

DEVELOPMENT AND IMPLEMENTATION OF KWARTALINO FINANCIAL EDUCATION PROGRAM AND ITS EFFECT ON KINDERGARTEN LEARNERS' FINANCIAL LITERACY

APRIL ANN M. CURUGAN

SULTAN IDRIS EDUCATION UNIVERSITY

2019



DEVELOPMENT AND IMPLEMENTATION OF KWARTALINO FINANCIAL
EDUCATION PROGRAM AND ITS EFFECT ON KINDERGARTEN
LEARNERS' FINANCIAL LITERACY

APRIL ANN M. CURUGAN

THESIS PRESENTED TO QUALIFY FOR A
DOCTOR OF PHILOSOPHY IN EARLY CHILDHOOD EDUCATION



NATIONAL CHILD DEVELOPMENT RESEARCH CENTRE
SULTAN IDRIS EDUCATION UNIVERSITY

2019





Please tick (✓)

Project Paper

Masters by Research

Master by Mixed Mode

PhD

✓

INSTITUTE OF GRADUATE STUDIES

DECLARATION OF ORIGINAL WORK

This declaration is made on theday of.....20.....

i. Student's Declaration:

I, April Ann M. Curugan, P20161000849, NCDRC hereby declare that the work entitled Development and Implementation of Kwartalino Financial Education Program and Its Effect on Kindergarten Learners' Financial Literacy is my original work. I have not copied from any other students' work or from any other sources except where due reference or acknowledgement is made explicitly in the text, nor has any part been written for me by another person.

Signature of the student

ii. Supervisor's Declaration:

I Dr. Abdul Halim bin Masnan hereby certifies that the work entitled Development and Implementation of Kwartalino Financial Education Program and Its Effect on Kindergarten Learners' Financial Literacy was prepared by the above named student, and was submitted to the Institute of Graduate Studies as a * partial/ full fulfillment for the conferment of Doctor of Philosophy in Early Childhood Education and the aforementioned work, to the best of my knowledge, is the said students work.

Date

Signature of the Supervisor



INSTITUT PENGAJIAN SISWAZAH / INSTITUTE OF GRADUATE STUDIES

BORANG PENGESAHAN PENYERAHAN TESIS/DISERTASI/LAPORAN KERTAS PROJEK DECLARATION OF THESIS/DISSERTATION/PROJECT PAPER FORM

Tajuk / Title: Development and Implementation of Kwartalino Financial Education Program and Its Effect on Kindergarten Learners' Financial Literacy

No. Matrik / Matric's No.: P20161000849

Saya / I : April Ann M. Curugan

(Nama pelajar / Student's Name)

mengaku membenarkan Tesis/Disertasi/Laporan Kertas Projek (Kedoktoran/Sarjana)* ini disimpan di Universiti Pendidikan Sultan Idris (Perpustakaan Tuanku Bainun) dengan syarat-syarat kegunaan seperti berikut:-

acknowledged that Universiti Pendidikan Sultan Idris (Tuanku Bainun Library) reserves the right as follows:-

1. Tesis/Disertasi/Laporan Kertas Projek ini adalah hak milik UPSI.
The thesis is the property of Universiti Pendidikan Sultan Idris
2. Perpustakaan Tuanku Bainun dibenarkan membuat salinan untuk tujuan rujukan dan penyelidikan.
Tuanku Bainun Library has the right to make copies for the purpose of reference and research.
3. Perpustakaan dibenarkan membuat salinan Tesis/Disertasi ini sebagai bahan pertukaran antara Institusi Pengajian Tinggi.
The Library has the right to make copies of the thesis for academic exchange.
4. Sila tandakan (✓) bagi pilihan kategori di bawah / Please tick (✓) for category below:-

☐

SULIT/CONFIDENTIAL

Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub dalam Akta Rahsia Rasmi 1972. / Contains confidential information under the Official Secret Act 1972

☐

TERHAD/RESTRICTED

Mengandungi maklumat terhad yang telah ditentukan oleh organisasi/badan di mana penyelidikan ini dijalankan. / Contains restricted information as specified by the organization where research was done.

☒

TIDAK TERHAD / OPEN ACCESS

(Tandatangan Pelajar/ Signature)

(Tandatangan Penyelia / Signature of Supervisor)
& (Nama & Cop Rasmi / Name & Official Stamp)

Tarikh: _____

Catatan: Jika Tesis/Disertasi ini **SULIT @ TERHAD**, sila lampirkan surat daripada pihak berkuasa/organisasi berkenaan dengan menyatakan sekali sebab dan tempoh laporan ini perlu dikelaskan sebagai **SULIT** dan **TERHAD**.

Notes: If the thesis is **CONFIDENTIAL** or **RESTRICTED**, please attach with the letter from the organization with period and reasons for confidentiality or restriction.



ACKNOWLEDGEMENT

To our Almighty God, for all the blessings you have showered upon me, for guiding me and leading me in this journey, with my whole heart, I thank you.

Avery special thanks to Sultan Idris University Education for granting me admission to this program. I am also thankful to the entire faculty and staff of the National Child Development Research Center for attending to our needs and requests as international students. Also, warm appreciation to all the faculty lecturers who shared their expertise and knowledge in doing research.

I am also indebted to Philippine Normal University, my beloved Alma Mater, which gave me the opportunity to study and finish my doctoral degree.

I am in deep gratitude to my supervisors – Dr. Abdul Halim bin Masnan and Prof. Madya Dr. Norlia Binti Mat Norwani, who gave me guidance, continued support, and encouragement in doing my research. I am thankful for the times they have spent in reading my research and providing insights and wisdom to improve my study.

To the school principals – Dr. Shella Navarro, Ms. Rhodora Mandap, and Prof. Ruth Regalado, kinder teachers, staff, parents, and kinder learners who accommodated me and all my requests in conducting my study, thank you so much.

To all my validators and experts – Sir Allan, Ms. Liza, Ms. Marianne, and Mrs. De Leon who shared their knowledge and wisdom for the completion of this study, thank you very much.

To my UPSI co-scholars specially to my roommates at Seri Harmoni Zone F– Amor, Uni, and Lai, thank you for your companionship. I treasure this journey with you.

To my childhood friends – Jenny and Janet thank you for your prayers. Special thanks to Amie who provided great help in my study.

I am forever grateful to Ninang Cleo and Jaimmy for your unending love, inspiration, support, and belief in me.

To my very good friend – Melissa, thank you for all the countless times you helped and supported me in this quest.

I am forever thankful to my family – Papa Henry, Mama Beth, Tita Alice, Jamie, Jezil, and Kuya Eric for your love, care, and understanding. I would not have been able to finish this study without your support.





ABSTRACT

The purpose of this study was to develop and implement a financial education program and determine its effect on kindergartens' financial literacy. Development of the Kwartalino Financial Education Program involved adaptation of the ADDIE model. Purposive sampling was used in the first phase of the program development and consisted of six kindergarten teachers and five experts. Interview with teachers revealed essential components of the program like appropriate learning activities, relevant instructional materials, and active parent involvement. Data from comparative analysis and financial education standards checklist show appropriate financial lessons for kindergarten children. Experts confirmed the program's content validity. In the second phase to determine the effect of the Kwartalino program on kindergarten's financial knowledge, a quasi-experimental with experimental group ($n=38$) and control group ($n=36$) with pre-and post-test design. Simple random sampling was employed to determine two kindergarten classes ($n=74$) from eight morning classes ($N=304$) in a public school. A 40-item financial knowledge test was developed and used for pre-tests and post-tests. Kwartalino was implemented for three months. Result of the independent sample t-test shows that there was a significant difference between the means of the post-tests of the experimental group ($M=30.71$; $SD=2.94$) and the control group ($M=26.17$; $SD=3.39$); $t(72)=6.17$, $p<0.001$. Additionally, result of the paired t-test shows that there was a significant difference between the experimental group's post-test mean score ($M=30.71$; $SD=2.94$) from their pre-test mean score ($M=20.89$; $SD=2.82$); $t(37)=34.22$, $p<0.001$. Twenty parents and the teacher-implementer were also interviewed. Lichtman's 3 C's of data analysis was utilized. The parents and teacher indicated that learners possess financial knowledge, skills, and attitude. Result of the interview supported the findings of the quantitative phase. In conclusion, the main finding of this study showed that the Kwartalino financial education program was effective in enhancing kindergarten's financial literacy. In implication, the Kwartalino Financial Education Program can be used to develop the financial literacy of kindergarten learners.





