the financial education program.
- H_o: There is no significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program.

2. LITERATURE REVIEW

Sari, Fatimah and Suyanto (2017) conducted a study on the effects of a voluntary financial education program on the financial knowledge of elementary pupils. The financial education curriculum is integrated in mathematics, Indonesian language, or arts. In addition, the program used different strategies on the delivery of instruction such as lecture, worksheet, IT-based educational games and stories. The study used an experimental method with a pre-and post-test design. Participants of the study consist of pupils from Grade 1 to Grade 6.

Result of the study shows that the treatment group performed better than the control group. Based on the study, the researchers assert that voluntary financial education program can have a positive impact on the financial knowledge of elementary pupils in emerging economies. They believe that a well-supported financial education program can be offered at an early age and it can be a good foundation for cumulative learning among children. Likewise, the researchers also emphasize the important role of parents in imparting financial knowledge among their children as they are considered to be the primary role models in a child's life. Also, the school has an important role in educating pupils, as some parents are not confident or may be unqualified to teach financial lessons because of their own inability to manage their own finances.

Kalwij, Alessie, Dinkova, Schonewille, Van der Schors, and Van der Werf (2017) conducted a study on the effects of a financial education program to fifth and sixth grades of Dutch primary schools. A pre- and post-test with treatment and control group was utilized in the field experiment. In their field experiment, participants took an eight-item test on financial literacy.

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Then, a financial education program in a form of a game - Cash Quiz, was implemented for the treatment group. The game includes questions which fall into four themes – 1) Bank, money, and transactions; 2) Planning and managing; 3) Savings, borrowing, risk and reward; and 4) The financial landscape. These are based on the Organization for Economic Cooperation and Development-International Network of Financial Education (OECD-INFE) Financial Curriculum. The game lasted for about 45-minutes where children play between groups and winning members receive plastic bracelets as prizes.

Result of the study shows that the financial education program led to an increased score of fifth and sixth graders in their pre- and post-test performance. It also raised fifth graders' inclination to save by seven percentage point. However, the researchers caution that the effectiveness of the program is limited to the questions directly addressed in the content of the financial education. Another limitation of the study is that it only measured the short-term effects of the Cash Quiz on the learners' financial knowledge. Furthermore, the researchers also point that the increase in performance might be caused by the students' motivation to acquire prizes and not necessarily about attaining the goal of financial education which is to gain knowledge of financial topics. Thus, the researchers suggest the evaluation of financial education programs like Cash Quiz by looking at the psychological factors related to financial empowerment.

Sherraden, Johnson, Gio, and Elliot (2011) examined the effects on financial knowledge of a school-based financial education program and savings program. The researchers used a financial education program – "I Can Save" (ICS) program. In this program, participants were provided with financial education through a classroom-based curriculum, a savings account with matched savings for all deposits, and attendance to a once-a-week voluntary "I Can Save" club throughout the school year. The study used a quasi-experimental design with treatment and control group. Quantitative and qualitative data were collected in the study. Financial knowledge test, interviews with the students in the ICS program, and teacher focused groups were conducted.

Result of the financial knowledge test shows that students who joined in the ICS program scored significantly higher than the comparison and non-study group on all topics. Specifically, the treatment group scored significantly higher on income questions than the comparison group. Analyzing qualitative data has shown positive effects on treatment group. They had a larger economic vocabulary; talk more about spending and saving; and are more confident in applying what they have learned in real-life settings. Also, some evidence shows that having a savings account inspired and motivated the participant to gain more financial knowledge. Likewise, children who participated in the study were enthusiastic to learn financial concepts; they have formed elaborate connections between the ICS activities and financial concepts; they have better understanding of financial services and an understanding of making savings deposits. From the

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study, the researchers offer two policy innovations regarding financial education – 1) provision of formal financial education to all children; and 2) access to financial services for all children through a savings account.

