



**The Effectiveness of Educational Scaffolding Strategies in
Developing Basic Scientific Operations of
Kindergarten Children in Jordan**



**A Thesis
Submitted to the Faculty of Educational Sciences as a Partial
Fulfillment of the Requirement for Master Degree in
Kindergarten**

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Committee Decision

This Master's thesis submitted by the student:

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On 14/1/2020, titled


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Developing Basic Scientific Operations of Kindergarten
Children in Jordan**

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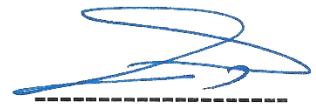
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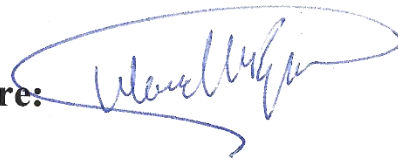


Authorization Form

I, **Ward M. Barqawi** authorize the Isra University to supply copies of my thesis to libraries or establishments or individuals upon request according to the Isra University regulations.

Name: Ward M. Barqawi

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Date: 14/1/2020

Dedication

To My Brother Mohammad,
You were the inspiration to me in life

To My Mom and Dad,
You were always the power to my heart

To My Soul Mom Dr. Zahria,
You gave me strength in order to keep up with my Thesis

To My Family Sisters and Brothers,
You were the bright side of giving me hope

To My Love Emad and My Princess Leya,
You were supporting me always with positive vibes, I Love You

To My Partner and Friend Ayat,
You were the lovely part in my Master trip

To Those Who Inspired it,
But will not read it

Ward M. Barqawi

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In the present world of competition, there is a race of existence in which those are having will to come forward succeed. Project is like a bridge between theoretical and practical work. With this will I joined this particular project. First, of all, I would like to thank the supreme power the “Almighty God” who is obviously the one who has always guided me to work on the right path of life, without his grace, this project would not have become a reality. I am feeling obliged to take the opportunity to sincerely thank Dr. Zahria Abdel Haq my supervisor, who gave me love, respect, and knowledge. Special thanks to the Islamic Educational College represented by Dr. Jumana Abu-Hijleh the general director of IEC for giving me the opportunity to apply my Master Thesis experiment at IEC kindergarten. Moreover, I am highly obliged in taking the opportunity to sincerely thank all staff members of kindergarten department at IEC for their generous attitude and friendly behavior. At last but not least, all thanks to the Discussion Committee for giving me tips and hints on my thesis to show up in its best final shape. I have no valuable words to express my thanks, but my heart is still full of favors received from every person.

Ward M. Barqawi

Report on Language Correction

I, hereby, **Dr. Isam Kayed** ascertain that the thesis entitled:
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Written by **Ward M. Barqawi**. Was edited by me and is now void
of errors.

Accordingly, I attach my signature and seal of the center.

Table of Contents

Committee Decision	II
Authorization Form	III
Dedication	IV
Acknowledgement	V
Report on Language Correction	VI
Abstract	XI
Chapter One: Background of the Study	1
1.1 Introduction	2
1.2 Statement of the Problem	12
1.3 Study Questions	13
1.4 Importance of the Study	14
1.5 Objectives of the Study	15
1.6 Limitations of the Study	16
1.7 Delimitations of the Study	16
1.8 Statistical Treatment of the Study	17
1.9 Terminology and Definitions of the Study	18
Chapter Two: Literature Review	21
2.1 Early Childhood Education (ECE)	22
2.2 Educational Scaffolding Strategies (ESS)	23
2.2.1 Nature of Educational Scaffolding Strategies	27
2.2.2 Zone of Proximal Development (ZPD)	29
2.2.3 Levels of Educational Scaffolding Strategies	34
2.2.4 Types of Educational Scaffolding Strategies	35
2.2.5 ESS in Kindergarten Classroom (KG)	37
2.2.6 Social Context of ESS	40
2.3 Basic Scientific Operations Skills (BSOS)	41
2.3.1 Integrated Scientific Operation Skills (ISOS)	47
2.3.2 Significance of BSOS	49
2.3.3 Features of BSOS	49
2.3.4 BSOS Test	50
2.3.5 Current Study BSOS	51
2.4 Previous Studies	53
2.4.1 Studies Concerning ESS	54
2.4.2 Studies Concerning BSO	61
2.4.3 Researchers Review	65