PEMBANGUNAN DAN PELAKSANAAN PROGRAM PENDIDIKAN KEWANGAN KWARTALINO DAN KESANNYA TERHADAP TAHAP CELIK KEWANGAN MURID-MURID TADIKA

ABSTRAK

Tujuan kajian ini adalah untuk membangunkan dan melaksanakan program pendidikan kewangan dan menentukan kesannya ke atas tahap celik kewangan kanak-kanak tadika. Pembangunan Program Pendidikan Kewangan Kwartalino melibatkan penyesuaian model ADDIE. Kaedah persampelan bertujuan telah digunakan dalam fasa pertama program pendidikan tersebut dan terdiri daripada enam orang guru tadika dan lima orang pakar bidang. Temubual bersama guru-guru menunjukkan komponen penting dalam program seperti aktiviti pembelajaran yang sesuai, bahan pengajaran yang relevan, dan penglibatan ibu bapa yang aktif. Data daripada analisis perbandingan dan senarai semak standard pendidikan kewangan menunjukkan pelajaran kewangan yang sesuai untuk kanak-kanak tadika. Pakar-pakar bidang mengesahkan kesahan kandungan program. Dalam fasa kedua, untuk menentukan kesan Program Kwartalino ke atas pengetahuan kewangan kanak-kanak tadika, satu kajian kuasi-eksperimen dengan kumpulan rawatan ($n=38$) dan kumpulan kawalan ($n=36$) telah dijalankan menggunakan reka bentuk ujian pra-pasca. Kaedah persampelan rawak mudah telah digunakan untuk menentukan dua kelas kanak-kanak tadika ($n=74$) daripada lapan kelas pagi ($N=304$) di sebuah sekolah awam. Satu ujian pengetahuan kewangan dengan 40 butiran telah dibina dan digunakan dalam pra-ujian dan pasca ujian. Program Kwartalino telah dijalankan selama tiga bulan. Keputusan ujian t-sampel tidak bersandar menunjukkan terdapat perbezaan yang signifikan antara min ujian pasca ujian kumpulan rawatan ($M = 30.71$; $SD = 2.94$) dan kumpulan kawalan ($M = 26.17$; $SD = 3.39$); $t(72) = 6.17$, $p < 0.001$. Selain itu, keputusan ujian t-sampel bersandar bagi kumpulan rawatan menunjukkan terdapat perbezaan yang signifikan antara skor min pasca ujian ($M = 30.71$; $SD = 2.94$) dengan skor min pra-ujian mereka ($M = 20.89$; $SD = 2.82$); $t(37) = 34.22$, $p < 0.001$. Dua puluh orang ibu bapa dan pelaksana guru juga telah ditemubual. Analisis data 3 C dari Lichtman telah digunakan. Ibu bapa dan guru menunjukkan bahawa pelajar mempunyai pengetahuan, kemahiran, dan sikap kewangan. Hasil dapatan temubual menyokong penemuan fasa kuantitatif. Kesimpulannya, dapatan kajian utama menunjukkan Program Pendidikan Kewangan Kwartalino adalah berkesan dalam mempertingkatkan tahap celik kewangan kanak-kanak tadika. Sebagai implikasi, Program Pendidikan Kewangan Kwartalino boleh digunakan untuk membina tahap celik kewangan pelajar tadika.



CONTENTS

	Pages
DECLARATION OF ORIGINALITY	ii
DECLARATION OF DISSERTATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
ABSTRAK	vi
CONTENTS	vii
LIST OF TABLES	xiv
LIST OF FIGURES	xviii
LIST OF ABBREVIATIONS	xix
LIST OF APPENDICES	xx

CHAPTER 1 INTRODUCTION

1.1	Introduction	1
1.2	Background	3
1.3	Problem Statement	12
1.4	Objectives of the Study	18
1.5	Research Questions	18
1.6	Research Hypotheses	19
1.7	Conceptual Framework	20
1.8	Importance of Research	25
1.9	Scope and Limitations	29
1.10	Operational Definition	30
1.11	Summary	35

CHAPTER 2 LITERATURE REVIEW

2.1	Introduction	37
2.2	Theoretical Framework of Research	37
2.2.1	Human Capital Theory	38
2.2.2	Social Learning Theory	42
2.2.3	Constructivist Learning Theory	47
2.3	Financial Literacy for Children	52
2.4	Research Studies on Financial Literacy of Children	55
2.4.1	Synthesis of Research Studies on Financial Literacy of Children	63
2.5	Financial Education for Children	67
2.5.1	The Importance of Financial Education	73
2.5.2	The Role of School	76
2.5.3	The Role of Parents	77
2.5.4	Financial Education Contents	83
2.5.5	Financial Education Learning Activities	89
2.5.6	Financial Education Instructional Materials	95
2.5.7	Effectiveness of Financial Education Programs	96
2.5.8	Synthesis on Financial Education for Children	101
2.6	Effects of Financial Education Program on Learners' Financial Literacy (Knowledge, Skills, and Attitude)	102
2.6.1	Synthesis of Research Studies on the Effect of Financial Education Programs on Learners' Financial Literacy	128
2.7	The ADDIE Model	134
2.8	Summary	136

CHAPTER 3 METHODOLOGY

3.1	Introduction	137
3.2	Research Design	138
3.2.1	Mixed Method	139
3.3	Sampling and Participants	142
3.3.1	Experts' Background	142
3.3.2	Kinder Teachers' Background	143
3.3.3	School Setting	145
3.3.4	Demographic Profile of Kindergarten Participants	147
3.3.5	Parents' Profile	148
3.3.6	Kinder Teacher's Profile	149
3.4	Ethical Considerations	150
3.5	Role of the Researcher	153
3.6	Data Gathering Instruments	155
3.6.1	Checklist of Financial Education Standards for Kindergarten	156
3.6.2	Interview Questions for Kinder Teachers	156
3.6.3	Validation Instrument for the <i>Kwartalino</i> Lessons and Workbook	157
3.6.4	Descriptive Validation for the Evaluation Instrument of the <i>Kwartalino</i> Lessons and Workbook	158
3.6.5	Development of the Financial Knowledge Test	163
3.6.6	Pilot Test	164
3.6.7	Interview Questions for Parents and Kinder Teacher	166
3.6.8	Triangulation Aspect of the Research	169

3.7	Data Gathering Procedures	170
3.7.1	Phase 1 – Development of a Financial Education Program	172
3.7.2	Phase 2 – Quantitative Aspect of the Research - Implementation of the Financial Education Program using Quasi-experimental Design with Experimental and Control Group with Pre-and Post- Tests	197
3.7.3	Phase 3 – Qualitative Aspect of the Research - Interview with Parents and Kindergarten Teacher	214
3.8	Data Analysis Procedure for the Quantitative Data	215
3.8.1	Mean Score	216
3.8.2	Aiken’s Content Validity Coefficient	217
3.8.3	Randolf’s Free-Marginal Kappa	217
3.8.4	Cronbach Alpha	218
3.8.5	Frequency	219
3.8.6	Relative Percent/Percentage	219
3.8.7	Standard Deviation	219
3.8.8	Shapiro-Wilk Test	219
3.8.9	Independent t-test and Paired t-test	220
3.8.10	Cohen’s d	220
3.9	Data Analysis Procedure for the Qualitative Data	221
3.9.1	Lichtman’s Three C’s of Data Analysis	221
3.10	Summary	224

CHAPTER 4 FINDINGS FROM PHASE 1 - DEVELOPMENT OF A FINANCIAL EDUCATION PROGRAM

4.1	Introduction	225
4.2	Research Question 1: What essential components could be considered to design and develop a financial education program	

	that can be integrated in the Philippine Kindergarten curriculum?	226
4.2.1.	Kwartalino Financial Education Learning Contents	227
4.2.2	Kwartalino Financial Education Learning Activities	237
4.2.3	Kwartalino Financial Education Learning Materials	244
4.3	Summary	258
CHAPTER 5	FINDINGS FROM PHASE 2 - QUANTITATIVE ASPECT OF THE RESEARCH	
5.1	Introduction	259
5.2	Research Question 2: Is there a significant difference on the financial knowledge between the experimental and control group before the implementation of the financial education program?	260
5.3	Research Question 3: Is there a significant difference on the financial knowledge between the experimental and control group after the implementation of the financial education program?	262
5.4	Research Question 4: Is there a significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program?	263
5.5	Research Question 5: Is there a significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program specifically in terms of the seven lessons taught?	264
5.6	Summary	266
CHAPTER 6	FINDINGS FROM PHASE 3 - QUALITATIVE ASPECT OF THE RESEARCH	
6.1	Introduction	267
6.2	Research Question 6: How did the financial education program affect the financial literacy of the kindergarten learners based on parents' perspective?	268
6.2.1	What lessons in the Kwartalino do you think your child understand the most?	268