A study was conducted by Walstad, Rebeck, and MacDonald (2010) to determine the effects of a financial education program on the financial knowledge of high school students. The study examined the Financing Your Future (FYF) program – a DVD-based personal financial education program intended for teachers' use in teaching financial lessons to their students. Aside from the videos, the teachers also had printed lessons to supplement the content of the topics presented in the program. Teachers who conducted the lessons were given a three to four hours of training on how to use the instructional videos inside their classroom. The study used a quasi-experimental design with treatment and control group with pre-and post-test design. The program was conducted and run for two-weeks to a month depending on the length of class sessions and daily teaching schedules. A thirty-item multiple choice financial knowledge test based was used as a pre-and post-test of the participants. The researcher used t-test and regression analysis to analyze the result of the pre-and post-test score of the treatment and control group.

Results of the study show that before the implementation of the financial instruction, the two groups have almost the same financial knowledge level. However, after the implementation of the personal financial education program, findings show that the pre-and post-test of the two groups are different. The treatment group scored significantly higher than the control group. In addition, the result shows that the treatment group had an improvement in all the concepts presented in the video program. Even after controlling for other variables such as type of high school course, gender, educational level, educational or work plans after high school, work history during high school, credit card uses, and teacher effects, the results showed that the program implementation had positive effects on the treatment groups' financial knowledge. Likewise, financial education taught across different subject areas can improve students' financial knowledge. Walstad et al. (2010) conclude that a well-designed personal financial education program does influence the financial knowledge of high school students. It can improve students' financial knowledge and prepare them to better understand of the financial world they will engaged with later in their lives.

Grody, Grody, Kromann, and Sutliff (2008) examined the effectiveness of providing financial literacy and financial services program for elementary learners. The researchers believe that providing learners with developmentally appropriate learning materials will enable students to understand essential concepts of personal finance.

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In their study, 31 Grade 3 students were given a pre-test both to experimental group and control group. The questionnaire is a 24-item multiple choice type of test. After conducting the pre-test, the experimental group was taken to a library and the school librarian read the story entitled "Where the Money Grows". Then, both the experimental and control group were given a re-sequenced financial questionnaire as a post-test. After the post-test, both the experimental and control group visited a bank. Children were given a copy of the book which is meant to be read at home; a cartoon figure money locker boxes for savings; a parent invitation to revisit a bank; and a parent questionnaire to determine the effectiveness of the program. The students were also provided to an initial product exposure at bank – ATM machines, teller stations, coin counting machines, etc.

Result of the study shows that the experimental group had a significant improvement in learning from a single reading of the story compared with that of the control group who did not listen to the story. In addition, the result of the study shows that students are already familiar with the use of ATM cards; they have better understanding of financial concepts such as interest, credit, and savings; an emerging awareness on the concept of borrowing money from the bank as well the concept of saving and banks as places to save.

Based on the study, Grody et al. (2008) suggest the use of simple, concrete visual, and experiential methods in teaching financial literacy lessons. They assert that financial education can be delivered by utilizing a school librarian's reading program so as not to consume too much time of other academic subjects. Lastly, the researchers also recommend the use of workbooks for teachers and parents in order to reinforce financial concepts children learn from books.

These studies support the idea that financial education can be taught among learners and teaching financial lessons among students can improve their financial knowledge. However, research regarding the effects of financial education among young learners, specifically in the kindergarten level are very few. Therefore, this study aims to add to the growing body of literature on the area of financial literacy and financial education among young learners.

3. STUDY DESIGN AND RESEARCH METHOD

3.1 Program Description

This study is based on the financial education program conducted to a public kindergarten class in the school year 2016-2017. The program is entitled Kwartalino Financial Education Program for Kindergarten Learners. Kwartalino comes from two Filipino words – "*kwarta*" meaning money, and "*talino*" meaning intelligent. The title captures the overall goal of the program which is to develop money-intelligent Filipino children. The program was taught during the second

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quarter (August – October) with the theme – I belong to a family, which includes lessons about kinder learners and their family.

