

The Islamic University–Gaza
Research and Postgraduate Affairs
Faculty of Education
Master of Curriculum and Teaching Methods



الجامعة الإسلامية – غزة
شئون البحث العلمي والدراسات العليا
كلية التربية
ماجستير المناهج وطرق التدريس

The Impact of Project-Based Learning Strategy on 3rd Graders' Acquisition of English Vocabulary and Leadership Skills at UNRWA Schools in Gaza

أثر استخدام استراتيجية التعلم القائم على المشروع على اكتساب
مفردات اللغة الإنجليزية ومهارات القيادة لدى طلبة الصف الثالث
الأساسي في مدارس الأونروا بغزة

Safaa Ibraheem Migdad

Supervised by

Dr. Sadek S. Firwana

Assistant Prof. of Teacher Education

**A thesis submitted in partial fulfillment of the requirements for the degree of
Master of Curriculum and Teaching Methods**

October/2016

إقرار

أنا الموقعة أدناه مقدمة الرسالة التي تحمل العنوان:

The Impact of Project-Based Learning Strategy on 3rd Graders' Acquisition of English Vocabulary and Leadership Skills at UNRWA Schools in Gaza

أثر استخدام استراتيجية التعلم القائم على المشروع على اكتساب مفردات اللغة الإنجليزية ومهارات القيادة لدى طلبة الصف الثالث الأساسي في مدارس الأونروا بغزة

أقر بأن ما اشتملت عليه هذه الرسالة إنما هو نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد، وأن هذه الرسالة ككل أو أي جزء منها لم يقدم من قبل الآخرين لنيل درجة أو لقب علمي أو بحثي لدى أي مؤسسة تعليمية أو بحثية أخرى.

Declaration

I understand the nature of plagiarism, and I am aware of the University's policy on this.

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted by others elsewhere for any other degree or qualification.

Student's name:	صفاء إبراهيم مقداد	اسم الطالبة:
Signature:	صفاء إبراهيم مقداد	التوقيع:
Date:	2016/10/20	التاريخ:



نتيجة الحكم على أطروحة ماجستير

بناءً على موافقة شئون البحث العلمي والدراسات العليا بالجامعة الإسلامية بغزة على تشكيل لجنة الحكم على أطروحة الباحثة/ صفاء ابراهيم حسين مقداد لنيل درجة الماجستير في كلية التربية/ قسم مناهج وطرق تدريس وموضوعها:

أثر استخدام استراتيجية التعلم القائم على المشروع على اكتساب مفردات اللغة الانجليزية ومهارات القيادة لدى طلبة الصف الثالث الأساسي في مدارس الأونروا بغزة

The Impact of Using Project-Based Learning Strategy on 3rd Graders' Acquisition of English Vocabulary and Leadership Skills at UNRWA Schools in Gaza"

وبعد المناقشة العلنية التي تمت اليوم الاثنين 07 ربيع الأول 1438هـ، الموافق 2016/12/06م العاشرة

صباحاً في قاعة المؤتمرات بمبنى اللحيان، اجتمعت لجنة الحكم على الأطروحة والمكونة من:

د. صادق سالم فروانة مشرفاً و رئيساً
أ.د. عوض سليمان قشطة مناقشاً داخلياً
د. محمد عبد الفتاح حمدان مناقشاً خارجياً

وبعد المداولة أوصت اللجنة بمنح الباحثة درجة الماجستير في كلية التربية/قسم مناهج وطرق تدريس.

واللجنة إذ تمنحها هذه الدرجة فإنها توصيها بتقوى الله ولزوم طاعته وأن تسخر علمها في خدمة دينها ووطنها.

والله ولي التوفيق ،،،

نائب الرئيس لشئون البحث العلمي والدراسات العليا

أ.د. عبدالرؤوف علي المناعمة

Abstract

The Impact of Project-Based Learning Strategy on 3rd Graders' Acquisition of English Vocabulary and Leadership Skills at UNRWA Schools in Gaza

Study Aim: This study aimed at investigating the effectiveness of project-based learning strategy on developing third graders' achievement level in vocabulary and their leadership skills.

Study Methodology: To answer the study questions, the researcher adopted the experimental approach.

Study Sample: The researcher purposively chose (76) third graders from Al Zaitun Co-ed Elementary C School in Gaza for the experiment and randomly chose two classes of third graders. The participants were distributed into two equivalent groups, each of which consisted of (38) students. Project-based learning strategy was used in teaching the experimental group, while the traditional method was used with the control one during the first term of the school year (2015-2016).

Study Tool: The tools included a pre-post achievement test and an observation card for the leadership skills (with pre & post applications). The gathered data were statistically analyzed by using the Statistical Package for Social Sciences (SPSS). The researcher used the t-test independent sample and the effect size technique.

Study Results: The results of the study revealed that there were statistically significant differences in the mean scores of the pre-posttest and the observation card in the post application in favor of the experimental group. Such findings were attributed to the use of the project-based learning strategy in teaching vocabulary of English language. Taking into account this large impact that the findings showed.

Study Recommendations: the researcher recommended the use of project-based learning strategy to develop English language vocabulary. Moreover, she recommended the use of the same strategy to develop other school subjects. She also suggested that further research should be conducted on the effect of other project-based learning strategies on other dimensions of learning other school subjects and different grades and leadership skills among other different grades such as pre-school stage.

ملخص الدراسة

أثر استخدام استراتيجية التعلم القائم على المشروع على اكتساب مفردات اللغة الإنجليزية ومهارات القيادة لدى طلبة الصف الثالث الأساسي في مدارس الأونروا بغزة

هدف الدراسة: هدفت هذه الدراسة للتعرف إلى أثر استخدام استراتيجية التعلم بالمشروع على تحصيل مفردات اللغة الانجليزية ومهارات القيادة لدى طلبة الصف الثالث الابتدائي في مدارس الانروا بغزة.

عينة الدراسة: قامت الباحثة باختيار مدرسة الزيتون الابتدائية المشتركة ج بمحافظة غزة بطريقة قصدية حيث بلغت عينة الدراسة (76) طالب وطالبة، ثم تم اختيار صفين من الصف الثالث بطريقة عشوائية، حيث مثل الصفان مجموعتين احدها تجريبية تكونت من (38) من الطلبة والآخرى ضابطة تكونت من (38) من الطلبة أيضا. وقد تم التأكد من تكافؤ المجموعتين. واستخدمت الباحثة طريقة التعلم بالمشروع في تدريس المجموعة التجريبية، بينما استخدمت الطريقة التقليدية في تدريس المجموعة الضابطة وذلك في الفصل الدراسي الاول (2015-2016).

أداة الدراسة: تضمنت أدوات الدراسة أداتين رئيسيتين، الأولى هي اختبار قبلي بعدي لقياس تحصيل المفردات لدى الطلبة، أما الاداة الثانية فهي بطاقة ملاحظة لقياس مهارات القيادة لديهم. وقد تم تحليل النتائج إحصائيا باستخدام برنامج الرزم الإحصائية للعلوم الاجتماعية. واستخدمت الباحثة اختبار (ت) للعينة المستقلة ومعادلة حجم الأثر لقياس أثر توظيف استراتيجية التعلم بالمشروع على تحصيل مفردات اللغة الانجليزية ومهارات القيادة لدى طلبة المجموعة التجريبية.

نتائج الدراسة: أظهرت النتائج ان هناك فروق ذات دلالة إحصائية لصالح المجموعة التجريبية في التطبيق البعدي لاختبار تحصيل المفردات، كما وجدت فروق ذات دلالة إحصائية لصالح التطبيق البعدي لاختبار تحصيل المفردات على المجموعة التجريبية. وأظهرت النتائج أيضا وجود فروق ذات دلالة إحصائية لصالح المجموعة التجريبية في التطبيق البعدي لبطاقة الملاحظة، كما وجدت فروق ذات دلالة إحصائية لصالح التطبيق البعدي لبطاقة الملاحظة على المجموعة التجريبية، ويعزى ذلك لاستخدام استراتيجية التعلم بالمشروع في تدريس المجموعة التجريبية. وأيضا أظهرت النتائج عدم وجود فروق ذات دلالة إحصائية بين ذكور وإناث المجموعة التجريبية في التطبيق البعدي لاختبار تحصيل المفردات، كما أظهرت النتائج عدم وجود فروق ذات دلالة إحصائية بين ذكور وإناث المجموعة التجريبية في التطبيق البعدي لبطاقة الملاحظة.

توصيات الدراسة: في ضوء هذه النتائج، أوصت الباحثة على أهمية استخدام استراتيجية التعلم بالمشروع في تدريس مهارات اللغة الانجليزية وخصوصا تدريس المفردات للحصول على نتائج افضل. وكذلك أوصت الباحثة بضرورة إجراء دراسات أخرى للتعرف على أثر استخدام استراتيجية التعلم بالمشروع على تحصيل المواد الدراسية الأخرى، وكذلك إجراء دراسات للتعرف إلى أثر استخدام الاستراتيجية على تنمية مهارات القيادة لدى مراحل عمرية مختلفة مثل مرحلة ما قبل المدرسة.

Dedication

- To all those who enlightened my way towards success,
- To the soul of my father, who showed me the way,
- To my kind mother, who deserves my great love and respect for her endless sacrifice. Her prayers and encouragement have always been pushing me to be better; may Allah grant her health and happiness.
- To my beloved husband, whose love, continual support, and patience encouraged me to attain my goal.
- To my precious daughters and to my dear sons, whose smiles give me strength to continue amidst the toughest circumstances.
- To my dear brothers and sisters.
- To all my friends and colleagues.

Acknowledgements

All Praise be to Allah for enabling me to finish this thesis Who granted me knowledge and bestowed His everlasting mercy and bounties upon me during this long journey. Without His support and guidance, this work would not have been possible. As Prophet Muhammad, peace be upon him, said, "He who is thankless to people, is thankless to Allah." I greatly acknowledge the contribution of the sincere people who supported me throughout this study. This study would not have been accomplished without the support and assistance of those dedicated and helpful people.

First, I would like to thank my supervisor, Dr. Sadek Firwana for his support, advice and encouragement throughout this study; I am really grateful for his willingness to help in reviewing the study to come out to light. His useful comments were truly a tremendous help at every stage.

I would like to express my gratitude to my internal examiner Dr. Awad Keshta and my external examiner Dr. Mohammad Hamdan for reading my thesis and providing me with both crucial and critical viewpoints that enhance its value. My appreciation is also extended to the committee of referees for their assistance and considerable recommendations in assessing the validity of the study instruments.

My deep thanks and gratitude also go to my husband, Dr Amjad Joma, who was in the core of every part of this piece of work. I really appreciate his support and understanding; and mostly his patience with me.

I am also thankful to my school principal, teachers and students of Al Zaitun Co-ed Elementary School, where the study was carried out, who helped me sincerely in applying the experiment of the study.

Finally, I reiterate my endless acknowledgement and high appreciation to all who helped.

Table of Contents

إقرار	I
نتيجة الحكم	II
Abstract	III
ملخص الدراسة	IV
Dedication	V
Acknowledgements	VI
Table of Contents	VII
List of Tables	XI
List of Appendices	XIII
Chapter 1 Study Background	2
1.1 Introduction:	2
1.2 Statement of the problem:	5
1.3 Research questions:	5
1.4 Research Hypothesis:	6
1.5 Purpose of the study:	7
1.6 Significance of the study:	7
1.7 Limitation of study:	7
1.8 Operational Definitions of Terms:	8
Summary	9
Chapter 2 Literature Review	11
Section I Theoretical Framework	11
2.1 Vocabulary	11
2.1.1. Historical Overview	11
2.1.2. What is Vocabulary?	13
2.1.3. Importance of vocabulary	13
2.1.4. Types of vocabulary	15
2.1.5. Strategies and techniques of teaching vocabulary	16
2.1.6. What helps to remember vocabulary?	18
2.2. Project-based learning (PBL) strategy	21
2.2.1. Brief History of PBL	21
2.2.2. Characteristics of effective project-based learning:	24
2.2.3. What are the keys to successful projects?	25
2.2.4. Elements of authentic projects	26

2.2.5. What are the essential elements for project-based learning?	27
2.2.6. The importance of project-based learning:	28
2.2.7. The role of teacher:	32
2.2.8. Using Project-based learning in teaching vocabulary:	33
2.2.9. Using project-based learning in elementary schools.	34
2.2.10. What are the challenges facing teachers?	35
2.2.11. Steps of project-based learning:.....	36
2.2.12. How to implement project-based learning strategy in elementary schools?	39
2.3 Leadership skills	41
2.3.1. What is leadership?	41
2.3.2. Approaches to leadership:.....	42
2.3.3. Children leadership	43
2.3.4. Leadership traits identified in Children	45
2.3.5. Leadership skills	46
2.3.6. Leadership in education	49
Section II Literature Review	52
First: Studies related to the effectiveness of using project-based learning in teaching. .	52
Second: Studies related to learning and teaching vocabulary.....	60
General commentary of the previous studies.....	73
Chapter 3 The Methodology	77
Introduction.....	77
3.1 Research design:	77
3.2 Study population	77
3.3 Study sample.....	77
3.4 Study variables.....	78
3.5 Study instrumentation	78
3.5.1 Vocabulary achievement test	78
3.5.1.1. General aim of the test:	78
3.5.1.2. Table of specifications:	78
3.5.1.3 The items of the test:.....	79
3.5.1.4 The pilot study:	80
3.5.1.5 Test validity:	80
3.5.1.6 Test Reliability.....	82
3.5.1.7 Difficulty Coefficient:.....	83

3.5.1.8 Discrimination coefficient:	84
3.5.2 Observation card:	85
3.5.2.1. The aim of the observation card:	85
3.5.2.2. Steps of constructing the observation card:	86
3.5.2.3. Description of the observation card:	86
3.5.2.4 The pilot study:	87
3.5.2.5 Validity of the observation card:	87
3.6 Controlling the variables.....	92
3.6.1 English and General achievement variable:.....	92
3.6.2 Previous learning variable	92
3.6.3. Equivalence between male and female students in the test	93
3.6.4. Controlling the previous leadership skills variable for observation card	94
3.6.5 Equivalence between male and female students in the observation card	96
3.7 Statistical Analysis Procedures	97
Summary	97
Chapter 4 Data Analysis.....	99
Introduction.....	99
4.1 Answers to Research Questions.....	99
4.1.1 Answer to the first Research Question	99
4.1.2 Answer to the second Research Question.....	100
4.1.3 Answer to the third Research Question	102
4.1.4 Answer to the fourth Research Question	104
4.1.5 Answer to the fifth Research Question	107
4.1.6 Answer of the sixth Research Question.....	109
4.1.7 Answer to the seventh Research Question.....	110
Summary	112
Chapter 5 Discussion of findings, conclusion, and recommendations	114
5.1 Study Findings	114
5.2 Discussion of Findings.....	115
5.2.1 Discussion of the findings of the first and second hypotheses:	115
5.2.2 Discussion of the findings of the third and fourth hypotheses:	118
5.2.3 Discussion of the findings of the fifth and sixth hypotheses:	120
5.3 Study Conclusions:	120
5.4 Study Recommendations	121