6.2.2	What changes did you observe in your child regarding his/her attitude towards money?	273
6.2.3	What changes did you observe in your child regarding the way he/she handles or manages his/her pocket money? What other money-management skills did you observe your child have started to develop after the Kwartalino program?	280
6.3	Research Question 7: How did the financial education program affect the financial literacy of the kindergarten learners based on teacher's perspective?	285
6.3.1	What financial lessons do you think the learners understand the most? Why?	285
6.3.2	What changes did you observe on learners' attitude regarding money after the program implementation?	286
6.3.3	What changes did you observe on learners' behavior after the implementation of the program? What money-management skills did you observe on learners after the program implementation?	286
6.4	Summary	287

CHAPTER 7 DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

7.1	Introduction	288
7.2	Summary of the Study	289
7.3	Discussion	290
7.3.1	Design and develop a financial education program that can be integrated in the Philippine Kindergarten Curriculum	290
7.3.2	Implement the financial education program through quasi-experimental design.	297
7.3.3	Determine parents' and teacher's perspectives on how the financial education program affected kindergarten learners' financial literacy.	298
7.3.4	Discussion on the Findings of Methodological Triangulation	301
7.4	Conclusions	305

7.5	Implications	308
7.6	Recommendations	312
7.7	Summary	315
REFERENCES		316
APPENDICES		333

LIST OF TABLES

Table No.		Page
2.1	Summary of financial education programs reviewed and their duration	129
2.2	Summary of studies and aspect of financial literacy	133
3.1	Profile of the participants	147
3.2	Profile of the parents that were interviewed	149
3.3	Interview protocol for kindergarten teachers	157
3.4	Appropriateness of the Validation Instrument for Kwartalino Lessons	159
3.5	Appropriateness of the Validation Instrument for Kwartalino Learners' Workbook	160
3.6	Comments and suggestions on the Evaluation Instrument	162
3.7	Cronbach Alpha of the Kwartalino Financial Knowledge Test	166
3.8	Interview questions for the parents of kindergarten learners	166
3.9	Interview questions for the Kindergarten Teacher Implementor	167
3.10	Data gathering instruments and their purpose	168
3.11	Summary of topics, themes, and categories of the Three International Financial Education Standards	175
3.12	Summary of Kinder Teachers' answer on the interview	178
3.13	Validators' level of acceptance: Lesson Contents	183
3.14	Validators' level of acceptance: Lesson Objectives	183
3.15	Validators' level of acceptance: Instructional Materials Used	184
3.16	Validators' level of acceptance: Financial Story Used	185
3.17	Validators' level of acceptance: Lesson Procedures	185

3.18	Validators' level of acceptance: Lesson Presentation	186
3.19	Summary of validators' level of acceptance on Kwartalino Lessons	187
3.20	Content Validity Coefficient (v) of Kwartalino Lessons	188
3.21	Measure of Inter-rater Reliability of Experts' Validation on Kwartalino Lessons	189
3.22	Validators' level of acceptance: Financial Concepts	190
3.23	Validators' level of acceptance: Learning Activities	190
3.24	Validators' level of acceptance: Lay-out	191
3.25	Validators' level of acceptance: Illustrations	192
3.26	Validators' level of acceptance: Presentation and Organization	193
3.27	Validators' level of acceptance: Language	193
3.28	Summary of Validators' Level of Acceptance on Kwartalino Learner's Workbook	194
3.29	Content Validity Coefficient (v) of Learner's Workbook	195
3.30	Measure of Inter-rater Reliability of Experts' Validation on Learner's Workbook	196
3.31	Comparison of treatment between the Experimental and Control Group	199
3.32	Schedule of implementation of each financial lesson	202
3.33	Kinder blocks of time and the Kwartalino Integration and Lesson Implementation	202
3.34	Summary of answered Study this Activity in Learner's Workbook	205
3.35	Summary of answered Do with Dad and Mom Activity in Learner's Workbook	206
3.36	Summary of answered Think and Do Activity in Learner's Workbook	208
3.37	Legend to evaluate the Kwartalino Lesson Components	216

3.38	Verbal interpretation of Kappa Value	218
3.39	Interpretation of Cronbach Alpha	218
4.1	Financial Lessons, Weekly Content Focus & Daily Message, and Kinder Learning Domain	228
4.2	Financial Lessons, Lesson Objectives, and the Three International Financial Education Standards	232
4.3	Summary of Kinder Teachers' answer on Financial Learning Activities	238
4.4	Financial Lesson Activities and Integrated Competencies in Kindergarten Learning Domains	238
4.5	Title and plot of each Financial Education Story	255
4.6	Title of financial story and the Language, Literacy, and Communication (LL) Competency	256
5.1	Tests of Normality	260
5.2	Result of the independent t-test for the Experimental and Control Group before implementation	261
5.3	Result of the independent t-test for the Experimental and Control Group after implementation	262
5.4	Paired sample t-test results of the Experimental Group before and after the program	263
5.5	Result of the Paired Sample t-test per lesson	265
6.1	Codes on the Category 1: Concept on Saving and Goal Setting	269
6.2	Codes on Category 2: Concept on Spending	270
6.3	Codes on Category 3: Concept on Money Management	271
6.4	Codes on Category 4: Concept on Sharing and Giving	271
6.5	Codes on Category 5: Concept on the Value of Money	272
6.6	Codes on Category 1: Increased Enthusiasm to Save	274
6.7	Codes on Category 2: Lessened Interest to Spend	275
6.8	Codes on Category 3: Decreased Inclination in Buying	

	Unnecessary Things	276
6.9	Codes on Category 4: Honesty towards Money	276
6.10	Codes on Category 5: Appreciating Parents' Work	277
6.11	Codes on Category 6: Appreciating Money	278
6.12	Codes on Category 7: Desire to Share and Give to Others	279
6.13	Codes on Category 1: Intentional Saving	281
6.14	Codes on Category 2: Conscientious Spending	282
6.15	Codes on Category 3: Disciplined Money Management	283
6.16	Codes on Category 4: Thoughtful Sharing	284
6.17	Codes on Category 5: Mindful Use of Money	284
7.1	Categories under Theme 1: Emerging Financial Knowledge	299
7.2	Categories under Theme 2: Emerging Financial Attitude	300
7.3	Categories under Theme 3: Emerging Financial Skills	300

LIST OF FIGURES

Figure No.	Page
1.1. Conceptual Framework	20
3.1. Ethical Procedure of the Study	152
3.2 The data gathering procedure of the study	171
3.4. Three C's of Data Analysis: Codes, Categories, Concepts	221
3.5. Steps for Data Analysis	224
4.1. Kwartalino Financial Education Program Overview	245
4.2. Matrix of Kwartalino Lessons, Kinder Learning Domains and Competencies for Three International Financial Education Standards	246
4.3. Parts of the Instructional Plan	248
4.4. Continuation of the Parts of the Instructional Plan	248
4.5. Parts of the Lesson Procedure	249
4.6. Continuation of the Parts of the Lesson Procedure	250
4.7 Learner's Workbook	252
4.8. Seven Financial Stories	254

LIST OF ABBREVIATIONS

ADB	Asian Development Bank
APEC	Asia-Pacific Economic Cooperation
ASIC	Australian Security and Investment Commission
BSP	<i>Bangko Sentral ng Pilipinas</i>
CSFE	Child Social and Financial Education
CUNA	Credit Union National Association
CYFI	Child and Youth Finance International
DepEd	Department of Education
DfEE	Department for Education and Employment
FLEC	Financial Literacy and Education Commission
JA	Junior Achievement
NFEC	National Financial Educator's Council
NGO	Non-Government Organization
OECD – PISA	Organization for Economic Cooperation and Development – Programme for International Student Assessment
OECD	Organization for Economic Cooperation and Development
OECD-INFE	Organization for Economic Cooperation and Development – International Network of Finance Education
RA	Republic Act
UNICEF	United Nations' Children's Fund