The contents of the program are based on three international financial education standards – 1) Jump$tart Coalition's National Curriculum in K – 12 Personal Finance Education 2015; 2) Child and Youth Finance International (CYFI) Education Learning Framework for Financial Education 2012; and 3) The National Financial Literacy Framework and Standards by the National Financial Educators' Council (NFEC). The program is composed of seven financial education lessons: 1) Needs and Wants (*Kailangan at Gusto*); 2) It's Fun to Share (*Masayang Magbahagi*); 3) Work to Earn (*Magtrabaho para Kumita*); 4) Be Careful (*Maging Maingat*); 5) Money to Spend (*Pera Pambili*); 6) Saving is Important (*Mahalagang Mag-ipon*); and 7) Helping Others (*Tumulong sa Kapwa*). These money lessons are integrated in the learning domains or subject areas taught in the kindergarten class.

Integration of the financial lessons was conducted in only one day for each week. Table 1 shows the kindergarten blocks of time and the Kwartalino integration and lesson implementation.

Table 1: Kinder blocks of time and the Kwartalino Integration and Lesson Implementation

Kinder Daily Blocks of Time/ Schedule	Minutes	Kwartalino Integration and Lesson Implementation
1. Arrival Time	10 minutes	
2. Meeting Time 1	10 minutes	
3. Work Period 1	45 minutes	
4. Meeting Time 2	10 minutes	
5. Recess	15 minutes	
6. Quiet Time	10 minutes	
7. Stories/Rhymes/Poems/Songs	15 minutes	I. Story Telling A. Pre-Reading Activities B. During Reading Activities
8. Work Period 2	40 minutes	C. Post-Reading Activities II. Discussion
9. Indoor/Outdoor Games	20 minutes	III. Enrichment Activities
10. Meeting Time 3	5 minutes	

As can be seen from Table 1, the kinder daily schedule lasts for three hours daily. In here, the implementation is designed not to take the entire schedule of the kindergarten class. Instead the

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lesson begins during the middle of the kinder schedule and lasts for only about seventy-five (75) minutes or one hour and fifteen minutes.

Each financial lesson starts with a story read aloud to the learners using a big book as a springboard. These stories are originally written to teach the seven financial lessons integrating at the same time language lessons based on the kinder curriculum. After reading the story, the teacher asks questions related to the story in order to present the financial lesson for the day. The teacher then discusses and explains the financial concepts to the class providing real-life examples and illustrations relevant to the lives of the learners. Then, the teacher provides varied activities to enrich the lesson through games, role play, simulations, and experiential activities.

The program also includes a learner's workbook which has three different activities for each lesson. The first activity entitled "Study this" (*Pag-aralan*) was answered inside the classroom with the guidance of the teacher. The second activity entitled "Do with Dad and Mom" (*Isama si Tatay at Nanay*) was answered at home with the assistance of the parents or guardian of the child. This activity serves as a connection of what has been learned in school to be supported with the guidance of the parents. This way, the parents are actively involved in the financial education of their child. The last activity entitled "Think and Do" (*Pag-isipan*) was answered by the learner with minimal or no assistance from the parent or guardian. These activities are meant to make the child think critically, and reflect on what he/she has learned from the financial lesson.

The program ran for one quarter (August – October) including the orientation to the teachers and parents, pre-test, implementation of the program, post-test, and closing program.

3.2 Research Methodology

The study utilized a quasi-experimental with pre-and post-test design with control and experimental group. Two kindergarten classes were randomly selected from eight morning classes in a public school in Muntinlupa, Philippines. The class which was assigned as the experimental group is composed of 38 learners while the class which was assigned as the control group is composed of 36 pupils. All of the learners in the experimental and control group were five years old at the time of their entrance in school in June 2017.

Both classes are taught the same contents as provided in the kindergarten curriculum. However, for the experimental group, financial lessons were integrated in the subject areas and learning activities also included financial concepts and lessons. Table 2 shows the comparison of treatment between the experimental and control group.

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Table 2: Comparison of the Experimental and Control Group

Experimental Group	Areas:	Control Group
• Kinder curriculum with Kwartalino Program integration	Learning Contents	• Kinder curriculum
• Original Financial Education Stories • Kwartalino Learner's Workbook	Instructional Materials	• Stories suggested in the Kinder Teacher's Guide • Teacher-made activity sheets • Downloadable worksheets in the internet.
• Games • Manipulatives • Hands-on and Experiential Activities (with integration of financial lessons)	Learning Activities	• Games • Manipulatives
• Answering of Kwartalino Learner's Workbook activity with parents' or guardians' guidance	Parent Involvement	• Teacher-made homework activities with parents' or guardians' guidance

3.3 Data Collection

The study utilized a financial knowledge test for kindergarten learners. This financial knowledge test was developed to be used for the pre-and post-test both for the experimental and control group.