5.4.1 Recommendations to teachers	121
5.4.2 Recommendations to supervisors	122
5.4.3 Recommendations to course designers	122
5.4.4. Recommendations for further studies:	122
References:	124
Appendices	133

List of Tables

Table (3.1): The distribution of the sample to the study two groups.....	77
Table (3.2): Table of specifications	79
Table (3.3): Correlation coefficient of the achievement test items.....	81
Table (3.4): Correlation coefficient of each skill within the total degree of the test.....	82
Table (3.5): Reliability coefficient by Spilt –half Technique.....	82
Table (3.6): (K_R21) Coefficients for the test.....	83
Table (3.7): Difficulty coefficient for each items of the test	84
Table (3.8): Discrimination coefficient for each test item.....	85
Table (3.9): Observation card domains.....	87
Table (3.10): Pearson Correlation coefficient for every domain item with the total degree of this observation card	88
Table (3.11): Correlation coefficient of each domain of the observation card with the whole domains	89
Table (3.12): Percentage of inter-observer agreement to assess the reliability of the observation check-list	90
Table (3.13): Alpha Cronbach Coefficients of the observation card domains	91
Table (3.14): Reliability coefficient by Spilt–half Technique.....	91
Table (3.15): T-test results of controlling English achievement variable.....	92
Table (3.16): T-test results of controlling previous learning in English variable.....	93
Table (3.17): T-test Independent Sample Results of differences between male and female in the experimental group in the vocabulary achievement test.....	94
Table (3.18): T-test results of controlling previous leadership skills variable	95
Table (3.19): T.test Independent Sample test of Differences between male and female students in the Experimental group in observation card.....	96
Table (4.1): T.test Independent Sample Results of Differences between the Experimental and the Control Group in the vocabulary Posttest.....	101
Table (4.2): The level of effect size (η^2) and (d).....	102
Table (4.3): "t" value, eta square " η^2 " , and " d " for the total degree of the test.....	102
Table (4.4): T- Test Paired-Samples Differences between the Pre- and the Post-Test.103	103
Table (4.5):"t" value, eta square " η^2 " , and " d " for the total degree.....	104
Table (4.6): T-test Independent Sample Results of Differences between the Experimental and the Control Group in the Post observation card	105

Table (4.7): "t" value, eta square " η^2 ", and "d" for the total degree.....	106
Table (4.8): T- Test Paired-Samples Differences between the Pre- and the Post applications of the observation card of the experimental group.	107
Table (4.9): "t" value, eta square " η^2 ", and "d" for the total degree.....	109
Table (4.10): T-test Independent Sample Results of Differences between male and female in the Experimental Group.....	110
Table (4.11): T-test Independent Sample Results of Differences between male and female in the Experimental Group.....	111

List of Appendices

Appendix (1) Achievement Pre-posttest.....	133
Appendix (2) Observation Card of Leadership Skills	137
Appendix (3) Referee Committee.....	146
Appendix (4 - A) A Sample of Lesson Plan (teacher's guide)	147
Appendix (4 -B) Work sheets (student guide).....	159
Appendix (5) Photos of the experiment.....	166

Chapter 1

Study Background

Chapter 1

Study Background

1.1 Introduction:

Learning English language has become an important need nowadays as it is one of the most essential and dominant languages around the world. In addition, it is the language of many aspects of life such as business, science, economics, technology and education. "During the last few decades there has been an increasing need to use English language for the expression of knowledge within specific professional fields" (Ardeo, 2003, p.110). This important role of English language assures the importance of learning and teaching it. And as Keshta (2000, p.4) emphasizes, English language through the years has become increasingly important, not only in the west but also in the Middle East and the rest of the world.

Cameron (2001, p.6) points out that there are some differences between teaching a foreign language to children in contrast to teaching adults. Children are often more enthusiastic and lively. However, they also lose interest more quickly and are less able to keep themselves motivated on a task they find difficult. Children do not find it easy to use language as accurately and fluently as older learners do; they use the language with more native-like accent. Also, they are not able to pay their attention for more than 10-20 minutes. Afterwards, that they start to be bored and tired, so the nature of these young learners needs active learning.

In the case of learning English as a second or a foreign language, vocabulary acquisition and learning are considered a fundamental demand. It would be impossible to learn English language without vocabulary. Accordingly, to learn English successfully and to use it effectively in the four basic skills, reading, writing, listening, and speaking, a learner must pay more attention to vocabulary. Wilkins (1972, p.111) assures that "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed".

Vocabulary encourages students to make use of language learning opportunities around them such as listening to the radio, listening to native speakers, using the language in different contexts, reading and watching television. In the past,

vocabulary learning and teaching were often given little priority. It was often to look after itself and received only incidental attention in many textbooks and language programs. Thus, although the course curriculum was often quite specific about aspects of teaching such as grammar, reading, or speaking, little specification was given to the role of vocabulary. (Richards & Renandya, 2002)

Many strategies have been used to facilitate the process of learning and teaching English language in general and vocabulary in particular. In order to overcome all the challenges that face the educational process concerning English as a second language, the teacher should employ appropriate teaching methods that encourage students to use language and at the same time meet their interests and improve their different practical life skills such as decision-making and critical thinking (National Academy Foundation, 2011).

Project-based learning is one of the new important and active strategies which is suitable to the children's needs for active learning. Hallermann, et al. (2011, p.5) define project-based learning as a systematic teaching method that engages students in learning important knowledge and 21st century skills through an extended, student-influenced inquiry process structured around complex, authentic questions and carefully designed products and learning tasks. Project-based learning offers a wide range of benefits to both students and teachers. A growing body of academic research supports the use of project-based learning in school to engage students, cut absenteeism, boost cooperative learning skills, and improve academic performance (George Lucas Educational Foundation, 2001). In addition, project-based learning has been shown to benefit a variety of students in developing collaborative skills. For example, through PBL elementary students learned to understand multiple perspectives and conflict resolution skills (Chan Lin, 2008). According to elementary teachers, PBL has several positive effects on student content knowledge. Compared to traditional classes, students in PBL classes performed better on assessments of content knowledge. Furthermore, Hallermann, et al. (2011, p.5) state that in project-based learning, students are pulled through the curriculum by a meaningful question to explore, an engaging real-world problem to solve, or a challenge to design or create something. Before they can accomplish this, students need to inquire into the topic by asking questions and developing their own answers. To demonstrate what

they learn, students create high-quality products and present their work to other people. Students often do project work collaboratively in small teams, guided by the teacher. In addition, in the PBL the learners investigate to find out answers to the questions which are not typically easy to answer. Finding the answers requires the learners to think deeply, investigate, collect the necessary data, predict, analyze the data, combine and interpret the results, evaluate the findings and finally present solutions to the problem (Baghri, et al., 2013, p.18).

Such activities either inside or outside the class require team leaders, so the teacher should motivate the students to practice this role and he/she should be aware of improving these important skills. Leadership skills are very important for students at different levels, especially for those young learners because today's children are the future leaders. The teacher inside the classroom can help his/her students to practice many leadership behaviors and skills by involving them in different activities such as planning activities, appointing group leaders, giving them the opportunity to act the teacher's role and asking them to make presentations. In addition, the teacher should think seriously to improve these leadership skills at this important early stage in the students' lives. Moody (2000) points out that learners who are characterized by leadership behavior are more able to deal with difficulties and challenges comfortably.

Several strategies strengthen and broaden educational experiences for gifted youth. Instructional units on leadership development should be provided at each grade level. The only sure way to develop kids as leaders is to give them real leadership responsibilities. Since leadership is learned over time through involvement with others, group participation offers unique opportunities for young people to belong, support others, and learn a variety of leadership styles. Students learn how to encourage others, create group spirit, and resolve conflict. They begin to understand diverse attitudes, skills, and talents and how to interact effectively with a diversity of people while working toward a common goal (Satralkar, 2006, p.6). The researcher believes that our students need to be trained on such leadership skills; they also deserve this interest as they are the future leaders. As a result, teachers should have access to workshops and leadership resources such as books, videos,

software and new strategies to provide an environment of educational experiences for children to begin on the path to successful leadership.

There are many studies around the world that investigated the effectiveness of project-based learning either on English language or on other subjects and aspects. Those studies proved the effectiveness of this strategy in achievement and on other different life skills. For example, Bagheri, et al. (2013) study assured the effects of this strategy on students' self-directed learning skills, whereas Baş (2011) study and many other studies investigated the effects of project-based learning on students' academic achievement and attitudes towards English.

The researcher of the current study dealt with an important category of students which is young learners in the elementary schools. Besides, the researcher wants to examine the effect of project-based learning strategy on vocabulary achievement in English as a foreign language in addition to the leadership skills of the third graders in Gaza UNRWA schools.

1.2 Statement of the problem:

The study problem is stated in the following major question:

What is the impact of Project-Based Learning strategy on 3rd graders' acquisition of English vocabulary and leadership skills ?

1.3 Research questions:

1. What are the leadership skills needed to be developed among 3rd graders through using PBL strategy?
2. Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary acquisition in the post application of the vocabulary test between the experimental group and control one?
3. Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary acquisition in the experimental group between the pre and post application of the vocabulary test?
4. Are there statistically significant differences at ($\alpha \leq 0.05$) between the level of leadership skills of the experimental group students and those of their counterparts in the control one at the final stages of the experiment?

5. Are there statistically significant differences at ($\alpha \leq 0.05$) in the level of leadership skills of students in the experimental group between the initial and final stages of the experiment?
6. Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary acquisition in the experimental group between the males and females?
7. Are there statistically significant differences at ($\alpha \leq 0.05$) in the level of leadership skills of students in the experimental group between the males and females?

1.4 Research Hypothesis:

1. There are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary learning in the post application of the vocabulary test between the experimental group and the control one.
2. There are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary learning in the experimental group between the pre and post application of the vocabulary test.
3. There are no statistically significant differences at ($\alpha \leq 0.05$) between the level of leadership skills of the experimental group students and those of their counterparts in the control one at the final stages of the experiment.
4. There are no statistically significant differences at ($\alpha \leq 0.05$) in the level of leadership skills of students in the experimental group between the initial and final stages of the experiment.
5. There are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary learning in the experimental group between the males and females.
6. There are no statistically significant differences at ($\alpha \leq 0.05$) in the level of leadership skills of students in the experimental group between the males and females.

1.5 Purpose of the study:

The study aimed to achieve the following objectives:

1. Examining the impact of PBL on 3rd graders' vocabulary learning.
2. Investigating the impact of using PBL on 3rd graders' leadership skills.

1.6 Significance of the study:

This study is significant because it tried to achieve the following:

1. Helping teachers to improve their vocabulary teaching techniques.
2. Encouraging teachers to use PBL activities with other English skills.
3. Encouraging teachers to improve PBL activities to use in other school subjects.
4. Helping students to better learn new vocabulary.
5. Helping students to decrease the level of fear and stress toward learning vocabulary and English class in general.
6. Reinforcing and improve the leadership skills among students.
7. Helping English supervisors to conduct training courses for teacher to reinforce using PBL in their classes.
8. Helping curriculum designers to modify the English language curriculum.

1.7 Limitation of the study:

This study was conducted within the following limitations:

1. It was applied on the third grade students at UNRWA schools.
2. It took place in the first semester of the year 2015-2016.
3. It was limited to the east of Gaza elementary schools.
4. It was applied on 3 units of “English for Palestine book”.

1.8 Operational Definition of Terms:

Following are some operational definitions of the study key terms.

1. Project-based learning strategy:

According to Technology Division of the Ministry of Education, Malaysia (2006), PBL is a model for classroom activity that shifts away from the usual classroom practices of short, isolated, teacher-centered lessons. Chiung-Sui Chang et al. (2011) also define PBL as an instructional strategy that trains learners on how to fully utilize acquired knowledge, skills and attitudes to solve problems and adapt to unforeseen circumstances in real life.

The researcher adopts the definition that PBL strategy is a group of activities inside or outside the classroom which are led by the learners who work in groups to solve certain defined problems to get better learning of new vocabulary and to improve their leadership skills.

2. Leadership skills:

Potter (1997, p.6) considers leadership as creating positive feelings on the part of the followers and emphasizing inspiration instead of control. Gill (2012, p.101) also defines leadership to accomplish useful and desirable things that benefit the people being led.

The researcher defines leadership skills as the skills that children should have to enable them to influence others in order to achieve common goals. They include “project planning, communication skills, problem solving, decision making, self-confidence, presentation skills, time management, team work, personal effectiveness skills, initiation, and opportunities for responsibilities.” They are improved by the PBL strategy and measured by the students’ scores in the leadership observation card.

3. Vocabulary:

According to the Longman Dictionary (1995), vocabulary is defined as all the words that someone knows, learns or uses. The researcher defines vocabulary as a group of words acquired by learners after being taught a certain topic that they

can use to express their ideas as well as they can understand from a context. They are measured by the students' mark in the vocabulary achievement test.

4. **Third graders**

Third graders are students in the third grade at school. Their age arranged between 8 -9 years old. They were studying English in the UNRWA schools for three years.

Summary

This chapter covered the study introduction, statement of the problem, research questions, research hypotheses, purpose of the study, significance of the study, limitations of the study and operational definition of terms.

The next chapter will be divided into two sections. The first section consists of theoretical framework related to three domains; the first domain discusses vocabulary achievement whereas the second domain discusses the project-based learning (PBL) strategy and the third domain is about leadership skills. The second section investigates the findings of previous studies related to the topic of the current study. Brief details are given, and then the researcher presents her comments on those previous studies.

Chapter 2

Literature Review

Chapter 2

Literature Review

In the light of the purpose of this study, which aimed at investigating the impact of using project-based learning strategy in developing third graders' vocabulary achievement and their leadership skills in Gaza, this chapter is divided into two sections. The first section consists of the theoretical framework related to three domains. The first domain discusses vocabulary achievement, whereas the second domain discusses the project-based learning (PBL) strategy and the third domain is about leadership skills. The second section of this chapter investigates the findings of previous studies related to the topic of the current study. Brief details are given, and then the researcher presents her comments on those previous studies.