LIST OF APPENDICES

A1	Letter of Consent to the Experts
A2	Letter to Kinder Teacher for Interview
A3	Letter to the Principal for Pilot Test
A4	Letter of Consent to Parents of Pilot Test
A5	Letter to the Principal for Program Implementation
A6	Letter of Consent to Kindergarten Teacher (Experimental Group)
A7	Letter of Consent to Kindergarten Teacher (Control Group)
A8	Letter of Consent for the Parents of the Experimental Group
A9	Letter of Consent to Parents for Interview
B	Checklist of 3 International Standards
C1	Rating Sheet for Validators
C2	Summary of Scores of Validators on Financial Lessons
C3	Summary of Scores of Validators on Workbook
C4	Result of Aiken's Content Validity Coefficient on <i>Kwartalino</i> Lessons
C5	Result of Aiken's Content Validity Coefficient on <i>Kwartalino</i> Learners' Workbook
D	Table of Specification
E	<i>Kwartalino</i> Test with English Translation
F	Result of Cronbach alpha
G	Summary of Experts' Answers of the Checklist





H	Result of Shapiro-Wilk Test
I	Interview Transcript of Kinder Parents
J	Interview Transcript of Kinder Teacher Implementor
K1	<i>Kwartalino</i> Package - Program Overview
K2	<i>Kwartalino</i> Package - Matrix
K3	<i>Kwartalino</i> Package - Teachers' Guide
K4	<i>Kwartalino</i> Package – Learners' Workbook
K5	<i>Kwartalino</i> Package – Financial Education Stories





CHAPTER 1

INTRODUCTION



1.1 Introduction

The advent of the 21st century demands children to be equipped with necessary knowledge, skills, and attitude in order to live, thrive, and succeed in the modern society. Educators, specialists, and advocates believe that one of the many essential life skills that children need to acquire and develop is financial literacy (Ali, Anderson, McRae, & Ramsay, 2016). Financial literacy is a person's knowledge, understanding, and skills to manage their personal finances (Child and Youth Finance International [CYFI], 2016).





Significant reasons are offered which emphasize the need to enhance the financial literacy of the youth and young children. First, international studies show that there is a low level of financial literacy among young people (Organization for Economic Cooperation and Development [OECD], 2014; Mandell, 2008). Financial illiteracy affects an individual, his or her family, the society in which one lives, and the general economy of a nation. Second, young children learn about financial matters early in life and whatever they learn in childhood is believed to have a great influence in their beliefs, values, and attitude towards money. Thus, they must be provided with opportunities to explore financial lessons in a manner which is developmentally appropriate for them. Third, with the progress of technology, the internet, and different media platforms, the financial system is continuously evolving and changing, making it increasingly complex to access and navigate (Fabris & Luburić, 2016; Johnston, 2005). Children must be equipped with skills they will need to successfully take charge of their financial future (OECD, n.d.a). Lastly, children are considered as economic agents who participate as active consumers of different products and services (Suiter & Meszaros, 2005). They need proper guidance regarding personal finance and correct money-management.

For these reasons, many are promoting the inclusion of financial education programs in schools (Asia-Pacific Economic Cooperation [APEC], 2014). The OECD (2005) recommends that financial education should start at school and that it should start as early as possible. In the international arena, many countries have already developed national strategies and frameworks regarding the inclusion of financial education in schools. Others have already established financial education standards and have already included financial literacy education as part of their curriculum. However,





in Asia, financial literacy is still a relatively new area of research and policy discussion and that financial education programs are still lagging in the region (Yoshino, Morgan, & Wignaraja, 2015).

In the Philippine context, incorporating financial literacy and financial education is still fairly new. Though there are few initiatives that push for the advancement of financial literacy and financial education, more effort is needed for its successful inclusion in the national curriculum. In the Republic Act 10922 (2015) known as the “Economic and Financial Literacy Act”, the Department of Education is encouraged to take necessary steps in order to make financial literacy an integral part of formal learning.



As such, the researcher embarked on a study to develop and implement a financial education program for kindergarten learners and determine its effect on their financial literacy in terms of their financial knowledge, skills, and attitude. Furthermore, the present study was conducted to join in the international discussion regarding financial literacy and financial education among young learners.

1.2 Background

Financial literacy enables an individual to efficiently and effectively navigate through the complexities of present-day economic and financial systems. 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). It also enables an individual to avoid unnecessary debts, minimize financial losses, prevent monetary mismanagement, and other financial frauds, traps, scams, and pitfalls. Financial literacy is both a requisite and a vital aspect to becoming a good citizen (Lusardi, 2011; Kezar & Yang, 2010).

While financial literacy among individuals is perceived to be important and necessary, several studies reveal that financial illiteracy is prevalent whether in first-world nation or in developing countries (Lusardi, 2012; Miller, Godfrey, Levesque, & Stark, 2009; Junior Achievement, 2009). One of the most comprehensive study was conducted by Standard and Poor's Global Financial Literacy Survey in 2014. The study reveals that only one in three adults is financially literate. Moreover, the survey also reveals that women, the poor, and lower educated people are more likely to suffer from the lack of financial knowledge (Klapper, Lusardi, & van Oudhusden, 2015). Further, result of this study reveals that Filipinos belongs to the thirty (30) countries in the world which are least financially literate (Montecillo, 2015). In the Asia-Pacific region, MasterCard's Financial Literacy Index Survey conducted in 2014 also reveals a minor pull back on Asia-Pacific' progress toward financial well-being. This downtrend is due to the drop of scores across 12 of the 16 countries which participated in the study.

Similar result is revealed with studies which sought to determine financial literacy among the youth. Results based on national surveys show that young adults have amongst the lowest levels of financial literacy (OECD, n.d.). The latest result of the OECD – PISA in 2015 on their assessment of financial literacy among 15-year-old





students in several participating countries reveal that students have difficulty understanding financial matters. According to OECD (2016) report:

“On average across OECD countries and economies, 22% of students perform at or below Level 1 in financial literacy... On average across OECD countries and economies, as many as 22% of students perform below Level 2 in financial literacy, which can be considered the baseline level of proficiency that is required to participate in society.”

Opoku (2015) conducted a study among senior high school students in Ghana and found that they are not knowledgeable regarding personal finance and that they also lack financial knowledge. In the study of Scheresberg (2013) among young adults, he found that financial illiteracy is widespread in this age population. In addition, a study conducted by Lusardi, Mitchell, and Curto (2010) reveal that young adults' financial literacy is low and that fewer than one-third of young adults possess basic knowledge of interest rates, inflation, and risk diversification. Also, result of the Jump\$tart Coalition National Survey on Financial Literacy in 2008 shows that high school students' performance was at its lowest ever since it began in 1997 (Mandell, 2008).

Due to these dismal and alarming results, there is a clamor to address this pressing issue of low financial literacy worldwide. Many believe that the introduction and inclusion of financial education in the educational system is the key solution to address the problem. Providing financial education among elementary and secondary learners can prevent them from making poor financial decisions (Greenspan as cited by Grody, Grody, Kromann, & Sutliff, 2008). In addition, Paulson (2008) believes that financial literacy concepts can be taught even among young people before they become adults. Others propose that financial education should become one of the components





of schools and that financial education should start in kindergarten through college level (Kezar & Yang, 2010; McCormick, 2009; Jorgensen, 2007; and Breitbart, 2003).

Several countries have already recognized the importance of financial literacy and financial education in developing financially literate and economically empowered citizens. Many among these countries have already established national standards and frameworks that will guide the development and progress of financial education in their country while others are still crafting their national policies that will serve as a foundation of financial education. One of these countries which is on the initial stages in the development and inclusion of financial education programs in the educational system is the Philippines.



There are a number of initiatives that were done and are continuously being



implemented to promote financial literacy and financial education in the country. The *Bangko Sentral ng Pilipinas* (Central Bank of the Philippines) in partnership with the Department of Education (DepEd), public and private schools, non-government organizations (NGOs), and other private companies and institutions, started a number of programs in line with the goal of reaching and educating the Filipino youth and children. Below are some of the BSP initiatives with regards to the promotion of financial literacy and financial education from the BSP Advocacies Briefs (n.d.):

The *Tulong Barya Para sa Eskwela* (TBPSE) program which was launched by BSP and DepEd in 2006 intended to teach children the value of coins in the economy, introduce the functions of banks and banking system, and instill the value of saving. In this program, elementary and high-school children are encouraged to collect, save, and





deposit collected coins at a bank at their nearest location. At the same time, the program also aimed to stimulate the recirculation of small-denomination coins in the commercial system.