Kwartalino Financial Knowledge Test

A financial knowledge test was constructed for the pre-and post-test of the experimental and control group. This financial knowledge test is based on the seven financial topics that are included in the financial education program. A Table of Specification (TOS) was constructed as a guide in developing the financial knowledge test and also to establish the validity of the test. The test consists of items based on the seven financial lessons included in the financial education program.

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According to Huston (2010), specialists recommend that the minimum number of items needed to measure a specific factor has to be between three and five. For this financial knowledge test, five to six items were constructed for each lesson. The test is a forty (40) item multiple choice type of test. Each item has one question and three choices. There is only one correct answer and the other two options are wrong answers. After construction, a copy of the test was given to experts for validation. Their comments and recommendations were considered in revising the financial knowledge test.

A letter of request was given to the principal of another public elementary school to conduct the pilot-test to establish the reliability of the test. Upon granting the approval, the researcher sent letters to parents of kindergarten learners coursed through the class advisers. Pilot-test of the financial knowledge test was conducted. One hundred kindergarten learners participated in the pilot-testing. After the pilot-testing, the test papers were checked and scores were encoded. To determine the reliability of the financial knowledge test, Cronbach alpha was computed using SPSS v. 23. The computed Cronbach alpha for the forty-item test was .73, which indicates that the formulated Kwartalino financial knowledge test has reasonable or acceptable internal consistency reliability (Sharma, 2016). The test was used for the pre-and post-test of the experimental and control group. Table 3 shows the result of the Cronbach alpha.

Table 3: Cronbach Alpha of the Kwartalino Financial Knowledge Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
.733	.733	40

This demonstrates the idea of applicability of the test items to the participants' understanding as well as the internal consistency of the test concerning the effectiveness and truthfulness of each item. Thus, the financial knowledge test was used for the pre- and post-test of the experimental and control group.

The Kwartalino financial knowledge test was administered a week before and after the implementation of financial education program. During the administration of the test, the test questions and choices was read to the kindergarten learners since they are not yet able to be read. The learner will then encircle his or her answer. After the test, the learner will go back to the classroom and another child is called to take the test.

The researcher used quantitative data to assess the effect of the Kwartalino financial education program on kindergarten learners' financial knowledge. Independent sample t-test was used to

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determine the difference of financial knowledge between the experimental and control group in their pre-test and post-test. A paired t-test is used to compare two population means where you have two samples in which observations in one sample can be paired with observations in the other sample (Shier, 2004). Paired t-test was utilized to determine if there was any significant difference on the mean score of the experimental group in their pre-test and post-test and determine the impact of the financial education program on the financial knowledge of the learners. In addition, Cohens' d was also computed. "Cohens' d is a measure for effect size in terms of the number of standard deviations that mean scores have shifted above or below the population mean stated by the null hypothesis. The larger the value for *d*, the larger the effect size in the population" (Privitera, 2016). In educational research, effect sizes of 0.20 or less are considered small and of no practical importance; 0.50 are considered of medium and have practical significance; and 0.80 or greater are considered large significance (Aron, Coups, & Aron, 2011).

4. RESULTS

The experimental and control group were given a pre-test using the Kwartalino Financial Knowledge Test. Data were examined to check if the variables are normally distributed using Shapiro-Wilk test. Test of normality results show that there are no problems with normality (p-values>0.05) which implies that the data for this study was considered adequate for parametric tests. Table 4 shows the result of the test of normality.

Table 4: Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Pvalue
Pre-test scores	.980	74	.291
Post-test scores	.977	74	.207

4.1 Is there a significant difference on the financial knowledge between the experimental and control group before the implementation of the financial education program?

An independent sample t-test was used to compare the pre-test of the experimental and control group. Table 5 shows the result of the independent sample t-test for the experimental and control group.