Section I

Theoretical Framework

2.1 Vocabulary

There is no doubt that vocabulary plays a very important role in learning English as a foreign language. The linguist David Wilkins summed up the importance of vocabulary learning by saying his famous statement: “without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (Thornbury, 2002, p.13). This assures that the meaning is conveyed by vocabulary itself rather than grammar. Therefore, vocabulary is an important and focal topic to take into consideration in our recent studies.

2.1.1. Historical Overview

In the past, vocabulary teaching and learning were often given little priority in second language programs. It was often left to look after itself and received only incidental attention in many text books and language programs. Thus, the course curriculum was often quite specific about aspects of teaching such as grammar, reading, or speaking and little specification was given to the role of vocabulary (Richard & Renandya, 2002, p. 255). Vocabulary teaching and learning was not recognized as apriority in language until the 1970's and early 1980's as specialists

had given high credit to grammar and phonology at the expense of vocabulary (Merrem, 2009, p.5).

After many decades of being neglected and receiving little importance, teaching and learning second language (L2) vocabulary have now markedly become into the focus of interest of many applied linguistics researchers and language teachers (Barcroft, 2004; Decaricco, 2001; Read, 2000). However, Channell points in the book of “vocabulary and language teaching” written by Carter and McCarthy (1988, p.83) that vocabulary has rapidly changed in status from a neglected aspect of language learning to an area of growing research and publication. This assures that the interest in vocabulary and its important role has been renewed and developed.

It seems almost impossible to overstate the power of words; they literally have changed and will continue to change the course of world history (Pikulski and Templeton 2004). To assure this idea, Ayto, (1999) the lexicographer, in his introduction to 20th century words says “Words are a mirror of their times” .He shows how the new words that have come into English over the last 100 years illustrate that dictum. His work looks at vocabulary of the 20th century decade by decade. He notes the developments, in society, industry and culture that have given rise to additions to English vocabulary in the 20th century. Ayto also points that given that huge increase in the number of English-speakers since 1900 and the myriad new ideas, inventions, discoveries and schemes that have proliferated in that period, it would be astonishing if the vocabulary of English had not grown substantially. And so it has.

Throughout this brief history of vocabulary teaching, the researcher concludes that there is an urgent need to think deeply of this problem which is how to teach vocabulary properly for our students in order to acquire the second language easily, which of course touches the core of this study. For that, the researcher suggests through this study to use the project-based learning as a new strategy to teach the new vocabulary because most children are crazy about doing things by themselves using pictures and real objects.

2.1.2. What is Vocabulary?

Vocabulary refers to words we use to communicate in oral and print language. Receptive vocabulary refers to the words we understand through reading and listening. Productive vocabulary refers to the words we use to communicate through writing and speaking (Lehr, Osborn, & Hiebert, 2004 as cited in Padua & Hanson 2011, p.5).

According to Jackson (2003, p.202), vocabulary is the stock of words in a language, or that is known/ used by an individual or that is associated with a particular activity.

The following are other definitions of vocabulary:

- “All the words that someone knows, learns or uses” The language dictionary (1995).
- “The body of words used in a particular language or in a particular sphere”. The Oxford dictionary (2002)
- “The sum of words used or understood by, or at the command of particular persons or groups”. The American Heritage Dictionary

McCarthy and O’Dell (1999, p.2) illustrate what knowing a new word means; they state: “it is not enough to know the meaning of a word. You also need to know what words it is usually associated with, whether it has any particular grammatical characteristics, and how it is pronounced.”

The researcher concludes that vocabulary is the number of words and idioms that a person has to express his/her ideas as well as the number of words which he/she can understand from a context.

2.1.3. Importance of vocabulary

Vocabulary acquisition is considered as a fundamental area of language teaching and learning. It would be impossible to learn a language without its lexis. Bintz (2011, p.44) assures, “Enlargement of vocabulary has always been and continues to be an important goal in literacy and learning”. Pikulsk and Temleton (2004, p.1) also state “perhaps the greatest tools we can give student for succeeding

not only in their education but more generally in life, is a large, rich vocabulary and the skills for using those words". Tompkins, 2006 as cited in Lwankovitsch (2013, p.7) argues that students with larger vocabularies are the readers that are more adept at understanding text or being able to figure out unknown words using strategies that are readily available in their minds. He adds that children who enter school with a less robust vocabulary tend to never catch up with their more word equipped peers. August, et.al (2005, p.143) also share the same idea and point out that English language learners who experienced slow vocabulary development were less able to comprehend texts at the grade level than their peers were.

Having good vocabulary is valuable outside of school as well. Having just the right words in your mind, or at the tip of your tongue, lets you express your thoughts precisely. We have all experienced the frustration of knowing what we mean, but not being able to communicate our thoughts to others. That frustration is usually linked to vocabulary, because the more words you know, the easier it is to communicate your ideas. And the ability to communicate is necessary all through your life, not just in your school years (Learning Express, 2009, p.1).

As a result, educators must find a way to help students who lack enriching experiences with language and communication catch up with their peers and successfully participate in the classroom to grow in knowledge and understanding. Nassaji (2003, p.112) mentions that ESL (English as a Second Language) learners who have wider vocabulary knowledge can make more effective use of certain types of lexical inference strategies than their weaker counterparts. Richards and Renandya (2002, p.255) emphasize that vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read and write. They also clarify that without extensive vocabulary and strategies for acquiring new vocabulary, learners often achieve less than their potential and may be discouraged from making use of language learning.

Bromley (2002, p.7) points out that there are many benefits of learning vocabulary in all grade levels. First, it contributes to comprehension with proportion of 80 percent because vocabulary knowledge makes it easier for the

learners to infer the meanings of unfamiliar vocabulary. Second, it improves the achievement because learners with large vocabulary score higher in achievement tests than learners with small vocabulary. Third, it enhances communications because having more vocabulary helps learners to speak and write well and to understand what is heard and written easily and deeply. Fourth, it shapes thinking because vocabulary is a tool for analyzing, inferring, evaluating, and reasoning in either the written work or oral one.

Because of its important role in reading development, vocabulary instruction has been a well-researched area in the field of education for many years, and it is an area in which we continue to gain new insights (Padua & Hanson 2011, p.4).

2.1.4. Types of vocabulary

There are various ways to classify vocabulary. The researcher is going to handle the types of vocabulary as discussed in different books and by researches as follows:

- **Receptive/passive vocabulary and productive/active vocabulary**

Nation (2001) divides vocabulary according to its use into two types: receptive and productive vocabulary. Receptive and productive vocabulary is often called passive and active vocabulary. **Receptive/passive vocabulary** refers to the learner's understanding of vocabulary when he/she hears or reads it. In other words, it is words that learners recognize while hearing, listening or reading. That means words that learners can recognize and comprehend in the context of reading and listening material. On the other hand, **productive/active vocabulary** is what learners can use effectively in communication to express their ideas in speaking or writing. That means words that learners can recall and use appropriately in speaking and writing to express themselves and to convey their messages.

- **Notional words and functional words**

Notional words are nouns, pronouns, adjectives, numerals, verbs, adverbs; they name objects, actions, quality and so on, whereas, **functional words** are articles, prepositions, conjunctions, interjections, and so forth.

- **Brick and mortar vocabulary.**

Brick words are the vocabulary specific to the content and concepts taught in a specific discipline. Brick words tend to be found in glossaries and in bold face print in the content area text books. **Mortar words and phrases** are the general utility vocabulary required for constructing sentences and paragraphs to engage in discussions using academic English. Mortar words and phrases help to connect language together and are essential to its comprehension.

- **Denotation and Connotation**

Denotation of the word means teaching the meaning including mainly connecting a word with its equivalent in the real world. Apart from denotation, **connotation** of the word (associations and feelings, which arise when the word is heard) should be taught. Many vocabulary items have several meanings depending on context. Yule (1996, p.94) illustrates that denotation is used for the class of thing indicated by a word ‘whereas reference is used for a particular thing that is indicated when the word is used; for example, the word ‘cat’ denotes the class of all cats in the sentence a cat makes a good pet, but it refers to particular in the sentence a ‘cat scratched her arm’ .Connotation refers to the associations that a word has for us. Psychologists have long been aware of connotational meanings of words than their referential meaning.

- **Formal and informal words**

Formality, according to McCarthy and O’Dell (1999, p.14), is all about your relationship with the person you are speaking or writing to. If you use formal language, it may be because you wish to show respect, politeness, or to put yourself at a distance. Informal language can show friendliness, equality or feeling of closeness and solidarity with someone.

2.1.5. Strategies and techniques of teaching vocabulary

The success of the students in learning English vocabulary depends on the strategy used by teachers in teaching English vocabulary because the method of English language teaching is one of the very important parts which will have an influence on the children for increasing their ability to learn

vocabulary. Brummitt-Yale (2009, p.127) states some effective strategies that can be employed with students as follows:

- Pre-teaching Vocabulary Words
- Repeated Exposure to Words
- Keyword Method
- Word Maps
- Incidental Learning
- Context Skills.

Beck et al. (2002) indicate three strategies for learning vocabulary as follows:

Dictionary use: Dictionary use teaches students about multiple word meanings, as well as the importance of choosing the appropriate definition to fit the particular context.

Morphemic analysis: Morphemic analysis is the process of deriving a word meaning by analyzing its meaningful parts, or morphemes. Such word parts include root words, prefixes, and suffixes.

Contextual analysis: Contextual analysis involves inferring the meaning of an unfamiliar word by scrutinizing the text surrounding it. Instruction in contextual analysis generally involves teaching students to employ both generic and specific types of context clues.

Carlisle (2002) mentions the SLAP Strategy in learning vocabulary with the following steps:

- Say the word
- Look for clues
- Ask yourself what the word might mean; think of a word that expresses that meaning
- Put the word in the passage in place of the unfamiliar word. Does it make sense?

Learning Express (2009) also mentions the following tools and techniques for learning new words:

- **A Good ear.** Listening carefully is an ideal way to pick up new words. If you concentrate on listening for new words, you'll discover that you hear them every day.
- **Keep a personal word book.** When you read or hear an unfamiliar word, write it down so you can look it up later. Often, writing a word helps you commit it to memory.
- **Word search or crossword puzzle books.** These activities are popular because they keep minds active while teaching new and interesting words. They also provide a challenging, fun way to pass the time.
- **Dictionaries.** You should make it a habit to use a dictionary in two ways. First, look up the meanings of words you do not know. Second, while looking up a word, note other words printed near it. Browse and you may find some other, really fascinating ones you do not know on the same page!

The researcher concludes that dependence on a single vocabulary instructional strategy or technique will not result in optimal learning, so teachers must choose the best one which suits their students as well as the nature of vocabulary lists.

2.1.6. What helps to remember vocabulary?

It is well known in psychology that if the material to be memorized is organized in some fashion people can use thus organization to their benefit. This happens because organized material is easier to store in oral retrieve from long term memory (Thompson, 1987, p.46). When you set out to extend your vocabulary, try to learn words not individually, but as parts of a framework or network of inter-related meaning.

Acquiring vocabulary is the process that goes after the introduction and explanation of new vocabulary. Remembering new words is hard. According to Hadfield (1998, p.4), words are very slippery things. It takes a lot of effort to keep

them where you want them. It seems that in order to retain a word, students have to go through three distant processes that are:

1. Students fix the meaning of the word in their minds.
2. They make the word their own that is to personalize it so that it becomes part of their individual word store.
3. They use the words creatively in contexts that communicate with others.

It is important for the teacher to devise activities that would help the learner through these processes and at the same time he/she could make it fun. The main question here is how the learner keeps a new word and how does he/she make it part of his/her working vocabulary. Chin (2004, p.58) offers these strategies for remembering the meaning of new words:

- **Make up a sentence.** It means to invent a sentence either funny or serious that helps you remember a word meaning. For example, Max was freezing, so he piled on the maximum number of blankets.
- **Draw your word.** It means to do a sketch that helps you visualize a word meaning. For example, print the word jovial in large letters and draw a happy smile in the 'o'.
- **Use flash cards.** You can make small pieces of paper. On one side, write new word you want to remember. On the other side, write a definition and an example sentence. Keep reviewing those flash cards until you can easily recall each word meaning.
- **Listen to your voice.** Write the word and its definition and then say it aloud listening to your own voice. This reinforces your learning. Saying the words out loud helps too.

Lynch and Anderson (2012, p.2) point to other two strategies to make it easier to store and retrieve the learned vocabulary.

- Collect words together under a general heading mind map, spider gram classifying learning vocabulary in fields of meaning.

- **Synonyms:** Learning the differences between the words with meanings (synonyms, or near-synonyms) is an important aspect to avoid confusion. For example: paper- study- report- article.

Another approach to helping recall of vocabulary, which many learners have found useful, is the use of memorizing tricks or techniques called mnemonics. Lynch and Anderson (2012, p.10) have suggested three mnemonic techniques which have been found to be effective which are:

- **Mnemonic technique 1:** Paired associates

In this technique you think of a word in your own language which has some similarity in both form and meaning to the target word in English. The similarity needs to be strong. The first language word acts as a kind of link between the English word and its translation. These link words have been called “security words”. For example: an English-speaking learner of Russian who noticed the Russian word for eye ‘glaz’ links it to the English word glass. This could be associated with the target word through a security word.

- **Mnemonic technique 2:** Sound and meaning link in the second language

It is really an efficient technique for the students to look out for possible sound and meaning connections between words in the second language. For example, a student can learn the phrase (Prick up one’s ears) by associating it with pick up, which has similarities in form and meaning.

- **Mnemonic technique 3:** Spatial grouping.

It means rearranging words on a page to form patterns such as a triangle. Using this technique obviously improves vocabulary recall.

Thornbury (2002, p.24) suggests a few principles that can help to move the required word into permanent long-term memory

- **Repetition:** If words have been met at least for seven times over spaced intervals, for example, when reading, they are on good way to long-term memory.

- **Retrieval practice effect:** a kind of repetition that means the retrieval of word from memory, which helps the learner to recall it again later.
- **Spacing:** means not to teach too many vocabulary items together, but in small groups and with pauses between them.
- **Pacing:** means to provide the pupils enough time for particular work because each of them has his/her own pace and to enable them to work silently and individually.
- **Use:** means to put words to use in some interesting ways. The learners work together in pairs or small groups to list collocates for a given word.

2.2. Project-based learning (PBL) strategy

This part deals with components of project-based learning; such as the definition, characteristics, importance and benefits, challenges, the role of teacher and the role of student and also implementing the strategy in elementary schools.