The Kiddie Account Program which was launched in 2011 by the *Bangko Sentral ng Pilipinas* (BSP) is implemented to encourage Filipino schoolchildren to save regularly. In the program, a schoolchild under the age of 13 can open an account with an initial deposit of Php 100.00 (2USD) to any bank participating in the program (Billimoria, Penner, & Knoote, 2013). This program is part of the Banking on Your Future (BOYF) program of the BSP and other banking sectors of the country. Additionally, the program allows banks to implement programs to instruct and educate elementary school students near their location regarding banking, correct money-management, and other finance related lessons.

Another program which aims to recognize either a teacher, a student, a class, or a school in implementing effective savings and entrepreneurial program for at least one year was also implemented in 2014 by the BSP. The program is called *Bida sa Pag-iimpok at Pangkabuhayan* (Hero of Saving and Entrepreneurship). Winning body will receive a Php 25, 000.00 that is intended to purchase materials for entrepreneurship as well as a Certificate of Recognition.

An initiative made by the BSP in partnership with the DepEd is the integration of financial education program in elementary level in 2007. The aim of the program is to teach primary learners essential skills that they can use in their future. The initiative produced Financial Education Teaching Guides which are intended to be taught from





Grade 1 to Grade 6 and are designed to be integrated in three entry subject areas – Social Studies (*Sibika at Kultura and Heograpiya, Kasaysayan at Sibika*), Home Economics and Entrepreneurship (*Edukasyong Pangtahanan at Pangkabuhayan*) and Values Education (*Edukasyon sa Pagpapakatao*). These instructional materials were delivered to public elementary schools nationwide and teachers were encouraged to use them in teaching their lessons. However, lessons developed in these teaching guides were based on the previous curriculum of the DepEd which was replaced with the implementation of the K-12 Curriculum which is the present curriculum used by the entire country. Nevertheless, the teaching guides are still available for download at the BSP website and can be used as reference materials for teachers.

The *GURO ng PAG-ASA - Gantimpala para sa Ulirang pagtuturo ng pag-iimpok at Araling panSalapi* (Award for Exemplary Teaching of Saving and Financial

Lessons) is an award given to the best finance education teachers in the elementary level. This reward program aims to encourage teachers to integrate financial lessons by giving recognition to teachers who has shown exemplary performance in integrating financial lessons in their subject areas. The recognition program was launched in 2012 and was held annually since then.

Another is the BSP's Financial Education Expo which aims to instill awareness about different financial education programs, increase awareness on the importance of being financially empowered, and inform participants of available financial tools that can help boost their financial well-being. It a two-to-three-day affair offered to students, teachers/professors and other members of the school (BSP Corporate Office, n.d.).





Other initiatives come from private sectors, business companies, and non-profit groups. The Pru-Life UK's Cha-ching Personal Financial Literacy for the Youth Program was implemented in the elementary grade level – Grade 2 and Grade 3 during the school year 2012-2013 with two schools included for the pilot program (Pru-Life UK, 2015). The program since then has grown and is now adopting more than thirty schools both public and private nationwide.

Another initiative from AIG in partnership with the Junior Achievement also began conducting financial literacy programs in selected Grade 1 classrooms in 2015. The financial education program is known as “JA Ourselves” which aims to provide young learners financial lessons such as earning, saving, and decision-making (AIG, 2015). Instructors on this program are volunteers from different private business companies.

The Child and Youth Financial International (CYFI) – Global Money Week is an annual event participated by several countries nationwide. It is organized by Child and Youth Finance International, a Netherlands-based non-government organization. In the Philippines, the BSP supports the celebration of the Global Money Week and coordinates with students of participating schools to communicate with students from other countries via video conference to share creative and innovative ideas on how to save, earn, and how money works.

The NATCCO Philippines: Savings account for each child is a Child Social and Financial Education (CSFE) program by the UNICEF which is implemented by the





National Confederation of Cooperatives (NATCCO) in the Philippines involving the Cooperative Development Authority, the Department of Education, and other local cooperatives. In this program, social and financial lessons are integrated in the Values Education subject. To reinforce what children are learning in the classroom, cooperatives encourage children to save by providing a no-cost account, voluntary-scheme in account opening and deposits made by children are managed by an Executive Committee involving children with the guidance of their teacher. Savings are then deposited to the co-op which earns certain interest (United Nations International Children's Emergency Fund [UNICEF], 2012).

In recent years, there is a strengthened resolve to raise awareness among Filipino people on the importance of financial literacy and financial education in the growth and progress of the nation's economy. Two Republic Acts serve as the legal bases and foundation of financial literacy and financial education in the country. The first one - 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 – Republic Act 10922 of 2015 known as the "Economic and Financial Literacy Act" which mandates the Department of Education (DepEd) to ensure that financial education becomes an integral part of formal learning." Both of these Republic Acts recognize the need to raise the level of financial literacy among young Filipinos and support efforts in developing financial education programs that could help increase the level of financial awareness, knowledge, skills, and competencies of the youth.





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 commissioned 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, 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. The call to intensify financial awareness, financial literacy, and financial education in the country has inspired the researcher to embark on this study to develop a financial education program for kindergarten learners.





1.3 Problem Statement

Filipinos are in dire need to be equipped with financial literacy for a number of significant reasons. First, international studies reveal that Filipinos have a low level of financial literacy (Messy & Monticone, 2016; Yoshino et al., 2015). Only 25% of Filipinos are financially literate based on the Global Financial Survey of 2014. Moreover, based on the said study, the Philippines belong to the thirty (30) least financially literate countries (Montecillo, 2015). In addition, the Philippines' score and ranking on the MasterCard Financial Literacy Index 2014 has declined compared to its previous performance. The Philippines' score of 62 in overall financial literacy index is lower than the Asia-Pacific's regional mark of 64. According to Tan as cited by Delavin (2016) the sector of the young needs special attention to boost the overall financial literacy of the region.



Second, there are a number of money-management habits and money-related attitudes that are keeping Filipinos poor and broke. These are: 1) not having a savings account, particularly for life savings; 2) not allocating money based on priority; 3) spending for the sake of getting-along with others (*pakikisama*) and free treats (*libre*); 4) feasting with friends; 5) spending more money for their wants, not their needs; 6) one-day millionaires attitude during payday and reckless spending; 7) spending on unnecessary things; 8) buying what the neighbor has because of envy; 9) failure to monitor how much money have been spent; 10) parents considering their children as retirement plan; 11) relying too much financial support from parents; 12) investing in things that depreciate in value; 13) being obsessed with get-rich-quick schemes and solutions; 14) procrastination or *Mañana* habit; 15) being “shy” when it comes to





money talk and not being open to discuss money matters with their partner or family; 16) having poor financial literacy; 17) having access to easy ways of borrowing cash which results to bad debt; 18) not taking advantage of using good debt to prosper in life; 19) having “come what may” mentality; and 20) being victims of lifestyle promotion (Villos, 2017; Moneygirl, 2016; Silang, 2016; NegoSentro, 2015). The acquisition of financial literacy can help Filipinos correct financial misconceptions as well as unlearn and break away from these unhealthy and erroneous financial attitude, behavior, beliefs, and practices. Further, Filipino children need financial literacy to counter these unproductive and unhelpful financial habits.

Third, Filipinos are unable to actively participate in economic activities that could benefit them because they are limited by their own lack of financial knowledge (Silang, 2016). The Philippines is one of the fastest-growing economies in the region today (eCompareMo, 2015). According to the Philippine Economic Update (2016), the country is considered as an emerging economy among Asian countries. Also, the country is enjoying a sweet spot, where young populations which join the workforce are large and retired people are relatively few (Yoshino et al., 2015).