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Table 5: Independent sample t-test for the Experimental and Control Group

	Experimental (n=38)		Control (n=36)		Mean			
	Mean	**(Std. Dev.)**	Mean	(Std. Dev.)	**Difference**	**t**	**df**	**pvalue**
Pre-test Total	20.89	(2.82)	20.86	(3.45)	0.03^{ns}	0.05	72	0.963
Post-test Total	30.71	(2.94)	26.17	(3.39)	4.54^{**}	6.17	72	<0.001

** Significant at 0.01 level; ns – not significant

The mean pre-test score of the experimental group is 20.89 while the control group is 20.86. The mean difference between the two group is 0.03. Based on the result of the mean pre-test scores of the experimental and control group, it can be inferred that their scores are not significantly different (t=0.05, pvalue=0.963). Thus, the first null hypothesis is accepted which states that there is no significant difference on the financial knowledge between the experimental and control group before the implementation of the financial education program. This also means that the two groups have almost the same level of financial knowledge at the onset of the program.

4.2 Is there a significant difference on the financial knowledge between the experimental and control group after the implementation of the financial education program?

Based on the data on Table 5, the mean post-test score of the experimental group is 30.71 while the control group is 26.17. The mean post-test scores of the experimental and control group are significantly different (t=6.17, pvalue<0.001). On the average, the post-test scores of the experimental group is significantly higher by 4.5 points compared to the control groups scores. Furthermore, Cohen's effect size value (d = 1.43) suggested a high practical significance which tells us that the difference between these two groups is large. Specifically, an effect size of 1.4 means that the score of the average person in the experimental group is 1.4 standard deviations above the average person in the control group. Hence, the second null hypothesis is rejected which states that there is no significant difference on the financial knowledge between the experimental and control group after the implementation of the financial education program.

4.3 Is there a significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program?

Another measure used by the researcher is the paired sample t-test. This intends to determine the impact of the financial education program to enhance the learners' financial knowledge. Table 6 shows the result of the paired sample t-test of the experimental group before and after the implementation.

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Table 6: Paired sample t-test for the Experimental Group

Experimental	Mean	Std. Deviation	Mean difference	Std dev	t	df	pvalue
POST	30.71	2.94	9.82	1.77	34.22	37	<0.001
PRE	20.89	2.82					

Results of the paired t-test show that the experimental group has a significant increase in their post-test scores from their pre-test scores. The experimental group have an average increase of 9.8 points. Therefore, the third null hypothesis is rejected which states that there is no significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program. The results in the experimental group imply that the program did increase the financial knowledge level of the respondents. In addition, Cohen's effect size value (d = 5.55) suggested a high practical significance which tells us that the difference between the post-test scores and pre-test scores is large. Specifically, an effect size of 5.55 means that the average financial knowledge of the experimental group after the program is 5.55 standard deviations above their scores before the program.

5. DISCUSSION

The study aimed to examine the effects of the Kwartalino financial education program on kindergarten learners' financial knowledge. Based on the result of the financial knowledge test, kindergarten learners in the experimental group scored significantly higher than the control group in their post-test score. Additionally, the experimental group also scored significantly higher in their post-test scores from their pre-test scores. Further, Cohen effect size shows that the increase in score can be attributed to the implemented financial education program. Similar to the study of Sari et al. (2017), Sherraden et al. (2011), Walstad et al. (2010), and Kourilsky (1977) result of this study supports the idea that providing developmentally appropriate financial education program can increase the financial knowledge even among young learners.

The positive effects of the Kwartalino financial education program on kindergarten learners' financial knowledge can be attributed to the design and features of the program. First, the contents of the lessons were carefully chosen and are based on international financial education standards which are mapped and integrated in the Philippine kinder curriculum. This is in line with the findings of Totenhagen, Casper, Faber, Bosch, Wiggs, and Borden. (2015) which explicates that one of the best practices on the delivery of financial education program is the establishment and alignment with standards and benchmarks.

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Second, financial lessons were not isolated from other subject areas in the kinder class. Instead, it was seamlessly integrated throughout the discussion and activities of the lessons. It also supports the belief that financial education can be delivered through integration in other subject areas in the elementary level (Walstad et al., 2017; Birbili & Kontopoulou, 2015; APEC, 2014; OECD, 2012, 2008; Van Fossen, 2011; Hilgert & Hogarth, 2003).