2.2.1. Brief History of PBL

For over 100 years, educators such as John Dewey have reported on the benefits of experiential, hands-on, student-directed learning. Most teachers, knowing the value of engaging, challenging projects for students, have planned field trips, laboratory investigations, and interdisciplinary activities that enrich and extend the curriculum. The roots of PBL lie in this tradition. But the emergence of a method of teaching and learning called Project Based Learning is the result of important developments over the last 25 years (Shafaei, et al., 2007 p.2)

Project-based learning is not a new phenomenon – it was popular at the beginning of the 20th century; most notably championed by John Dewey and again in the 1970s. It is developed from Vygotsky's constructivism learning theory which sees students as active makers of meanings and deems that they construct their own knowledge through learning environment. This theory is based on the assumption that the children would learn better when they are working in collaboration with adults.

PBL is also based on the constructivist theory of Piaget and the whole-language movement. PBL allows learners to create meaning and reach understanding by exposure to challenges of new information, experiences or individuals anchored in the real-world, now, and built on thorough understanding of the past (Bin Harun, 2006, p.51)

2.2.2. What is project-based learning?

Hallermann et al. (2011, p.5) illustrate and summarize the idea of project-based learning. In Project Based Learning, students are pulled through the curriculum by a meaningful question to explore, an engaging real-world problem to solve, or a challenge to design or create something. Before they can accomplish this, students need to inquire into the topic by asking questions and developing their own answers. To demonstrate what they learn, students create high-quality products and present their work to other people. Students often do project work collaboratively in small teams, guided by the teacher.

In the PBL, the learners investigate to find out the answers to the questions which are not typically easy to answer. Finding the answers requires the learners to think deeply, investigate, collect the necessary data, predict, analyze the data, combine and interpret the results, evaluate the findings and finally present solutions to the problem (Bagheri et al., 2013, p.18).

The Buck Institute for Education (BIE), a US not-for-profit organization which helps teachers implement project-based learning in US schools, defines project-based learning as: a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to a complex question, problem, or challenge (Harper, 2013, p.10).

Hallermann, et al. (2011, p.5) define Project Based Learning as a systematic teaching method that engages students in learning important knowledge and 21st century skills through an extended, student-influenced inquiry process structured around complex, authentic questions and carefully designed products and learning tasks.

Furthermore, Patton and Robin (2012, p.13) point that ‘Project-based learning’ refers to students designing, planning, and carrying out an extended project that produces a publicly-exhibited output such as a product, publication, or presentation.

Project-based Learning (PBL), as Bin Harun (2006, p.3) points, is a model for classroom activity that shifts away from the usual classroom practices of short, isolated, teacher-centered lessons. Instead, PBL learning activities are long-term, interdisciplinary, student-centered, and integrated with real-world issues and practices. In PBL, students explore, make judgments, interpret, and synthesize information in meaningful ways.

According to Blumenfeld, et al. (1991, p.1), project-based learning is a comprehensive approach to classroom teaching and learning that is designed to engage students in investigation of authentic problems. In addition, Klein et al. (2009, p.8) define project-based learning as “the instructional strategy of empowering learners to pursue content knowledge on their own and demonstrate their new understandings through a variety of presentation modes”.

The National Academy Foundation defines the project itself as a complex effort that necessitates an analysis of the target problem analysis and that must be planned and managed, because of desired changes that are to be carried out in people’s surroundings, organization, knowledge, and attitude to life; it involves a new, complex task or problem; it extends beyond traditional organizations and knowledge; it must be completed at a point in time determined in advance.

It is obvious that project-based learning has been defined differently by various authors, but perhaps most of the previous definitions agree with the idea that the student is the most important item in the teaching and learning process. They all agree that project –based learning entails engaging students in tasks rather than telling them information.

The researcher of the current study defines project-based learning as: a group of activities inside or outside the classroom which are led by the learners who work in groups to achieve the main goal to get better learning of new vocabulary and to improve their leadership skills.

2.2.2. Characteristics of effective project-based learning:

Effective project-based learning has the following characteristics:

- Leads students to investigate important ideas and questions
- Is framed around an inquiry process
- Is differentiated according to student needs and interests
- Is driven by student independent production and presentation rather than teacher delivery of information
- Requires the use of creative thinking, critical thinking, and information skills to investigate, draw conclusions about, and create content
- Connects to real world and authentic problems and issues

Krajcik et al. (as cited in Chiung-Sui Chang et al., 2011, p.266) identify five features of PBL that teachers are familiar with as driving questions, investigations, artifacts, collaboration and technological tools.

Based on an exhaustive literature review, features of PBL projects are as follows:

1. A question and problem direct related activities that result in a summary report or product.
2. A product, presentation or a performance can be improved and applied for practical purposes;
3. Real life problems that students are interested in are raised so that they can interact with real life circumstances through the projects.
4. Students can develop products or works to solve questions or problems raised during learning.
5. Students collaborate in a team to achieve certain objectives in a defined time period.
6. Many disciplines are incorporated, allowing students to create multidisciplinary approaches to solve problems.

7. Students can define the problems, discuss views or forecasts, collect information, evaluate such information, make conclusions, create a product and construct required knowledge.

2.2.3. What are the keys to successful projects?

Harper (2013, p.17) listed these three keys to successful projects as follows:

- **Key 1: Exhibition** – students know from the outset that the product of the project will be displayed and viewed by others.
- **Key 2: Multiple drafts** – review your students’ work at various stages in the project, giving them valuable feedback and you the opportunity to see the improvement in their work.
- **Key 3: Critique** – build formal critique sessions into the multiple drafts approach: be kind, be specific, and be helpful.

Well-designed projects, according to the National Academy Foundation (p.4), ask students to:

- **Tackle real problems and issues that have importance to people beyond the classroom.** Projects emanate from issues of real importance to students and adults in the community and answer the age-old student question “Why do we need to know this?”
- **Actively engage in their learning and make important choices during the project.** Projects make room for student choice and creativity while still demanding student mastery of essential content, enabling students and teachers to interact as co-learners in the experience, rather than in the traditional student-teacher relationship.
- **Demonstrate in tangible ways that they have learned key concepts and skills.** Projects provide opportunities for students to produce observable evidence that they have mastered rigorous curricular standards as they apply their learning and solve the problem at hand. Projects and exhibitions also provide extensive evidence of process work and self-directed learning.

According to Hallermann, et. al (2011, p.5), they assure the flexibility of projects which can be featured with the following:

- A project should be a rigorous learning experience.
- The length of a project can vary.
- A project has typical phases.
- Projects can take many forms.

2.2.4. Elements of authentic projects

Boudersa and Hamada (2015, p.31) add that projects are said to be authentic when they have in common the following defining features:

- Student-centered, student-directed
- A definite beginning, middle, and end
- Content meaningful to students; directly observable in their environment
- Real world problems
- First hand investigation
- Sensitivity to local culture and culturally appropriate
- Specific goals related to curriculum and school
- A tangible product that can be shared with the intended audience
- Connections among academic, life, and work skills
- Opportunity for feedback and assessment from expert sources
- Opportunity for reflective thinking and student self-assessment

Principles for the users of project-based learning suggested by Mergendoller and Thomas (2011, p.46) are summarized as follows:

- Avoid bottlenecks within courses: schedule projects and end-of quarter assignments at different times.
- Avoid bottlenecks between courses: coordinate project schedules with other teachers.

- Use blocks scheduling to increase flexibility.
- Get students to think about the project well before they begin.
- Give students a rubric that communicates what they are responsible for.
- Reach agreement with students on grading criteria before the project begins.
- Build in the use of a research plan for recording what, why, how decisions.
- Use negotiation, as needed, to start students on productive tracks.
- Require frequent checkpoints and products to facilitate a sense of mission.
- Involve students in project design.
- Avoid making decisions for students.
- Match the grouping pattern to the context and need for expertise associated with the task.
- Consider forming groups so that novice students can learn from experienced students.
- Use the "jigsaw" technique to disseminate expertise within groups.
- Establish procedures and events to promote parent involvement.
- Use a variety of assessment methods.
- Include both individual and group grades.
- Emphasize individual over group performance.

2.2.5. What are the essential elements for project-based learning?

Both Harper (2013, p.15) and Hallermann, et al. (2014, p.7) agree on the following elements for project-based learning:

- **Significant content** – At its core the project **is** focused on teaching students important knowledge and skills, derived from standards and key concepts at the heart of academic subjects.
- **21st century competences** – Students build competences valuable for today's world, such as problem-solving, critical thinking, collaboration, communication, and creativity/innovation, which are explicitly taught and assessed.

- **In-depth enquiry** – Students are engaged in an extended, rigorous process of asking questions, using resources and developing answers.
- **Driving question** – Project work is focused by an open-ended question that students understand and find intriguing which captures their task or frames their exploration.
- **Need to know** – Students see the need to gain knowledge, understand concepts, and apply skills in order to answer the ‘driving question’ and create project products, beginning with an ‘entry event’ that generates interest and curiosity.
- **Voice and choice** – Students are allowed to make some choices about the products to be created, how they work, and how they use their time, guided by the teacher and depending on their age and experience of project-based learning.
- **Critique and revision** – The project includes processes for students to give and receive feedback on the quality of their work, leading them to make revisions or conduct further enquiry.
- **Public audience** – Students present their work to other people, beyond their classmates and teacher.

2.2.6. The importance of project-based learning:

Engaging students in active learning is important to let them achieve the higher level of learning. When students have a chance to search, solve problems, produce and present their production then they become more engaged in learning. This proves the importance of project-based learning because it focuses on a student as the center of learning and teaching process. The most important benefits of project-based instruction can be summarized in the following points: (Boudersa & Hamada 2015, p.31)

- Preparing students for work place
- Increasing motivation
- Connecting learning at school with reality
- Providing collaborative opportunities to construct knowledge

- Increasing social and communication skills
- Increasing problem-solving skills
- Enabling students to make and see connections between disciplines
- Providing opportunities to contribute to their school or community
- Increasing self-esteem
- Allowing students to use their individual learning strengths and diverse approaches to learning
- Providing a practical, real-world way to learn to use technology

Hallermann et al. (2011, p.8) emphasize the importance of project-based learning by stating that PBL is valuable because it effectively teaches content knowledge and skills, builds deeper understanding of concepts, and makes a school curriculum more engaging and meaningful for students. PBL is one of the best ways to prepare students for the demands of life, citizenship, and work in today's world. Hallermann et al. (2011, p.8) have summarized the importance of project-based learning in the following three points:

- It is an effective way to learn content knowledge and skills.
- It makes a school curriculum more engaging and meaningful.
- It builds readiness for 21st century work, life, and citizenship.

Project-Based Learning is widely recognized as an effective methodology. Its advantages are well documented: students are known to develop greater communicative, thinking and problem-solving skills with PBL rather than with regular lecture-based education. PBL often also excels in making the relationship between various concepts within a subject clearer, and has with success been used in interdisciplinary courses. (Shafaei,et al., 2007 p.2). The National Academy Foundation (p.10) emphasizes the same idea by stating that PBL is an effective strategy for teaching complex skills such as planning, communicating, problem solving, and decision making.

According to Bin Harun (2006, p.1), Project-based Learning is important in the learning process. It is touted to be the approach and means to achieve the 21st

century skills. Moving away from rote learning and memorization, Project-based Learning builds on individual strengths, and allows individuals to explore their interests in the framework of a defined curriculum. Project-based Learning is holistic in nature and incorporates the principles of providing challenging and complex work, interdisciplinary and encourages cooperative learning. Project-based Learning also lends authenticity to learning. While in practice, practitioners plan, implement and evaluate projects in real-world situations beyond the classrooms.

Bin Harun (2006, p.7) also adds that project-based learning helps students develop skills for living in a knowledge-based and highly technological society. Bin Harun listed the importance of project-based learning as follows:

- **Project-based Learning brings a new relevance to the learning at hand.** By bringing real-life context to the curriculum through a Project-based Learning approach, students are encouraged to become independent workers, critical thinkers, and lifelong learners. If students learn to take responsibility for their own learning, they will develop in the way to work with others in their adult life. Project-based Learning is not just a way of learning, but a way of working together. Besides students, teachers can communicate with administrators, exchange ideas with other teachers and subject-area experts, and communicate with parents, all the while breaking down invisible barriers such as isolation of the classroom, fear of embarking on an unfamiliar process, and lack of assurances of success.
- **Project-based Learning lends itself to authentic assessment.** Authentic assessment and evaluation allows systematic documentation of a child's progress and development. Project-based Learning lets the teacher have multiple assessment opportunities. It allows a child to demonstrate his/her capabilities while working independently. Project based Learning also develops the child's ability to work with his/her peers as well as building teamwork and group skills. A teacher learns more about the child as a person. It helps the teacher communicate in progressive and meaningful ways with the child or a group of children on a range of issues.

- **Project-based Learning promotes lifelong learning.** Lee Shulman, president of the Carnegie Foundation for the Advancement of Teaching stated, “Teaching has been an activity undertaken behind closed doors between moderately consenting participants.” Project-based Learning enables students, teachers, and administrators to reach out beyond the school building. Students become engaged builders of a new knowledge base and become active, lifelong learners thus taking control of their learning.
- **Project-based Learning accommodates students with varying learning styles and differences.** Children having different learning styles, build their knowledge on varying backgrounds and experiences. It is also recognized that children have a broader range of capabilities than they have been permitted to show in regular classrooms with the traditional text-based focus. Project-based Learning addresses these differences because students must use all modalities in the process of researching and solving a problem, and then communicating the solutions. When children are interested in what they are doing and able to use their areas of strength, they achieve at a higher level.

In addition, Foss et al. (2006, p.16) state that project-based learning enables EFL students to connect the English of the classroom to their own real-life interests. Another benefit of this approach is the final product. In addition to finishing the program with a grade and academic credits, students also all left with a tangible product of their work. Blumenfeld, et al. (1991, p.372) assure in this regard the importance of project-based learning. “Proponents of project-based learning claim that as students investigate and seek resolutions to problems; they acquire an understanding of key principles and concepts. Project-based learning also places students in realistic, contextualized problem-solving environments. Moreover, projects can serve to build bridges between phenomena in the classroom and real-life experiences.”

Teachers who use the project approach report that students show great interest and actively participate. They ask questions and follow up their own curiosity with investigations. Along with the motivation it provides, project work also integrates all areas of learning and aspects of child development. It offers many

chances to practice problem solving and critical thinking—skills that build language, math and scientific understanding. In fact, it helps children gain confidence in themselves and their abilities and develops in them the disposition to strive for understanding (Chard, 2013).