Chapter Three: Methodology and Procedures	72
3.1 Research Methodology	73
3.2 Population of the Study	74
3.3 Sample of the Study	74
3.4 Instruments of the Study	76
3.5 Test Validity	78
3.6 Test Reliability	79
3.7 Educational Scaffolding Strategies Guide	80
3.8 Procedures of the Study	83
3.9 Variables of the Study	85
3.10 Design of the Study	85
3.11 Statistical Treatment of the Study	86
Chapter Four: Results of the Analysis	87
4.1 Question One	88
4.2 Question Two	94
4.3 Question Three	96
4.4 Question Four	98
Chapter Five: Discussion and Recommendations	100
5.1 Discussion of Analysis	101
5.2 Summary	104
5.3 Recommendations	106
References	107
Appendixes	121

List of Tables

Table #	Table Title	Page #
1	Demographic Characteristics of Respondents	74
2	Results of the Independent Sample T-Test of the Experimental and Control Groups in the Pre-Test	75
3	Coefficient of Test Stability in Basic Scientific Operation Skills	80
4	Study Design	85
5	Means and Standard Deviations of the Overall Pre & Post-Test Children Scores, and Adjusted Means & Standard Errors	89
6	The Results of ANCOVA of the Children Scores on the Post-Test	89
7	Means and Standard Deviations for Each Level in the Pre and Post-Test Scores, and Adjusted Means and Standard Deviations for Each Level in the Post-Test Scores	91
8	MANCOVA Results for Each of the Post-Test Levels	92
9	Means, Standard Deviation and Independent Samples T-Test of the Impact of Gender on the Performance of Children in the Experimental Group	94
10	Paired Samples T-Test Results	96
11	Means, Standard Deviation and Independent Samples T-Test of the Impact of Gender on the Performance of Children in the Experimental Group in the Consecutive-Test	98

List of Appendences

Appendix #	Appendix Title	Page #
1	List of Basic Scientific Operations Skills for Kindergarten Children (5-6) Years	121
2	Testing the Basic Scientific Operations Skills for Kindergarten Children (5-6) Years	123
3	Teachers guide of the educational material for using educational scaffolding strategies in developing basic scientific operations of kindergarten children	140
4	List with the names of evaluation specialists (educational scaffolding guide, list of basic scientific operations, and basic scientific operations test)	185
5	Facilitation Letter	186

Table of Abbreviations

ESS	Educational Scaffolding Strategies
BSOS	Basic Scientific Operation Skills
ISOS	Integrated Scientific Operation Skills
ZPD	Zone of Proximal Development
IEC	Islamic Educational College
Kg2	Kindergarten level 2
ECE	Early Childhood Education
UNESCO	United Nations Educational, Scientific and Cultural Organization
SPSS	Statistical Package for Social Sciences

**The Effectiveness of Educational Scaffolding Strategies in
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Abstract

This study aimed to characterize the effectiveness of educational scaffolding strategies in developing basic scientific operations of kindergarten children in Jordan, the study sample consists of (45) children of kg2 level (5-6) years, was chosen intentionally, distributed to the two study groups: (22) children in the experimental group, and (23) children in the control group. They were chosen from the Islamic Educational College IEC Kindergarten affiliated with the Ministry of Education in Amman, for the academic year 2019/2020.

To achieve the study goals, the researcher prepared the study tools represented in: list of basic scientific operations for kindergarten children, educational guide using educational scaffolding strategies, and basic scientific operations test for kindergarten children after making sure of its validity and reliability. The results of the study showed a difference in the adjusted mean scores of the educational scaffolding strategies group and the control group in favor of

the educational scaffolding strategies group, ANCOVA was used to analyze children scores based on the variable of the teaching method, there is a significant difference at ($\alpha = 0.05$) between the adjusted mean scores of the overall performance on the Post-Test in favor of the experimental group, taught with educational scaffolding strategies compared with the control group who have been taught with traditional method. The adjusted mean of the experimental group was found to be (27.03) in comparison with the mean score of the control group (12.39), who were taught in the traditional method. Moreover, means and standard deviation of males and females at the experimental group results showed that there are no statistically significant differences at the level of significance ($\alpha = 0.05$) between males and females at the experimental group, in addition to all operations or skills. Additionally, results showed that there are statistically significant differences at the level of significance ($\alpha = 0.05$) between the mean scores of the members of the experimental group on the scale of the basic scientific operations between the Post-Test and Consecutive-Test in favor of Post-Test, in addition to the fields (Observing, Classifying, and Predicting Skills). On the other hand, measuring skills showed no statistically significant differences at the level of significance ($\alpha = 0.05$) between the mean score's members of the experimental group. Furthermore, results showed no statistically significant differences at the level of significance ($\alpha = 0.05$) between males and females at the experimental group in the Consecutive-Test, in addition to all operations.

Key Words: kindergarten Children – Educational scaffolding Strategies – Basic Scientific Operations.