Third, varied instructional materials were used to present the financial lessons to the class. The use of stories is based on literature describing the benefits of using stories in teaching financial lessons to young learners (Koh, 2016; Birbili & Kontopoulou, 2015; Tisdell, Taylor & Forté, 2013; Van Fossen; 2011). In addition, the program also utilized a learners' workbook which served as an enrichment activity bridging what the children have learned in school and at home.

Fourth, the financial education program also made use of varied learning activities to make the learning interesting, and motivating. The use of games, role plays, simulations, experiential and hands on activities, and collaborative activities made the presentation of the financial lessons a fun and enjoyable. This supports the proposition on the use of experiential learning (Collins and Odders-White, 2015); on the use of interactive, experiential, and hands on activities (Birbili & Kontopoulou, 2015); and financial education interventions that are interactive, relevant, and fun (Ci Research, 2012).

Lastly, Kwartalino financial education program also involved parents on teaching financial lessons to their children. This is based on the recommendation of Van Campenhout (2015) who proposes that financial education program should value the important role of parents. With the use of the learners' workbook, parents were given an opportunity to talk about family financial matters and values. The learners' workbook also served as a guide for the parents on what financial lessons and activities are appropriate to be taught among young learners in their age. This provided a chance for the parents to explain to their children their unique family financial context which makes the lessons more relevant and meaningful to the children.

6. CONCLUSIONS AND RECOMMENDATIONS

This study examined the effect of a financial education program on kindergarten learners' financial knowledge. Findings of the study shows that the experimental group scored significantly higher in the financial knowledge test compared to the control group. Result of this study is aligned to other previous studies which purports that a well-designed financial education program can increase learners' financial knowledge (Sari et al., 2017; Sherraden, et al., 2011).

This study adds to the growing body of literature that supports the idea that financial literacy can be taught among young learners and that the school has an important role play in providing

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developmentally appropriate financial lessons among students (Sari et al., 2017). Moreover, financial education program targeted at young learners should be designed taking into consideration children's economic understanding and that the program should be age-appropriate (Birbili & Kontopoulou, 2015; Walstad et al., 2017). Further, financial education programs should also be based on established standards, utilize varied instructional activities that are relevant and meaningful to the students, and provide different learning activities that will motivate and engage children to learn the lessons. Finally, financial education programs should include a feature which provides opportunities for parents to be actively involved in the financial education of their children. Many advocates of financial education also propose that financial education programs for young learners should include parents and their family.

Based on the results of the study, the researcher offers a number of recommendations. First, teaching financial literacy lessons among kindergarten learners can build a good foundation in their cumulative learning of financial matters. Teachers can integrate financial lessons in the kindergarten curriculum, provide learners with hands-on and experiential learning activities as well as developmentally appropriate instructional materials to encourage and motivate kinder to learn financial lessons. Teachers can also use the Kwartalino Financial Education Program to teach and integrate financial literacy lessons since the program provides a complete package in introducing financial lessons in the kindergarten level.

Second, parents are considered to be the primary models and the most significant and influential persons in the lives of children. Based on the result of the study, it is highly recommended that parents provide opportunities for children to learn age-appropriate lessons about their family resources, including money. Parents should also include children in discussing family financial concerns like budgeting, goal-setting, spending decisions, and saving in a way that is appropriate to the level of understanding, ability, and capacity of the child. It is also recommended that parents should be good financial models to their children since financial habits, skills, and attitudes are formed early in life.

Lastly, the Economic and Financial Literacy Act of 2015 provides financial literacy and financial education a space in the educational system of the country. This means that the Department of Education is mandated to offer financial education among Filipino learners across grade levels that are developmentally appropriate. Providing financial education among learners in a manner that other important subject will not be affected or sacrificed is a challenge to curriculum developers. Based on the result of this study, one way to deliver financial education program is through integration. Financial literacy lessons can be integrated in the kinder curriculum and it can complement other learning domains or subject areas. It is also recommended to review

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existing curriculum and identify topics across different subject areas where financial lessons can be integrated seamlessly.

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