To be able to benefit from these, Filipinos need financial knowledge to help them acknowledge and seize economic opportunities that are present in the country. However, Finance Secretary Carlos G. Dominguez III states that eighty-six percent (86%) of the Filipinos remain unbanked (Leyco, 2017). PinoyMoneyTalk (2017) presents that less than half (1/2) of 1% of Filipinos invest in the stock market, which is considered very small in comparison with other Asian countries. According to Edmund Lee, President and CEO of Caylum Trading Institute, forty-one percent (41%) of





millennials in the Philippines do not know how to save and they spend more for coffee than on savings (Cu, 2017). In addition, the profile of Filipino millennials show that they use debt (i.e. credit cards) for consumption, like travelling, shopping, eating out, etc., and not for production purposes (Rapisura, 2016). Without adequate financial literacy, Filipinos, specifically, the young ones will not be able to take control and be in-charge of their financial well-being, especially which the financial system is getting more intricate. According to Tan, “The increasingly complex and interconnected financial markets along with mounting uncertainties surrounding the global economy have made it even more paramount for greater financial knowledge among consumers, and this is especially vital when it comes to making sound investment decisions,” (Delavin, 2016).



education among young Filipino learners: 1) the low level of financial literacy of Filipinos; 2) the need to address and correct unhealthy and unhelpful money-related attitudes, behaviors, beliefs, and practices; and 3) the inability of Filipinos to participate actively in economic activities. Additionally, eCompareMo (2015) also enumerates the importance of financial literacy for Filipinos – 1) to be able to provide for themselves and their family; 2) to be able to invest in their future as well as that of their children; and 3) to be able to contribute to the country’s economy.

Financial, economic, business, and entrepreneurial literacy is one of the 21st century interdisciplinary themes included in the Framework for 21st Century Learning (BattelleforKids, n.d.). In order to develop financial literacy among the youth and young children, financial education is necessary. Financial education is considered to





be one of the most important areas of development in the education sector over the past decades (Ci Research, 2012). The APEC (2014) enumerates the reasons for introducing financial education into the school curricula in the basic education: 1) financial knowledge should precede financial decisions; 2) an early start helps young people form positive attitudes around money; 3) financial literacy translates into a better life; 4) parents may not be equipped to teach their children about money; 5) financial literacy is a life-long process; 8) financial education in school levels the playing field; 9) it is cost effective to educate the young; and 10) financially literate youth grow into responsible citizens.

In the Philippine context, although there are two laws – Republic Act 10679 (2015) also known as the Youth Entrepreneurship Act and Republic Act 10922 (2015) also known as the Economic and Financial Literacy Act, that were recently passed that serve as the basis for improving the financial literacy and financial education of different sectors including the youth and young learners, much effort is still needed. There are a number of issues, concerns, and challenges regarding the inclusion and implementation of financial education in the educational system.

First, the national government has yet to develop a national strategy for financial education that will serve as a guide for all the efforts towards increasing the financial literacy and improving financial education as the country does not have a national strategy for financial education and literacy (Yoshino et al., 2015). Financial literacy is almost obscure in the country, there is a lack of groups spearheading the campaign for financial literacy and schools do not teach about it (Louren, 2017; eCompareMo, 2015).





In addition, the DepEd is yet to develop standards and competencies for financial education for elementary and high school level (Republic Act 10679, 2015).

Recently, the DepEd has developed partnerships in order to advance its financial education initiatives. The DepEd partnered with *Bangko Sentral ng Pilipinas* to develop learner friendly financial education initiatives in line with the National Strategy for Financial Inclusion under the pillar of Financial Education and Consumer Protection; with the *Bangko De Oro* Foundation, Inc. to produce video materials on financial literacy for teachers and learners; and with BSP, NATTCO, and Philippine Life Insurance Association in conducting workshops to intensify integration of Financial Literacy Education in the K to 12 Curriculum (Philippine Information Agency, 2017).



another concern is that financial education programs targeted specifically for kindergarten learners is not yet available. Financial education programs for kindergarten learners need careful attention as regards to its content, methods of delivery, learning activities, and instructional resources to be used since children have different characteristics at this age level. Moreover, the challenge of implementing a financial education program which will not compete for time with other learning areas but instead complement them is also a challenge that must be resolved.

Finally, the dearth of available literature and studies regarding the financial literacy and financial education of young children, particularly in the Philippine context, poses a challenge in developing a financial education program that would cater to their needs, interests, and abilities. At present, there are no published research





journals or studies related to the financial literacy and financial education of kindergarten learners in the Philippines. In the international arena, a number of literature and studies have been published in relation to the acquisition of economic concepts, financial literacy, and financial education among kindergarten learners. Some of these includes: 1) developmental perspective on children's economic agency by Friedline (2015); 2) children's monetary decision making by Koh and Lee (2010); 3) financial literacy programs for preschool by Holden, Kalish, Scheinholtz, Dietrich, and Novak, (2009); 4) children's economic socialization by Leiser, Sevon, and Levy, (1990); 5) child's construction of economics by Berti and Bombi (1988); and 6) a case study on the acquisition of economic concept among kindergarten learners by Kourilsky (1977).



program that takes into consideration different essential components in order to efficiently and effectively implement it inside the kindergarten classroom as well as to determine its effect on kindergarten learners. Further, this study aims to join the efforts of the country and of the Department of Education, to develop a financial education program suited specifically for Filipino learners taking into consideration their unique characteristics, culture, and contexts. Lastly, the study aims to join the international discussion on the importance of developing the financial literacy of young learners through financial education.





1.4 Objectives of the Study

1. Design and develop a financial education program that can be integrated in the Philippine Kindergarten Curriculum.
2. Implement the financial education program through quasi-experimental design.
3. Determine parents' and teacher's perspective on how the financial education program affected kindergarten learners' financial literacy.

1.5 Research Questions

1. What essential components could be considered to design and develop a financial education program that can be integrated in the Philippine Kindergarten curriculum?
2. Is there a significant difference on the financial knowledge between the experimental and control group before the implementation of the financial education program?
3. Is there a significant difference on the financial knowledge between the experimental and control group after the implementation of the financial education program?
4. Is there a significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program?



5. Is there a significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program specifically in terms of the seven lessons taught?
6. How did the financial education program affect the financial literacy of the kindergarten learners based on parents' perspective?
7. How did the financial education program affect the financial literacy of the kindergarten learners based on kinder teacher's perspective?

1.6 Research Hypotheses

There are three research hypotheses for this study. The first hypothesis is related to research question number 2.b and the second hypothesis is related to research question number 3.a.

1. **H_0 :** There is no significant difference on the financial knowledge between experimental and control group before the implementation of the financial education program.
2. **H_0 :** There is no significant difference on the financial knowledge between experimental and control group after the implementation of the financial education program.



3. H_0 : There is no significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program.
4. H_0 : There is no significant difference on the financial knowledge of the experimental group before and after the implementation of the financial education program specifically in terms of the seven lessons taught.

1.7 Conceptual Framework

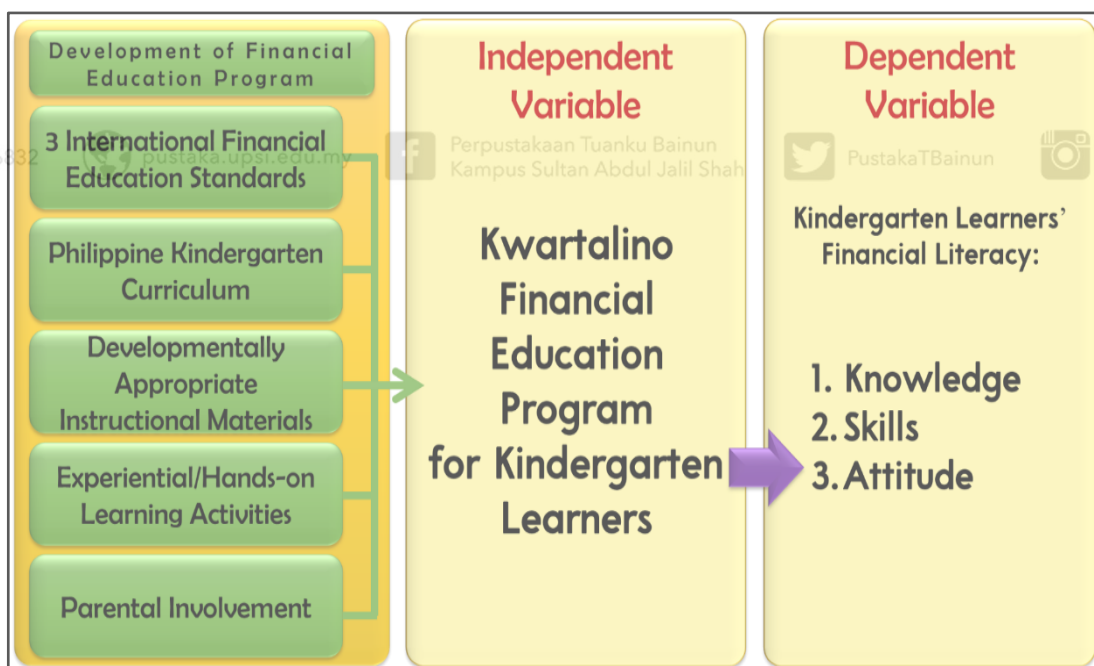


Figure 1.1. Conceptual Framework

This section presents the conceptual framework of the study. It provides a description of the different variables considered for this research. It also offers an explanation of the interplay of these variables and their relationships.