2.2.7. The role of teacher:

In implementing the project method, the focal point of the learning process moves from the teacher to the learners, from working alone to working in groups. (Fragoulis, 2009, p.114). Experienced PBL teachers report that they spend very little time promoting student engagement or handling student misbehavior. Teachers often spend their time participating in projects as peers rather than as classroom managers. (Mergendoller & Thomas, 2011, p.3).

In addition, Bin Harun (2006, p.57) points that the front load for the teacher in a PBL classroom is enormous. The entire project, all its documents, all its resources and all its assessments must be designed and put in place before students are introduced to the project. Then it gets easier. The teacher becomes a knowledge facilitator who teaches small work groups, provides individual assistance, and creates specialized work groups that answer a specific need to know.

Teachers who involve their students in project-based learning activities also find their own role logically and naturally changing. Rather than being simple dispensers of knowledge, they discover their primary tasks are to guide and coach and mentor their students. They teach their students how to question, and how to develop hypotheses and strategies for locating information. They become co-learners as their students embark on a variety of learning projects which chart unfamiliar territory. (Shafaei, et al., 2007 p.4)

Teachers in project-based learning enjoy their new role, since PBL allows a teacher to work more closely with students, acting more like a coach instead of the “deliverer of knowledge.” (Hallermann, et al.2011, p.16). The authors also continue to persuade teachers who are used to being the center of attention in their classroom and directing the children’s every move. They state: “You may think PBL is not for you. But although you do need to give up some control and allow

students to make choices and create their own questions and products, conducting a project may not be as big a change as you imagine. You still will be the focus much of the time. You're the "project manager" and are responsible for teaching the content knowledge and skills students need. You'll be providing structured lessons, facilitating the inquiry process, and guiding students through the process of creating products. Doing PBL doesn't mean giving students free reign to do and learn what they want. With some PBL experience, your students should be more able to work somewhat independently, but you play a vital role in framing the experience through careful planning, facilitating the inquiry process, assessing learning, and managing logistics.

The researcher sees that the teacher in project-based learning has obvious different role from another in tradition way. He is a facilitator of activities and tasks, an organizer of groups and students' roles, a monitor of students' work – checking and helping- and finally he is an evaluator of their final projects and the way they present them. In other words, teachers are no longer their students' primary sources of information. Instead, they are the designers of learning who created the conditions for the students to conduct their own enquiries, and advisers to whom learners can come as they create their product. Teachers do more coaching and modeling but less telling information.

2.2.8. Using Project-based learning in teaching vocabulary:

Using PBL in teaching vocabulary is a way to deal with how a long list of important vocabulary could be introduced to and learnt in a more flexible way by students taking a vocabulary lesson. The use of Project-Based Learning is considered as one way to get rid of the students from discontented condition into something as fun by playing as teachers or observers or creators (Nurnia, 2001). Through the project, students decided on how they would learn a certain number of words assigned to them. They chose appropriate strategies according to their preference, learning styles and multiple intelligences to develop a creative product in order to work or play with words. They also acquired the word throughout the project-making process such as during finding

out word meaning, writing them in a sentence or story, matching them with pictures and so forth.

Moreover, it is of necessity for students to explicitly learn vocabulary particularly those necessary for them. Project-based learning is considered to cater for both aspects of vocabulary learning ways which are explicit and implicit. By explicit, it means that through a project, the students decide what vocabulary to learn and how to learn it. By implicit, it means that they provide context for words through working on project during which learning and acquisition are jointly manipulated. (Nurnia, 2001).

The researcher sees that students are supposed to use the target vocabulary almost in all the stages of the project. The researcher as a teacher noticed that students use the target vocabulary better and better in each stage till they mostly master them when they stand out and present their project using all these learnt words.

2.2.9. Using project-based learning in elementary schools.

Knowledge plays an important role in early literacy. To build reading comprehension skills children need to develop broad content knowledge across domains, including science and social studies (Hallermann, et al., 2011, p.11) replying to the misconception which claims that young children are not ready for rich content. In elementary school, content-rich projects build background knowledge that influences comprehension. Additionally, literacy skills can be taught in the context of a project. PBL prepares children for 21st century challenges. Hallermann, et al. (2014, p.17) also point to a famous saying by Barack Obama in a speech at the Center for American Progress in this regards. He said: “Let’s be clear — we are failing too many of our children. We’re sending them into a 21st century economy by sending them through the doors of 20th century schools.” This shows the importance of developing our children and focusing on their best education.

Also, Çırak (2006) and Özdemir (2006) (as cited in Bas, 2011, p.11) saw in their studies that the project work helped the young learners to develop many skills

in English lesson like physical, intellectual, social, emotional and moral skills which young learners have to develop.

While project work supports the curriculum standards identified for testing, teachers do not teach to the test through project work. The emphasis is on the context in which learning is intrinsically motivating and engaging to young children. Through careful observation and skillful planning on the part of the teacher, curriculum goals can be integrated into project work. The teacher anticipates where a project may go, and includes elements of the required curriculum in her plans (Chard, 2013).

Helm and Katz (2011, p.3) assure that using project-based learning with children creates additional opportunities for growth of knowledge, skills, and dispositions when children ask their own questions, conduct their own investigations, and make decisions about their activities. Projects provide contexts in which children's curiosity can be expressed purposefully, and that enables them to experience the joy of self-motivated learning. Well-developed projects engage children's minds and emotions and become adventures that teachers and children embark on together. Projects also involve the child in making decisions about topic selection, investigation, and how to culminate the project.

2.2.10. What are the challenges facing teachers?

According to (Intel, 2007, p.2), there are specific challenges facing teachers while implementing project-based learning strategy such as:

- Recognizing situations that make for good projects
- Structuring problems as learning opportunities
- Collaborating with colleagues to develop interdisciplinary projects
- Managing the learning process
- Integrating technologies where appropriate
- Developing authentic assessments

A serious difficulty cited by Fragoulis (2009, p.117) concerned the fact that some students felt that the duration of the project was too long. Some students

seemed to have lost interest and motivation by the end of the project. It seems that short-term projects may have more validity for primary school learners than long-term ones. Another challenge was that some students had difficulty accepting the new role of the teacher as a facilitator and coordinator, and not as a source of knowledge and provider of solutions. However, most of them soon realized that the teacher was there to support and assist them, albeit in a different way.

According to Nikolaeva (2012, p.59), the following reasons make the implementation of project-based methodology difficult:

1. Lack of clear definition of project typology and functions in educational process.
2. Insufficient preliminary preparation for using projects as learning methods and tools.
3. Wrongly defined driving question problem.
4. Poor time and process management.
5. Inadequate evaluation methods and procedures.

The researcher sees that the most serious problems she faced while implementing project-based learning strategy were that some students did not use the target language for communication, but their mother tongue instead. She dealt with this problem by giving modeling, simplifying the language they should use and encouraging them to use English. In addition, although clear roles for group members were assigned, some students dominated the work, while others did little work. Another problem was the large number of students inside the classroom, which affected the opportunity of all these students to participate, but the researcher overcame this problem by dividing the class into small groups and assigning a role for each group member.

2.2.11. Steps of project-based learning:

Because project work follows an unpredictable path based on the interests of particular children, a flexible framework to support teachers should be developed. This framework makes the inquiry more manageable. A project has typical phases, although no two projects are alike, there is a beginning, middle, and end (Hallermann, et al., 2011, p.5).

There are six (6) steps to Project-based Learning regarding to Bin Harun (2006, p.22)

Step 1: Start with the essential question

The question that will launch a project-based Learning lesson must be one that will engage students. It is greater than the task at hand. It is open-ended. It will pose a problem or a situation that the students can tackle knowing that there is no one answer or solution.

Step 2: Design a plan for the project

When designing the project, it is essential to select content standards to be addressed. Involve students in the planning process. Students feel ownership of the project when they have an active role in deciding activities. Based on the curriculum, select activities that support the question. Know what materials and resources to be made accessible to students. Be prepared to delve deeper into new topics and issues as students become more involved in pursuit of answers.

Step 3: Create a schedule

Design a timeline for project components. Realize that changes to the schedule will happen. Be flexible, but help students realize that a time will come when they need to finalize their thoughts, findings, and evaluations. Allow students to go in new directions. Guide them when they appear to be going in a direction that has no connection to the project. Help students to stay on course but do not accidentally set limitations.

Step 4: Monitor students and project progress

Facilitate the process and inculcate love for learning. Teach students how to work collaboratively. Designate fluid roles for group members. Let students choose their primary roles but assume responsibility and interactivity for other group roles. Provide resources, guidance and assess the process through creating team rubrics and project rubrics.

Step 5: Assess the outcome

Assessment provides diagnostic feedback and helps educators set standards. It allows one to evaluate progress and to relate that progress to others. It gives

students feedback on how well they understand the information and what they need to improve on. Assessment also helps teachers design instruction to teach more effectively. Whenever possible, allow self-assessment among students.

Step 6: Evaluate the experience

In the busy schedule of a school day, there is often little time for reflection. Yet, reflection is a very important part of the learning process. Set a time for reflection of daily activities. Allow individual reflection, such as journaling, as well as group reflection and discussion. Share feelings and experiences, and discuss what worked well and what needs change. Share ideas that will lead to new questions, thus new projects.

The following general stages can be used for successful project implementation. They constitute a practical guide for the sequencing of project activities for teachers who want to implement projects in their classrooms (Kriwas, 1999 as cited in Fragoulis (2009, p.117) :

Stage 1: Speculation

This stage includes choice of project topic. Topic is chosen after a dialogue among all members of the group and the teacher

Stage 2: Designing the project activities

This stage includes formation of groups and assigning of roles, decisions concerning methodology, sources of information, activities that will take place, and places outside the classroom that students will visit.

Stage 3: Conducting the project activities

At this stage the groups implement the activities designed in the previous stage. Students gather information and categorize it. The final products are displayed in the school or the wider community.

Stage 4: Evaluation

Evaluation refers to the assessment of the activities by participants and discussion about whether the initial aims and goals have been achieved.

Chiung-Sui Chang et al., (2011, p.266) point that successfully completing a PBL project requires that students perform the following steps:

1. Define problems and tasks.
2. Develop a strategy.
3. Collect information from pertinent literature.
4. Investigate a given situation and implement the proposed project.
5. Provide feedback and revise the proposed project.
6. Present the project in written and/or oral form.
7. Reflect upon the project findings and evaluate the work.

It is clear from the previous steps of project-based learning that they all are similar in the basic phases, but they may differ in the detailed steps regarding their point of view toward the project in addition to the category they deal with.

The researcher adopted the steps of Chiung-Sui Chang et al., (2011, p.266) while building the teacher guide regarding the three projects and the lesson plans to illustrate the detailed steps of implementing the project-based learning strategy.

2.2.12. How to implement project-based learning strategy in elementary schools?

Bin Harun (2006, p.18) states that in implementing PBL, its fundamentals are fourfold:

- Create teams of three or more students to work on an in-depth project for three to eight weeks.
- Introduce a complex entry question that establishes a student's need to know, and scaffold the project with activities and new information that deepens the work.
- Calendar the project through plans, drafts, timely benchmarks, and finally the team's presentation to an outside panel of experts drawn from parents and the community.

- Provide timely assessments and/or feedback on the projects for content, oral and written communication, teamwork, critical thinking, and other important skills.

According to IEL (2015), projects are like good stories. They have three parts: a beginning, middle, and end. Here's a summary of the three phases of project work.

Phase 1—Getting Started

- Children choose what to investigate, with some guidance from the teacher.
- The children discuss what they already know about the topic. The teacher helps children record their ideas.
- With help from the teacher, the children list questions that they want to answer during their study.
- Children talk about what answers they might find to their questions. The teacher lists their predictions.

Phase 2—Collecting Information about the Topic

- The teacher helps the children plan trips to places where they can do fieldwork and helps them find people to interview who can answer their questions.
- With adult help, the children use books and computers to find information.
- During class meetings, children report what they find in their fieldwork. The teacher encourages them to ask questions and make comments about each other's findings.
- The children might make drawings, take pictures, write words and labels, create graphs of things they measured and counted, and construct models. As they learn more, they can revise what they have made.

Phase 3—Concluding the Project

- Children discuss the evidence they have found that helps them answer their questions. The teacher helps them compare what they have learned with what they knew before the project began.

- Children decide how to show what they did and what they found out to parents and peers who were not there.
- Children create displays to share the story of the project with others. Displays might include their drawings, notes, stories, taped conversations, photographs, models, graphs, and videotapes. Children can also act out what they have learned.
- The children might invite parents and other guests to a presentation about their project. The teacher can help the young investigators decide how to tell the story of what they did and what they found out.

2.3 Leadership skills

This part deals with components of leadership skills such as the definition, characteristics, importance and benefits, challenges, the leadership skills for children in elementary schools.

Leadership is a popular topic today. The public is fascinated by who leaders are and what leaders do. People want to know what accounts for good leadership and how to become good leaders (Northouse, 2012, p.ix).

Leadership has been studied for centuries as Kretman (2009) points. Early theorists believed that few became leaders because leaders were born with specific innate leadership skills and qualities. It was believed there was one kind of leader but theorists now understand there are many dimensions of leadership. Furthermore, leadership in the twenty-first century has become broader and more complex with new expectations about the democratic process (Kretman, 2009). A leader is not necessarily a person who holds some formal position or is perceived as a leader by others. Instead, a leader is one who is able to affect change which helps others, the community and society. Any individual is a potential leader (Astin & Astin, 1996, p.16).

2.3.1. What is leadership?

You cannot manage and lead others well unless and until you can manage yourself, both rationally and emotionally (Kennedy, 2015, p.6). Northouse

(2012,p.9) points that scholars who study leadership have struggled with this question for many decades. Through the years, writers have defined leadership in a multitude of ways. It is a complex, multidimensional process that is often conceptualized in a variety of ways by different people. Northouse (2012, p.6) defines leadership as “a process whereby an individual influences a group of individuals to achieve a common goal. In addition, Adair (2002, p.61) agrees with this concept of leadership as it is the activity of influencing people to pursue a certain course. Western (2013, p.36) contextualizes leadership as it is not solely the property of individuals or groups, nor a set of competencies or skills, it more accurately described as a psychosocial influencing dynamic. Hooper and Potter (1997, p.6) also consider leadership as creating positive feelings on the part of the followers and emphasizing inspiration instead of control. Gill (2012, p.101) also defines leadership to accomplish useful and desirable things that benefit the people being led.

After searching and deep reading, the researcher concludes the following definition of leadership: “the skills that children should have which enable them to influence others in order to achieve common goals. They include “project planning; communication skills, problem solving, decision making, self-confidence, presentation skills, time management, team work, personal effectiveness skills, initiation, and opportunities for responsibilities.” They are improved by the PBL strategy and are measured by the students’ marks in the leadership observation card”.