The study sought to develop and implement a financial education program for kindergarten learners and determine its effect on kindergarten learners' financial literacy. Depicted in Figure 1.1 is the conceptual framework that served as the basis and guide in the development and implementation of the financial education program. Illustrated in the conceptual framework are three boxes – the first box contains the different aspects that were considered in developing the financial education program. The second box shows the independent variable which is the Kwartalino Financial Education Program for Kindergarten Learners. The last box contains the dependent variable, that is, the kindergarten learners' financial literacy.

Under the first box are the five aspects that are considered in developing financial education program. The first aspect that was considered in the development of the program is the three financial education standards that are used in identifying suitable and appropriate contents of the program. One of the most important things to consider in developing a financial education program is identifying the contents based on a well-recognized financial education standards (Totenhagen et al., 2015; Jump\$Start, 2010). This is to ensure that the lessons provided in the program are appropriate and suitable to the abilities of the intended target learners. Building upon established financial education standards ensures that the financial competencies, objectives, and learning outcomes contained in the program are attainable and achievable by the learners.

These three financial education standards are: 1) Jump\$Start Coalition's National Curriculum in K-12 Personal Finance Education of 2015; 2) Child and Youth Finance International Education Learning Framework for Financial Education of 2012; and 3)





National Financial Literacy Framework and Standards by the National Financial Educators' Council. All of these financial education standards include financial topics for the kindergarten level. Moreover, these standards also present themes, categories, learning outcomes, knowledge statements, performance statements, big ideas, essential questions, and skills that are integral in developing a relevant financial education program for kindergarten learners.

The second aspect is the Philippine Kindergarten Curriculum. Since the financial education program is intended for Filipino kindergarten learners, it is equally important to take into consideration the content, scope, and sequence of the kindergarten curriculum. This is to be able to map and match the financial lessons with the contents of the curriculum. Likewise, considering the contents of the kindergarten curriculum enables a seamless integration of the financial topics with the lessons taught in the kinder curriculum. Further, analyzing the curriculum also provides for identifying developmentally appropriate learning activities that would enhance the financial literacy of the kindergarten learners.

The third essential aspect is the instructional materials that support the implementation of the financial education program. Available instructional material is an imperative in teaching learners about financial literacy (APEC, 2014; McCormick, 2009). Teachers should be provided with effective financial literacy materials, curricula, and resources (Financial Literacy and Education Commission [FLEC], 2006). Without available instructional materials to be used by the teachers and learners, it will be difficult to implement any financial education program, especially for kindergarten learners.





The fourth essential aspect of the financial education program that is taken into consideration is the use of experiential and hands-on learning activities that will be used in the delivery of the program. Effective methods and strategies in teaching financial education lessons include: 1) opportunity to engage with the “real world” financial context; 2) inquiry-based learning; 3) critical engagement and discussion; 4) problem-solving approaches; 5) cross-curricular approaches; 6) activity-based approaches including the use of role play and simulations; 7) cooperative learning experiences; 8) use of children’s literature; 9) use of children’s pretense/socio-dramatic play; and 10) involving families and the community (Birbili & Kontopoulou, 2015; OECD, n.d.). These and other learner-centered approach can all be utilized to ensure that the methods of delivering the financial education program are appropriate for the learners’ abilities, ignites their interest, and motivates them to learn the financial education lessons.

The last aspect that was considered is parent involvement. Financial education programs should include parents and encourage them to take active participation in teaching and imparting financial knowledge, skills, and attitude to their children. A child’s family financial socialization has an effect on child’s knowledge and understanding, attitudes, beliefs, and skills regarding money and money management concerns. According to Schuchardt, et al. and Ward, financial socialization is a process in which children acquire and develop “values, attitudes, standards, norms, knowledge, and behaviors that contribute to their financial viability, and well-being (Sherraden, Johnson, Guo, & Elliot, 2011). Family interaction and relationships as well as purposive financial socialization – the intentional efforts family members use to financially socialize each other, leads to a healthy financial behavior (Gudmunson & Danes,





2011). Thus, in developing this financial education program, parent involvement is given significance because parents also have an important role to play in the financial education of their children.

This study also sought to implement and determine the effect of the financial education program on learners' financial literacy. The study employed quasi-experimental design to determine the effects of the program on kindergarten learners' financial literacy (Johnson & Christensen, 2014).

Under the independent variable is the *Kwartalino* financial education program for kindergarten learners. It is composed of financial education contents, learning activities, and instructional materials. Contents include the financial lessons intended for the kinder learners. Learning activities includes the learning activities to be done inside the classroom and at home with the parents to teach and enrich the financial lessons. Instructional Materials includes the teaching-and-learning materials to be used in implementing the program.

Inside the third box is the dependent variable which is the financial literacy of kindergarten learners in terms of their financial knowledge, skills, and attitude. Included in the financial knowledge is the learners' knowledge on basic financial concepts that are included in the program. Financial skills are related to the learners' ability and competence on personal financial management. Finally, financial attitude includes the learners' attitude and feelings regarding money and other financial matters relevant to their everyday experiences and realities.





1.8 Importance of Research

The purpose of this study is to develop and implement a financial education program and determine its effect on kindergarten learners' financial literacy. This section demonstrates the contribution of the study to the body of knowledge in the field of financial literacy and financial education in early childhood education. The development of a financial education program suitable for young learners can be the initial steps toward developing a solid foundation of learners' financial knowledge, forming healthy financial-management skills and habits and positive financial attitude which in turn can be beneficial for the individual, their family, the society, and the country's economy. According to De Clerq (2009) individuals should acquire basic knowledge on personal finance at an early age to become financially literate adults.



Benefits associated with financial education and financial literacy among learners are mentioned in various literatures (Whitmer, 2015; APEC, 2014; Kezar & Yang, 2010; Johnson, 2009; OECD, 2006). In addition to this body of knowledge, this particular research provides additional value as it takes into consideration the different essential aspects that must be considered in developing a financial education program that is specifically targeted for kindergarten level following the recommendations of the different studies evaluating different financial education programs. Likewise, the present study also considers the vital role of education and the school in providing equal opportunities for children to develop their financial literacy which in the long run would affect their financial well-being. The design for integration and implementation of the financial education program as part of the classroom activities provides insights on how the school can be a viable avenue for teaching financial education among young





learners. APEC (2014) expresses that, “the more access to learning opportunities children are given, the more financially secure future generations will be.”

The development of this financial education program has the ultimate goal of providing learners the initial steps towards the development of their financial literacy. Many advocates of financial literacy believe that it is vital for learners to acquire this essential skill as they will need to make financial decisions in the future. APEC (2014) explains that financial education can lead to individual empowerment, family well-being, and community and economy’s economic growth.

Moreover, the present study is considered important and useful to the following stakeholders:



1. Kindergarten Learners

The findings of this study will directly benefit the kindergarten learners considering that the program is intended to provide them with a head-start in developing their financial literacy. Successful implementation of the program is aimed at developing their financial literacy in terms of financial knowledge, skills, and attitude.

2. Kindergarten Teachers

Since there is an increasing demand for integrating financial education in the national curriculum, the result of this study can greatly help teachers in incorporating financial lessons to their instructional plans. Planning and delivering of financial literacy lessons will be easier for teachers as the program already integrates financial lessons on the themes provided for in the curriculum.





3. Parents

Some parents are reluctant and unconfident in teaching money matters to their children. Other parents perceive the teaching of financial matters to their children to be awkward, unnecessary, and/or difficult. Still others feel that they are unqualified and unable to teach financial lessons to their children. With this financial education program and with the instructional materials that are contained in the package, parents would be able to gain confidence in teaching money lessons to their children in a way that connects with their economic realities and experience. It also provides them the opportunities to share and instill among their children their family financial values.

4. Curriculum Developers



The final product of this research study could serve as a basis for incorporating financial lessons not only in kindergarten level but also in the higher-grade levels in elementary.

5. Department of Education

Since there has not been any finalized national strategies in financial education in the country, and the Department of Education is one of the government sectors responsible for developing financial awareness and financial literacy as stated in Republic Act 10922, results of this study can be considered to guide the department in creating a holistic financial education program not only in kindergarten level, but also in the entire elementary grade level.