2.3.2. Approaches to leadership:

There are many approaches to leadership. Not unlike fashion, approaches to leadership have evolved, changed and built upon one another. The following brief historical view as stated in Northouse (2012, p.2-6) can be helpful to understand this evolution.

Leadership is a trait: it focused on identifying the innate qualities and characteristics possessed by great social, political, and military leaders. It also emphasizes the leader’s special gifts. It follows the often expressed belief “leaders

are born, not made.” Some argue that it also may be possible to modify or change some traits.

Leadership is an ability: while the term ability frequently refers to a natural capacity, ability can be acquired. It means that some people have the natural ability to lead, while others develop their leadership abilities through hard work and practice.

Leadership is a skill: skilled leaders are competent. They know what they need to do, and they know how to do it. Viewed as a skill, leadership can be studied and learned. If a person is capable of learning from experience, he can acquire leadership. This view assures and goes with the aim of this study as it aims to investigate the impact of project-based learning on improving the leadership skills.

Leadership is a behavior: it is what leaders do when they are in a leadership role. Unlike traits and abilities, leadership behaviors are observable. This view encouraged the researcher to use the observation card as a tool to measure the leadership skills among students.

Leadership is a relationship: it is centered on the communication between leaders and followers rather than on the unique qualities of the leaders. A leader affects and is affected by followers, and both leader and followers are affected by the situation that surrounds them.

Leadership is an influence process: it means that it is not a trait or an ability that resides in the leader, but rather an interactive event that occurs between the leader and the followers. Leaders direct their energies toward influencing individuals to achieve something together. This perspective is emphasized by the researcher using project-based learning strategy.

2.3.3. Children leadership

Mincemoyer (2012, p.1) points that there has been debate among scholars about whether children learn to be leaders from their experiences or if leadership is something a person is born with. Satralkar (2006, p.1) explains that whoever said "Great leaders are made not born" was on the right track. Taking the initiative, making suggestions, providing direction, being sympathetic to the problems of

others are all characteristics that can make great leaders. Fortunately, they are also behaviors that can be encouraged in our children. Dulwich College Suzhou (2010, p.1) assures that we all have the skills, capability and capacity to lead, be it ourselves, others, small teams, the school, our families, friends and the community. There are many ways to help children develop these innate leadership skills. Thus, the role of parents and educators is critical in assisting with the development of leadership attributes, qualities and skills in children right from an early age. Good leadership skills and qualities are more easily cultivated if children are exposed to these traits daily in their lives and in their thinking. If we want children to grow up as great leaders, we need to show them - from a young age - what great leadership looks like.

Stoll and Temperley (2009, p.21) emphasize the importance of developing leadership skills small children and young people in schools around the world should be encouraged to see things from different perspectives since they will graduate to face a very different future from previous generations. By talking about feelings and ideas, young children will begin to understand themselves and how their actions affect others; teachers should develop short age appropriate scenarios that require young students to make ethical decisions or consider someone else's point of view (Bisland 2004, p.26). Moreover, by ignoring the needs of students in leadership at a young age, it is possible that they will not develop the skills necessary to reach their full potential as leaders. Hess (2010, p.8) also assures that the child who is given the opportunity to apply, practice, and enforce these leadership skills in many settings and situations will experience stronger personal growth and development.

Student leadership enhancement involves giving students opportunities to practice a range of leadership skills in a supportive, learning and social environment where "successes" and "errors" are processed and reviewed (Bisland, 2004). It is contended that leadership can be systematically developed so that students are more proficient in: project planning; communication skills, problem solving, decision making, self-confidence, presentation skills, time management, team work, personal effectiveness skills, initiation, and opportunities for responsibilities.

There is no one way to provide leadership skills development opportunities. Training programs must draw on research about effective leadership learning and include an appropriate balance of theoretical and practical knowledge and self-study. Many countries use group work, networks, coaching and mentoring to engage learners in managing their learning and ground their knowledge and skill development in real contexts (Stoll & Temperley, 2009, p.21). Bisland (2004) argues that student leadership can be embedded within the school curriculum. Often when teachers consider facilitating students' leadership development the focus is more on experiential learning and extra-curriculum activities, for example outward bound programs, school plays, or membership of sporting teams. While experiential learning has a history of fostering leadership, teachers may underestimate the importance of embedding student leadership development into their regular lessons. Students should be able to acquire leadership skills and knowledge through activities that complement their existing curriculum and they should be given opportunities to practice leadership skills that are integrated within the regular curriculum and so not require a separate student leadership curriculum.

2.3.4. Leadership traits identified in Children

Many children possessing giftedness in leadership share common characteristics, including the desire to be challenged, the ability to solve problems creatively, the ability to reason critically, the ability to see new relationships, flexibility in thought and action, understanding of ambiguous concepts, and the ability to motivate others (Bisland, 2004, p.25).

Karnes and Bean pointed (as cited in Satralkar, 2006, p.2) identified leadership characteristics in children as follows:

- The desire to be challenged.
- The ability to solve problems creatively.
- The ability to reason critically.
- The ability to see new relationships.
- Facility of verbal expression.
- Flexibility in thought and action.

- The ability to tolerate ambiguity.
- The ability to motivate others.

Dulwich College Suzhou (2010, p.1) has identified some characteristics of good leadership in a child.

- Sees – and shows – the way forward, especially during setbacks
- Reflects on, and uses, own experience to guide others
- Projects a clear vision based on thoughtful planning
- Communicates big ideas simply
- Has a sense of commitment to, and responsibility for, other people
- Displays integrity and shows humility when wrong: true to own values
- Celebrates the accomplishments of others
- Has the capacity to learn, share knowledge and change
- Uses their imagination to motivate others: helps people to see problems differently
- Understands leadership is not control – gives others the chance to show their talents to get things done
- Motivates people to want to work together – does not coerce, divide or undermine

2.3.5. Leadership skills

We may think it is very easy to identify the leader in any group – the one always out in front, the one in charge, the loudest, the bossiest, and so on. No one is a born leader; everyone can develop leadership skills. Even though skills play an essential role in the leadership process; they have received little attention by researchers. Leadership trait rather than leadership skills have been the focus of research for more than 100 years. However, in the past 10 years a shift has occurred, and leadership skills are now receiving far more attention by researchers (Northouse, 2012, p.85).

There are many different leadership skill classifications. Northouse (2012, p.86) grouped the leadership skills into three categories: administrative, interpersonal and conceptual skills as follows:

Administrative skills are about organizing work; they are divided into three specific sets of skills: (1) managing people, (2) managing resources, and (3) showing technical competence. **Interpersonal skills** are about dealing effectively with people; they are also divided into three parts: (1) being socially perceptive, (2) showing emotional intelligence, and (3) managing interpersonal conflicts. **Conceptual skills** are about working with concepts and ideas. They can be divided into three parts: (1) problem solving, (2) strategic planning, and (3) creating vision.

The five most important leadership skills leaders should have, according to the survey respondents, include:

- Communication
- Planning
- Knowing and using the resources of the group
- Understanding the needs and characteristics of the post
- Controlling group performance (Xiong, 2008, p.34).

Leadership skills according to Hess (2010, p.12) are:

- critical and creative problem solving
- decision-making
- risk-taking
- communication
- social action
- Collaborative work.

However, Ryan (2010, p.2) believes the leadership gap can be closed by focusing on these five areas: Teamwork and collaboration

- innovation and creativity

- communication
- learning agility/growth
- mindset
- Judgment.

Satralkar (2006, p.2) mentions six more top leadership skills for kids:

- Communication
- Collaborate/ Teamwork
- Negotiation/Compromising
- Planning/Strategic
- Vision
- Persistence/Determination.

Dulwich College Suzhou (2010, p.1) has identified some key skills of good leadership that children need support with:

- communication skills
- organizational skills
- problem- solving skills
- decision- making skills
- confidence
- collaborative skills
- Opportunities for responsibility.

The researcher mostly agreed with Dulwich College Suzhou (2010) and chose the most common leadership skills which are suitable for kids as well as to the project steps to use them in the observation card as a tool in this study and they are as follows:

- Planning: The student ability to prepare for what he or she will do concerning the coming project such as goal setting, material preparation and identification of steps
- communication skills: Using effective written, verbal, and nonverbal skills to convey the message to others and to exchange opinion and feelings
- problem solving: The student's ability to suggest and create several solutions for problematic situations
- decision making: The student's ability to see things from different perspectives and to make ethical decisions or consider someone else's point of view
- self-confidence: Discovery of personal interests and heroes who they can look up to for inspiration and motivation
- presentation skills: The student's ability to present and show his/her project (title, goals, importance, procedures and results) systemically and logically using graphs, pictures, organograms and concept maps
- time management: The student's ability to manage and organize his/her time during his/her work on the project activities and tasks
- Team work: good leaders learn from others and are willing to be led. They also know how to get things done without being bossy and alienating others
- personal effectiveness skills: The student's ability to affect others either by motivating them to do a certain behavior or by persuading them to think in a different way
- initiation: The student's ability to do things by him/herself without other's demand and his/her ability of action making rather than command waiting
- opportunities for responsibilities: The student's ability to act and behave well when offering him/her opportunity to have responsibilities and experiences in many different roles in clubs, on school trips, in presentations and debates and around the home

2.3.6. Leadership in education

Leadership education continues to be a concern in gifted education. However, it remains an abstract concept that is often ignored in school curricula (Bisland, 2004, p.24). Some individuals practice leadership naturally before they are aware of its elements, while others require development of their own self-confidence and skills before they can become effective leaders. The teacher's and educator's role in new curriculum is suggested to develop in every student an awareness of his or her own leadership potential; to assist young people in developing essential leadership skills that enable them to act responsibly in all aspects of their lives; to develop citizens who possess the leadership abilities to meet present and future challenges in a global society; and to provide students with opportunities to learn and practice essential leadership skills within a learning community (Schroder, et al., 2001, p.1).

Several strategies strengthen and broaden educational experiences for youth. Instructional units on leadership development should be provided at each grade level. The only sure way to develop kids as leaders is to give them real leadership responsibilities. Since leadership is learned over time through involvement with others, group participation offers unique opportunities for young people to belong, support others, and learn a variety of leadership styles. Students learn how to encourage others, create group spirit, and resolve conflict. They begin to understand diverse attitudes, skills, and talents and how to interact effectively with a diversity of people while working toward a common goal (Satralkar, 2006, p.6).

Students in groups can plan special projects or a leadership plan by setting goals, objectives, and timelines toward a mission of improving some area of the school or community. Skills such as seeking all available information, defining a group task, and devising a workable plan may be developed through any community project. No matter how small or large the goal, the process involved in devising and implementing the plan develops leadership potential. Mincemoyer (2012, p.1) assures this idea and says: "It is not as important what type of activities children participate in, as it is to find leadership and activities that children will enjoy and will benefit from."

The school can integrate these themes and skills successfully at appropriate developmental levels across the curriculum, thereby providing a better coordinated range of tools with which students can understand who they are and how they can become more involved and effective members of society. Leadership education can support, teach, and train young students to be leaders on all levels to face some of the world's most threatening problems (Hess, 2010, p.9). Many districts do not equate leadership education with traditional academic education, and teachers often do not receive proper training in leadership skill development. Consequently, students are given limited opportunities to develop their potential. Teachers should have access to workshops and leadership resources such as books, videos, software, and children's biographies to assist in planning for leadership education. Parent education is also an important aspect of leadership education. By working together, parents and teachers can provide an environment and numerous educational experiences for early childhood gifted children to begin on the path to successful leadership (Bisland, 2004, p.27).

The researcher believes that leadership is an important trend which should be focused on during the teaching process in addition to the curriculum designing process. The researcher thinks that our students need to be trained on like these leadership skills, they also deserve this interest as they are the future leaders. The school is the best place for children to practice these skills inside and outside the classroom where there are many opportunities to act as leaders with the encouragement of their teachers.

Tips for teachers and school staff to promote youth leadership

Carter, et al. (2009, p.7) suggest the following tips for teachers to promote students leadership:

- Look for strategies that can allow students to succeed in the classroom in order to feel the achievement and confidence.
- Go to professional development workshops and get training on how to promote youth leadership at your school.
- Teach self-advocacy skills. Incorporate this into the classroom early on.

- Give youth opportunities to lead and facilitate a classroom game or activity.
- Provide the support that is needed in the classroom but also ensures that youth have opportunities to socialize and interact with peers through collaboration on assignments or during free time.

Section II Literature Review

This part deals with previous studies which are divided into three domains:

- Studies related to the effectiveness of using project based learning in teaching.
- Studies related to learning and teaching vocabulary.
- Studies related to enhancing leadership skills.

First: Studies related to the effectiveness of using project-based learning in teaching.

Branch (2015)

Branch's (2015) study aimed at determining the effects of project-based learning with the support of technology on student achievement in mathematics when used as instructional approach rather than a traditional instructional approach with integrated technology. The research examined the differences in student achievement in mathematics between two charter schools in Chicago. It also examined teacher perceptions about project-based learning and/or technology as an instructional approach to improve learning and student achievement outcomes. The results revealed that there were statistically significant differences in student achievement between schools that used project-based learning as an instructional approach and schools that used a traditional instructional approach.

Creghan & Adair-Creghan (2015)

Creghan and Adair-Creghan's (2015) quantitative study aimed at examining the effects of a project-based learning (PBL) environment on economically disadvantaged high school students in regard to their attendance rates. Data were collected in order to compare attendance rates of a school utilizing traditional

teaching methodologies with a school using PBL as the main mode for instructional delivery. Findings suggested that when considering attendance rates, there was substantial evidence to support the use of PBL as making a positive impact on the school attendance of economically disadvantaged students. The study findings also lent positive support for teachers and administrators who were seeking to implement a PBL environment in their school systems to assist in addressing the attendance needs of this student population.

Koparan & Güven (2014)

Koparan and Güven's (2014) study examined the effect of project based learning on 8th grade students' statistical literacy levels. A performance test was developed for this aim. The quasi-experimental research model was used in this study. In this context, the statistics were taught for four weeks with traditional method in the control group and with project based learning in the intervention group. The performance test was applied to total 70 students as pre and post-test. Participants were from two different classes of a middle school in Trabzon. The data were analyzed using Rasch (1980) measurement techniques. This measurement allowed both students' performance and item difficulties to be measured using the same metric and placed on the same scale. All raw scores converted linear score in order to obtain equal interval scale. Acquired linear scores were compared. In the analysis of gained datum covariance analysis were used. According to gained results in pre-processing application there was no substantial difference between the achievements of intervention group and control group; but after processing between the achievements of intervention group and control group there was a substantially statistical difference in favor of the intervention group. The results of the study revealed that the project based learning increased students' statistical literacy levels in the intervention group.

Al-Jamal (2014)

Al-Jamal's (2014) study shed light on the key features to address while planning for EFL (English as a Foreign Language) tasks, especially projects. A clear path was drawn for both instructors and students to understand the basics of planning, executing, and presenting a project that enables further student

engagement and —ultimately—sustained learning. By incorporating the most recent teaching methods into brain research to present meaningful experiences, a clear framework determines the necessary roles for both teachers and students to ensure full ownership when equipped with basic tools. These tools aid teachers in monitoring and assessing students' progress and process. Furthermore, it focuses students' attention on their observation of projects and highlights the effect of the project on their character and language acquisition, creating a community of autonomous learners.

Nassir (2014)

Nassir's (2014) study aimed to investigate the effectiveness of project-based learning strategy on developing ninth graders' achievement level in English and their attitudes towards it. To answer the study questions, the researcher adopted the experimental approach. The researcher purposively chose (76) ninth graders. The participants were distributed into two equivalent groups, each of which consisted of (38) students. Project-based learning strategy was used in teaching the experimental group, while the traditional method was used with the control one during the first term of the school year (2013-2014). The tools included a pre-post achievement test, an attitude scale (with pre & post applications) to determine the students' attitudes towards English Language and to investigate students' opinions of the project-based learning strategy as a new strategy in learning English skills and sub skills, and a speaking evaluation card (with pre & post applications).

The results of the study revealed that there were statistically significant differences in the mean scores of the pre-posttest, speaking evaluation card and the attitude scale in the post application in favor of the experimental group. Such findings were attributed to the use of the project-based learning strategy in teaching the four skills of English language: listening, reading, writing and speaking. Taking into account this large impact that the findings showed, the researcher recommended the use of project-based learning strategy to develop English language different skills and areas. Moreover, she recommended the use of the same strategy to develop other school subjects. She also suggested that

further research should be conducted on the effect of other project-based learning strategies on other dimensions of learning other school subjects and different grades.

Turkmen(2013)

Turkmen's (2013) study aimed at examining the effect of project-based learning activities on the fifth grade children's science achievement and their attitudes towards the science course for the unit on 'Sound', and to compare the effectiveness of project-based learning over the more traditional teaching methods. The study was carried out with 44 fifth grade students at a public primary school in the Northwestern part of Turkey, during the spring term of the 2011-2012 academic year. Students were randomly divided into two groups as control group (CG, n=22) and experimental group (EG, n=22). Initially, pre-tests (an achievement test and an attitude scale) were applied to both the CG and EG. During the four weeks, the EG was taught using the project-based practices, while the CG was taught using more traditional teaching practices. Children in the EG carried out three science projects for the science unit on 'sound': Bite and hear, making music with glass bottles, and designing a house with sound insulation. Then, the post-tests were carried out in order to determine the effect of a project-based learning approach on children's learning. The research findings revealed that children's science achievement significantly improved with the project-based activities, but their attitudes toward science did not change.

Bagheri, et al. (2013)

Bagheri, et al.'s (2013) study aimed at examining the effects of project-based learning (PBL) strategy on students' self-directed learning skills in a system-based education course offered in the educational technology department of Arak University in Iran. In order to achieve this end, a sample of 78 students in the field of educational technology who enrolled in the System-based education course was selected. Subjects were randomly assigned to one of the two groups: the experimental group (PBL strategy) and control group (conventional teaching strategy). The self-directed learning readiness scale (SDLRS) was administrated three times (i.e. pretest, post-test one, and post-test two). The results of two-way repeated measure ANOVA tests revealed that students who were taught using PBL

strategy performed significantly better in terms of self-directed learning skills than did students who were taught using CT strategy.

Doğan, et al. (2012)

Doğan, et al.'s (2012) study aimed at determining teachers' views on the practice of project-based learning approach in primary-school science education. The population of the study included 170 teachers working in the city of Elazığ during the academic year of 2011–2012, and the sample of the study includes 94 teachers, 50 of whom are male and 44 are female. In this research, survey method has been used. As a data collection instrument, “Developing the Implementation Difficulties Scale for the Project Based Learning” developed by Pektas, Çelik and Köse (2009) has been used. It was understood from the teachers' views concerning the project based learning that there was not enough time for applying the Project based learning in the curriculum and the students were not able to use this approach effectively. According to these research findings, it can be suggested that students should be helped to use the Project based approach and teachers should use the approach more frequently.

Erdem (2012)

Erdem's (2012) research aimed at examining the changes in attitudes towards chemistry and the test anxiety of teacher candidates in project based learning applications. The study was conducted in the fall semester of the 2009-2010 academic years. The study was comprised of 29 students who were in the 4th class of chemistry teaching. The one-group pretest-posttest was implemented in this study in which a project based learning (PBL) approach was applied. A scale of attitude towards chemistry and test anxiety was devised for the purposes of this study. The scales were applied to the study group before and after the implementation. Non-parametric Wilcoxon signed-rank test for paired samples was used to examine whether there was a change in the averages of the pretest and posttest scores of students. Correlation analysis was applied for the relation between the final academic success grade and test anxiety and attitude. At the end of the research, the anxiety levels of the teacher candidates were found to be decreased. However, no significant effect of PBL was found on the attitudes and test anxiety of students and no

significant difference was found between the attitude and anxiety scores of the students and academic success.

Nikolaeva (2012)

Nikolaeva's (2012) examined the effectiveness of different project-based strategies and practices for the learning and teaching implemented in both formal and non-formal educational environment. The research methodology integrated methods and tools for parallel study of both social and educational areas of the project-based teaching-learning interaction: surveys, comparative questionnaires, focus groups, case study and experimental teacher training. The collected data showed that school projects were a welcoming and enjoyable experience for both students and teachers. They appreciated significant advantages of the approach, as compared to traditional methods and strategies. At the same time, they identified specific risks and challenges that can negatively affect their achievements, communication, satisfaction, or academic and social effectiveness. Probably, the most significant conclusion from the research is that the skills and competences for project based teaching and learning can be effectively developed by both formal teacher training programs and project-based practices (internships). On the basis of the performed experimental teacher training program (its results have been already implemented in the bachelor program for Pedagogy students at Sofia University), improvements were made to several project-based strategies and techniques. Specific conclusions and recommendations have been formulated regarding the possibilities to improve teacher competences and excellence through participation in school / learning projects, development and management.

Bas (2011)

Bas's (2011) study purpose was to investigate the effects of project-based learning on students' academic achievement and attitudes towards English lesson of 9th grade students. The research was carried out in 2010–2011 school year in a high school in Nigde, Turkey. Totally 60 students in two different classes in the 9th grade of this school participated in the study. The pre- and post-test control group research model was used in this study. The results of the research showed a significant

difference between the attitude scores of the experiment group and the control group. On the other hand, it was also found out that project-based learning was more effective in the positive development of the students' academic achievement levels. At the end of the research, it was revealed that the students who were educated by project-based learning were more successful and had higher attitude levels towards the lesson than the students who were educated by the instruction based on student textbooks.

Eskrootchi & Oskrochi (2010)

Eskrootchi, and Oskrochi's (2010) study purpose was to investigate the effectiveness of project based learning in a technology-rich environment. A science project, Land-use in Watershed, that takes advantage of Internet facilities was developed and integrated with a simulation software package, Structural Thinking and Experiential Learning Laboratory, with Animation, (STELLA) developed to promote deeper understanding of Land-use by students. The Participants in the study were 72 students in a quasi-experimental research design. Statistical analyses showed that students who participated in the manipulation of the experimental model of the watershed experiment and the STELLA simulation performed best on understanding the watershed concept.

Yalcain et al. (2009)

Yalcain et al.'s (2009) study aimed at investigating the effect of project based learning on the first year science undergraduates' attitudes towards physics, electricity achievement, and development of scientific process skills. In these quasi-experimental nonequivalent groups pretest-posttest design study, the sample consisted of total of 90 first year science undergraduates (prospective teachers) enrolled in the Science Teacher Training Department in Bayburt Education Faculty in 2006–2007 academic year in Turkey. The electricity title was taught through project based learning in the experimental group, while traditional teacher-centered instruction was followed in the control group throughout the second semester. The data was collected through three different tests; Electricity Achievement Test, Attitude towards Physics Test and Scientific Process Skills Test. The tests were administered to the experimental and the control group students at the beginning and

end of the course as pretest and posttest. In addition, to explore further the in-class atmosphere of the experimental group, the observation notes taken by the researcher through ten weeks and the semi-structured interviews of 30-40 min conducted with the purposely selected five students from experimental group. The statistical analysis of the gathered data showed that there were statistically significant differences between the experimental and control group with respect to students' attitude toward physics, electricity achievement and scientific process skills. Furthermore, it was found from the qualitative data that the experimental results support the idea that the project based learning enhanced the students' learning and helped their attitudes towards physics and research skills to improve.

Foss, et al. (2006)

Foss et al.'s (2006) paper examined the effectiveness of the project-based teaching approach in a short-term intensive English program for Japanese university EFL students. Four distinct projects are described and evaluated, and the benefits and limitations of the four projects are given. The paper shows that project-based instruction was a viable and flexible alternative to traditional intensive English coursework.

Shafaei et al. (n.d.)

Shafaei, et al.'s (n.d.) paper reports on a study that examined the use of Project-Based Learning (PBL) in increasing students' vocabulary knowledge. The study was conducted in some private institutes for some Iranian junior high school students. After applying the approach and conducting the post-test, significant differences were observed. This approach can be used as a training tool to help acquire vocabulary. The Project-Based Learning (PBL) approach in education often generates justifiable enthusiasm among those who have become frustrated with the limitations of traditional lecture-based education. In recent years, it has been widely acknowledged that classes designed by utilizing Project-Based Learning (PBL) are effective in enhancing the problem-solving ability of students. In PBL-based classes, students worked in groups and tried to apply their knowledge to solve the problems by themselves; therefore, such classes were effective in improving students' vocabulary knowledge and communication abilities.

Nurnia (n.d.)

Nurnia's (n.d.) study aimed at investigating the use of Project -Based Learning (PBL) in promoting students' vocabulary improvement which is shown from the number of words students acquire during the implementation of PBL. The study was conducted with the English Department freshmen students taking a vocabulary course during the second semester in their first year at university. A total of 33 students were participating to learn and acquire words in a context they themselves provided through a creative product which they produced in groups and through which assigned words could be easily learnt or acquired. The study shows an increase in the number of words or vocabulary size being, on average, 883 and 532 words respectively for receptive and productive vocabulary. Even, the students individually could add more words up to 1,435 and 1,296 words for both types. This improvement is found to be much higher compared with the one found in another previous study.

Commentary

It is obvious that nearly all the previous studies examined the effectiveness of project-based learning strategy on the teaching-learning process as they were applied to all ages and for all levels. Moreover, there was emphasis in all these studies that (PBL) strategy has a great effect on other different life skills, which concurs well with the aim of this study.

Second: Studies related to learning and teaching vocabulary

Al Farra (2014)

Al Farra's (2014) study aimed at investigating the effectiveness of using Smart Boards in developing tenth graders' vocabulary achievement, retention and attitudes towards English. To achieve the study aims, the researcher adopted the experimental approach with two groups' pre-posttest design (experimental and control). To collect data, the researcher prepared these tools: 1) An achievement test (pre, post & delayed) 2) An attitude scale (pre & post) to determine the students' attitudes towards English language 3) A teacher's guide using the Smart Board.

After the validity and reliability of the tools were examined, the tools were implemented on the study sample represented in (85) male students from Khalid El-Hassan School who were randomly selected from the original population of (1743) students in West Khanyounis Directorate of Education in the school year 2013-2014.

After the data had been analyzed, the study revealed that there were significant differences at ($\alpha = 0.05$) in the scores of the control and the experimental groups in favor of the experimental group on the vocabulary post-test which was attributed to the effectiveness of the Smart Board. The findings also pointed out that there were statistically significant differences at ($\alpha = 0.01$) in the students' post attitudes towards English before and after implementing the Smart Board in favor of the experimental group. Additionally, there were statistically significant differences at ($\alpha = 0.01$) in the students' achievement level of the control and the experimental groups (in the retention test) in favor of the experimental group. It also showed that there were no significant differences in the mean scores between the post-test and delayed (retention) test of the experimental group.

Based upon the previous findings, the study recommended that teachers use the Smart Board in teaching English, and training courses and workshops for teachers in general and for teachers of English in particular on employing the Smart Board be held to enrich the teaching-learning process and develop students' achievement level. It also suggested that further research should be conducted on the effect of interactive Whiteboards (IWB) on other English language skills, school subjects, students' creative thinking skills as well as in the treatment of learning difficulties in English.

Makni (2014)

Makni's (2014) study purpose is to compare the efficiency of two methods for teaching polysemous vocabulary – the image-schema-based vocabulary instruction method (ISBM) and the translation-based vocabulary instruction method (TBM). While ISBM is inspired by cognitive linguistics, and represents a new trend in teaching polysemous vocabulary, TBM embodies a traditional and well

established way of teaching polysemous vocabulary in EFL contexts. The subjects of this study, 40 pre-university Arab students studying in an intensive English program, were placed in two groups and were taught a range of metaphorical meanings of polysemous words, in accordance with the cognitive linguistics ISBM and the mainstream TBM. In order to assess the pedagogical value of both methods, a polysemous word knowledge test (PWKT) was used as a pre and post-test. The results of the immediate post PWKT suggest that the ISBM is more effective in teaching and learning polysemous vocabulary in this setting than the TBM. As far as the contribution to field of vocabulary acquisition is concerned, this study attempts to shed light on the teaching of polysemous words in an Arab context (a so far an unmapped territory) in that it tries to show how polysemous words have been treated in the English syllabi directed to UAE learners, to equip English teachers with feasible ways to teach polysemous words more efficiently, and thereby to improve the learners' ability to comprehend the polysemization mechanism more easily.

Lwankovitsch (2013)

Lwankovitsch's (2013) study tries to explore the strategies that best increase vocabulary development through the research of studies focusing on English language learners, various models of vocabulary instruction, specific content area vocabulary instruction, and the use of technology to enhance current practices. Additionally, background is provided about the important connections between vocabulary development and reading comprehension. The studies reveal practical advice for instruction, planning, and implementation of vocabulary strategies that fit within current classroom practices. Commonalities found within each focus area include the use of visuals models, repeated exposure to selected words, instruction in word learning strategies, and student creation of definitions.