6. Policy Makers

The findings of this study could inform policy makers on the importance of financial education and the effect of integrating financial lessons in the national curriculum. This will help them in developing policies for incorporating and delivering financial education programs that is efficient and cost-effective.

7. Government

As one of the few studies conducted regarding financial education and financial literacy, the government may also use the results of this study in improving the status of financial education of the country.

8. Researchers

In the Philippine context, there are a limited number of studies done regarding financial literacy, specifically in the area of early childhood education. This research is an attempt to initiate studies regarding this field and spur interest of other researchers to also delve in this relatively new subject of research. This also aims to serve as an addition to the growing body of literature on the topic of financial literacy and financial education in early childhood.





1.9 Scope and Limitations

The research study aimed to develop, implement, and evaluate the effectiveness of a financial education program for kindergarten learners. The scope and limitations are described in three aspects.

1. For the study's development of the financial education program

The financial lessons in the financial education program were designed and developed based on three international financial education standards and benchmarks - the Jump\$Start Coalition's National Curriculum in K – 12 Personal Finance Education 2015, the Child and Youth Finance International Education Learning Framework for Financial Education (2012), and the National Financial Literacy Framework and Standards by the National Financial Educators' Council (NFEC) and was integrated to the present Kindergarten Curriculum. Suitability and appropriateness of the different components of the financial education program for the Filipino Kindergarten learners were validated by a pool of experts in the field of early childhood curriculum and economics.

2. For the study's implementation – locale and participants

The research study was implemented in one of the public schools in Muntinlupa City, Philippines. Two kindergarten classrooms were used for the study – one served as the experimental group and the other served as the control group. All participants are Filipino children aged 5 years old at the time of entry to the kindergarten class. Kindergarten learners who are assigned in each class are not chosen based on any admission test since elementary public schools in the Philippines admits all children





aged 5 years old to be enrolled and attend in kindergarten class. Furthermore, these children are assigned in each class based on a first-come, first-serve basis until the maximum number in one class is reached. The financial education program was implemented in the second quarter of the school year 2017-2018 from the second week of August to October 2018. Participants of the study mostly come from low-to-middle income families with the exception of one participant in the experimental group whose parent works abroad and is identified as high-income earner.

3. For the study's evaluation

The study sought to evaluate the effectiveness of the financial education program by determining its effects on the learners' financial literacy as well as in terms of parents' and teachers' perspectives of the program. In terms of financial knowledge, the researcher developed a financial knowledge test that was given before and after the implementation of the program to determine if there are any significant differences on learners' financial knowledge. To support this, parents' and teacher's perspectives were also identified to determine the program's effect on their child's financial knowledge, skills, and attitude. Finally, parents and the teacher were also interviewed to identify their perspectives regarding the financial education program.

1.10 Operational Definition

1. Financial Education

According to OECD (2005), it is the process by which financial consumers/investors improve their understanding of financial products, concepts and risks and, through information, instruction and/or objective advice, develop the skills and confidence to





become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being. The UNICEF (2012) gave the following simple definition: “Financial education inculcates the ability to be both financially literate and financially capable.” Financial education means “the provision of educational instruction and/or materials designed to increase the financial knowledge and skills of children and youth” (CYFI, 2012).

In this study, financial education is a program targeted to young learners to teach them basic personal financial concepts and principles to raise their awareness, develop and enhance their financial knowledge, skills, and attitude. In this study, financial education program refers to a personal financial education program targeted for kindergarten learners entitled *Kwartalino*. The *Kwartalino* Financial education program is composed of: 1) financial lessons; 2) learning activities; and instructional materials.

1a. Financial Lessons

These are the seven financial lessons included in the *Kwartalino* Financial Education Program. These lessons are identified based on three international financial education standards - the Jump\$tart Coalition’s National Curriculum in K – 12 Personal Finance Education (2015), the Child and Youth Finance International Education Learning Framework for Financial Education (2012), and the National Financial Literacy Framework and Standards by the National Financial Educators’ Council (NFEC) and was integrated in the topics and lessons included in the second quarter to the present Philippine Kindergarten Curriculum.





The seven financial lessons are: 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*).

1b. Learning Activities

These pertain to the activities and tasks that are intended to present and teach financial lessons among young learners. In the *Kwartalino* Financial Education Program, these are the classroom activities included in the Teacher's Instructional Plan such as the read-aloud session, presentation and discussion, and enrichment activities. These also pertain to the activities included in the Learner's Workbook which includes three activities for each lesson. These are: 1) Study this (*Pag-aralan*); 2) Do with Dad and Mom (*Isama si Tatay at Nanay*); 3) Think and Do (*Pag-isipan*).

1c. Instructional Materials

These refer to the materials that are utilized for teaching and enriching the financial lessons included in the program. It includes the Program Overview, the Matrix of *Kwartalino* Lessons, Kinder Learning Domains and Competencies for Three International Financial Education Standards, Teacher's Instructional Plan, and the Seven Financial Education Stories for teacher's use. Another instructional material is the Learner's Workbook for the kindergarten learners' and parents' use.





2. Financial Literacy

According to Organization for Economic Cooperation and Development- International Network of Finance Education [OECD-INFE] (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”. Álvarez and González (2017) asserts that financial literacy is “a combination of financial knowledge, attitudes and behaviors, key for making informed decisions and solving financial problems”. Remund (2010) defines financial literacy as a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate, short-term decision-making and sound, long-range financial planning, while mindful of life events and changing economic conditions.



Applying these definitions in this study, financial literacy is defined as a measure of the degree to which the kindergarten learners understands basic financial concepts (based on the seven financial education lessons – e.g. identifying needs and wants, earning, saving, spending, etc.), showing emerging skills, abilities, behaviors, attitude, and confidence to manage personal finances (e.g. pocket money) through age appropriate, short-term decision-making and sound but limited future financial planning (e.g. saving for a school material). Further, financial literacy is comprised of the following operational variables:





3. Financial Knowledge

Mason and Wilson (2000) defines financial knowledge involves understanding of financial concepts as it relates to personal finance and managing money. According to Alvarez 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, Despard, and Osei-Akoto (2012) refer to financial knowledge as the “understanding one has of important personal finance concepts, like budgeting and saving”. In this study, financial knowledge is the knowledge and understanding of basic financial concepts as included and presented in the seven financial lessons of the *Kwartalino* Financial Education Program. These lessons are - 1) identifying needs and wants; 2) sharing; 3) earning; 4) being careful; 5) spending; 6) saving; and 7) helping others.



4. Financial Skills

Delgadillo (2014) purports that “skills allude to the ability to use knowledge and apply it in the appropriate behavioral aspect of the construct”. The Jump\$tart’s National Standards in K-12 Personal Finance Education (2015) provides benchmarks which describes the skills that demonstrate students’ ability to apply knowledge to everyday financial decisions. In the National Financial Educators’ Council (NFEC) Financial Literacy Framework and Standards, financial skills are the specific competencies that children in different levels are expected to develop according to the different financial themes stipulated in their framework. In this study, this is the ability to apply one’s knowledge and understanding of basic financial concepts for personal financial management across a range of different contexts. However, for this study, financial skills are limited to the financial lesson and topics presented in the financial education





program. In addition, financial skills are used interchangeably with the term financial behaviors and financial capabilities.

5. Financial Attitude

Clado's (2016) definition of financial attitude refers to an "individual's subjective beliefs or evaluation about money". According to Chowa et al. (2012) "financial attitudes refer to one's beliefs and values related to various personal finance concepts, such as whether one believes it is important to save money". Álvarez and González (2017) refer to financial attitudes as "individual characteristics that take the form of tendencies towards a financial practice or action. It shows the inclination or likelihood of a person to undertake a behavior". In this study, financial attitude pertains to the kindergarten learners' beliefs and feeling, either positive or negative, regarding money

and other related financial matters.



1.11 Summary

This chapter presents an overview of the research study conducted. This study sought to develop a financial education program specifically designed for kindergarten learners. It also aimed to implement the financial education program using quasi-experimental design. The study also sought to determine parents' and teacher's perspectives on how the financial education program affected the learners' financial literacy in terms of their knowledge, skills, and attitude.





The chapter provides the background of the study, the reasons for conducting the research, the central problem of the study, the conceptual framework, research objectives and questions as well as the null hypotheses that served as a guide and blueprint for the researcher in the conduct of the study. Finally, significance of the study, operational definition of key terms, and limitations of the study are also offered.