Wafi (2013)

Wafi's (2013) study aimed at investigating the effectiveness of using animated pictures program in learning English vocabulary among the fifth graders in Gaza. The target domains were productive and receptive . To answer the questions of the study, the researcher adopted the quasi experimental approach.

The sample of the study consisted of (64) students distributed into two groups. One of the groups represented the control group of (32) students, and the other represented the experimental one of (32) students. The groups were randomly chosen from a purposive sample from Haifa primary school for girls. The animated pictures program was used in teaching the experimental group while the traditional method was used with the control one in the second term of the school year (2012-2013). An achievement vocabulary test was designed and validated to be used as a pre and posttest in acquiring vocabulary in the English language for the fifth graders. The data of the study were analyzed using t-test independent sample, which was used to determine significant differences between the groups. Effect size technique was used to measure the effect size of the animated pictures program on the experimental group in each domain of the test.

The results indicated that there were statistically significant differences between both groups in favor of the experimental one in receptive vocabulary, productive vocabulary and the total score due to the animated pictures program. Effect size technique indicated a large effect of the animated pictures program in improving receptive vocabulary, productive vocabulary and the total score for the experimental group. This result reflects the effectiveness of using animated pictures program in developing vocabulary. Based on those findings, the study recommended the necessity of implementing the animated pictures program in teaching English vocabulary to bring about better outcomes in students' achievements of English language. It was also suggested that further research should be conducted on the effect of the animated pictures program on different dimensions of learning English language and other school subjects.

Al-Faleet (2013)

Al-Faleet's (2013) study aimed at investigating the effectiveness of using puzzles in developing tenth graders vocabulary achievement. It also examined the long-term effect of the puzzles on the retention of the vocabulary. Furthermore, it measured the effect of the puzzles on the students' attitudes towards English. The researcher purposively chose 80 tenth graders from Abdul Kareem Al Aklook Secondary School for Boys in Dair Al Balah for the experiment and randomly chose

two classes from the tenth grade classes. The sample of the study was 80 students, (40) students in each one. They were equally divided into two groups, experimental and control. Both groups were pre-tested to assure that they both were equivalent. Educational Puzzles were used in teaching the experimental group, while the traditional method was used with the control one in the second term of the school year (2012-2013). The experiment lasted for six weeks. After two weeks, a delayed test was administrated to the experimental group to measure retention. The researcher prepared these tools: an achievement test (Pre, Post & delayed); an attitude scale (pre & post) to determine the students' attitudes towards English language and teacher guide (puzzles).

The results of the study revealed that there were significant differences in the mean scores of the vocabulary test in favor of the experimental group in the post application. They also showed that there were no significant differences in the mean scores between the posttest and delayed test of the experimental group. The results also indicated that there were significant differences in the mean scores of the post attitude scale in favor of the experimental group. In the light of those findings, the study recommended the necessity of implementing puzzles in teaching English language to make better outcomes in students' achievement, retention and attitudes towards English.

Giridharan (2013)

Giridharan's (2013) explorative study investigated the role of (Automated Response System) ARS keypad technology as a pedagogical tool in the second language classroom for L2 vocabulary recognition tasks, and examined whether the technology could be used to utilize a higher level of interaction in the classroom and permit vocabulary comprehension to be assessed in real-time. The study, which lasted for 14 weeks, employed a mixed-method approach to obtain the relevant data required for the analysis and interpretation of the phenomenon being studied. The groups comprised a total of forty students, both male and female.

The initial results from the study illustrated that the knowledge gains, through the use of ARS-keypad technology, came firstly from the almost instantaneous feedback from learners to the instructor that facilitated development of

relevant vocabulary learning tasks. The use of emerging technologies like ARS - keypad in the classroom allows for veering away from traditional teaching paths and learning practices and encourages a more integrated and participative engagement of learners.

Yahia & Sinatra (2013)

Yahia and Sinatra's (2013) paper presents some important considerations in word instruction and learning for the English Language Learner (ELL). Specific strategies and techniques are provided for English as a Second Language (ESL) and English as a Foreign Language (EFL) teachers to assist others to apply in home and classroom situations. The two broad areas of direct, sequential instruction and incidental learning of vocabulary through contextual experiences are discussed and word list sources are presented of high utility English words. The key throughout instruction is for the ESL/EFL teacher to be word-conscious or word mindful of the power of vocabulary to enrich thinking and understanding. Vocabulary knowledge has been identified as one of the best predictors of reading comprehension and fluency while facilitating the learning of a second language (L2). Specific techniques such as the use of concept maps, word webs, and word sorts are presented to help students learn content-specific, academic vocabulary.

Baniabdelrahman (2013)

Baniabdelrahman's (2013) study investigated the effect of using integrating online tools - games, Youtube and digital storytelling, which are embedded in a wiki, on students' vocabulary learning in EFL classroom. The participants of this study consisted of two ninth grade male students' classroom sections and two female classroom sections of the same grade (70 male, and 70 female students) in Irbid City in Jordan. One male and one female ninth grade classroom sections were assigned to be the experimental group and the other two sections (one male and one female) to represent the control group. Performance results on the post-test revealed that the experimental group showed better improvement in their vocabulary achievement in comparison with the improvement of the control group

regardless of their gender. The study recommended examining the effect of using these online tools on students' achievement in the other language skills, sub-skills and language components.

Albakri (2013)

Albakri's (2013) study investigates a method for teaching the vocabulary of biology using English to Arab learners who study English as a foreign language at a private school in Sharjah. To achieve the purpose of the study a literature review of the main theories related to content and language integrated learning (CLIL) was conducted. Then, data samples were collected from 30 female students of grade 12 who were nearly advanced learners of English and had studied biology for about three years but in Arabic. The qualitative instruments used to collect data include observations by school supervisors, students' works, and interviews with some of the students who were involved in the study. The results of data analysis proved the positive outcomes of the study which were represented by promoting students to understand English scientific texts, answering questions of comprehension, pronouncing the words of the lesson correctly and reading aloud parts of the texts easily.

Fageeh (2013)

Fageeh's (2013) study purpose was to explore the benefits of mobile phone applications with regard to their potential for improving vocabulary learning and motivation. Following a pre-test/post-test design, 27 experimental students and 31 control students participated in this study by using mobile device-based vocabulary applications three times a week over the course of one semester. The results indicated statistically significant differences in performance of the experimental group. A motivation scale was employed to measure the motivation of the participants in both groups at post-test. The results indicated that experimental participants had enhanced motivation perceptions compared to the control participants. While further research is needed, the analysis of data indicated that the

use of mobile phones is a viable vocabulary instructional/learning method at the college level.

Aghlara & Tamjid (2011)

Aghlara and Tamjid's (2011) study investigated the effect of using a digital computer game and its role on promoting Iranian children's vocabulary learning. In the experimental group, the SHAIEx digital game was used whereas in the control group English vocabulary was taught through traditional methods. At the end of the teaching period, the participants' performances were compared. The results indicated that the mean scores of the children in the experimental group were significantly higher than those in the control group, indicating the positive effect of using digital games in teaching English vocabulary to children.

Meriem (2010)

Meriem's (2010) study aims at evaluating the importance of the introduction of spelling as a vocabulary strategy for students in the teaching of English as a foreign language at university, and how this can be a beneficial tool as input for the acquisition of new vocabulary, and then a helpful means to produce correct writing. To attain such an aim, the researcher administered a pre-test and a post-test. The former was intended to determine the pre-instructional knowledge of the graphic form of words, whereas the latter was aimed at finding out whether the spelling strategy implemented during instruction was effective in enhancing the subjects' ability to write with less spelling mistakes. The test was interposed by two sequential lessons. The results of this innovative investigation have confirmed the hypothesis which states that if we train students to pay a careful attention to the form of words, this would help them to spell them and write correctly. The learners under investigation proved to have learnt most of the vocabulary items of the proposed text.

Commentary

The researcher recognized clearly from the previous studies the lack of literature on leadership education in the elementary grades, so there is a need for leadership skills to be searched and taught in elementary classrooms via different

strategies and programs. The researcher got benefits from these previous studies to build the observation card of the leadership skills.

Third: Studies related to enhancing leadership skills.

Al Bunienm & Al Jasem (2015)

Al Bunienm & Al Jasem's (2015) study aimed at investigating the effectiveness of the enrichment program in the development of creative leadership skills of talented students enrolled in the program of mental superiority and talent in the primary stage of the Kingdom of Bahrain. The study sample consisted of (60) sixth gifted students, and then the experimental and the control groups were formed equally at random. Creative Leadership Skills scale was utilized after assessing the validity and reliability indices. The results were as follows: there were statistically significant differences in creative leadership skills in favor of experimental group.

Faa, K. (2015)

Faa, K.'s (2015) study investigated the current existence of student leadership programs offered at the elementary level and identified supports that can be present in order for an elementary leadership development and training program to be established. A mixed-methods research design was conducted involving BC provincial elementary administrators as well as elementary teachers in School District 69 (Qualicum). Four themes emerged in this study reflecting supports needed for the facilitation of elementary student leadership: (1) vision/culture, (2) administrative supports, (3) 21st century learning, and (4) communication. The findings of this study assert that when administration and teachers support student leadership development through an alignment in vision to include involvement of partnership groups and administrative supports, elementary student leadership programs can be sustainable. This research contributes to the field by providing insights into the supports that can be considered in the facilitation of elementary student leadership programs.

Abu Naim (2014)

Abu Naim's (2014) study aimed at discovering the Effectiveness of a Training Program Based on the Humanistic Theory to improve self-actualization skills and its impact on developing leadership behavior and future thinking skills among female sixth graders. The study sample consisted of two sections from (sixth grade) (22 students) for each selected randomly from Al-Ittihad School in the year (2014-2015). One of the sections was selected randomly as experimental and the other as controlled. Two instruments were used for : leadership behavior, and future thinking after calculating validity and reliability. The researcher applied the instruments on both groups (controlled and experimental), and then a 127 training program was applied on the experimental group. A posttest was then applied on both groups. Pre and post mean scores of the two groups were calculated to check the effectiveness of the program. The researcher used Multicovariance-Analysis (MANCOVA) to investigate the impact of the training program. This study shows that there were significant statistical differences ($\alpha \leq 0.05$) in the total degree for the leadership behavior and all fields except: making decisions and taking initiatives. This study shows that there were significant statistical differences ($\alpha \leq 0.05$) in the total degree for future thinking. The researcher recommended training students of different ages on the skills of self-actualization to develop leadership behavior and future thinking.

Al-kremen (2013)

Al-kremen's (2013) study aimed at recognizing the level of the academic leader possession for the skills of leadership behavior from the staff member perspectives in Tafila Technical University. To achieve the goals, the researcher constructed a questionnaire that consisted of (41) items distributed into five domains for the skills of leadership behavior (Decision Making, Systematic Humanitarian Leadership, Labor interest, Dealing with behavioral variables, and Assessment). The questionnaire was distributed to the sample (146 instructors). The results of the study showed that the level of the academic leaders' possession of the skills of leadership behavior was medium. Also, the result of the study indicates statistically significant differences at the level of academic leaders for the skills of leadership behavior in

Tafila Technical University with regard to variables of gender and specialization. Whereas no statistically significant differences were noticed with regard to experience variable or to any interaction to those variables. The researcher recommends that training programs should be held in the area of skills of leadership behavior for academic leaders including deans of faculties and chair persons.

Sanzo, et al. (2011) This study is irrelevant. You delete it.

Sanzo et al.'s (2011) study aims at examining the leadership best practices of school principals as they lead in an accountability- and standards-driven school environment. The lack of research and necessity to find successful practices to improve student achievement highlight the need for this study.

Design/methodology/approach – An inductive exploratory study was designed to provide insight into how successful middle school principals facilitate high levels of student achievement. Findings – Common themes of practices enabling the principals to serve effectively in their schools emerged from the conversations and were grouped in the following categories: sharing leadership; facilitating professional development; leading with an instructional orientation; and acting openly and honestly.

Originality/value – This research contributes to the field by providing insights into the practices of leaders of successful schools in a high-stakes testing environment. The study provides a framework on which leaders should model their own practices, as well as informing leadership preparation programs areas around which to focus their instructional content.

Hess (2010)

Hess's (2010) study purpose is to assess the need to educate young students about leadership in the elementary curriculum. The research presents a leadership education curriculum design, which can serve to guide teachers to teach these skills in the elementary school classroom. The researcher examines the following questions: What leadership skills are appropriate for elementary students and how

can elementary school teachers foster leadership skills? The most effective way to promote these skills to elementary school students is by providing ample exposure and practice in the classroom. This project illuminates the fact that leadership skills are desperately needed in the elementary classroom because students are not being prepared with the tools needed in the twenty-first century.

Emira (2010)

Emira's (2010) study firstly examined how Egyptian teachers and senior teachers (formal leaders) define leadership and whether the length of their teaching experience has an effect on their views and secondly explored their perspectives on the relationship between teacher leadership and decision making. The research sample was a mixed group of 20 Egyptian teachers of English language; three of them were senior teachers. The length of their teaching experience varied from 2 to 13 years. The findings showed that the group defined teacher leadership in terms of characteristics of leaders; styles of leadership and what teacher leaders do both inside and outside classroom. Almost all of them saw a link between leadership and decision making. In general, the length of experience did not seem to have a major impact on their views. This is a key finding because it raised questions about the Ministry of Education's (MoE) selection of teachers for leadership responsibilities, which was based on the length of their teaching experience. The implications of these findings were examined in relation to the proposal of the MoE for decentralizing education in Egypt.

Jacobson (2008) Your study focuses on leadership among students. Do you think that studies related to teachers' and principals' leadership relevant??

Jacobson's (2008) article examines the practices of principals who have successfully improved student performance in challenging, high poverty elementary schools. The work begins with a brief overview of past research into school leadership in challenging contexts, followed by a description of the core practices Leithwood and Riehl (2005) argue are necessary, but insufficient, for student success in any context. These essential practices: setting direction, developing people and redesigning the organisation, provide a framework for understanding the work of leaders in

successful high poverty schools. Next, case study findings from three, high poverty, elementary schools in the U.S. are reported. These findings are then compared briefly with findings from similar schools in Australia and England drawn from the International Successful Principalship Project (ISSPP). In aggregate, the findings suggest that while differences in national policies and traditions may influence how the essential core practices are enacted, principals in challenging elementary schools used similar strategies to improve student performance, specifically, creating safe learning environments and engaging greater community involvement. Passion, persistence and commitment to improving the life chances of impoverished youngsters were traits common to all the successful principals studied. The article concludes with a few caveats related to the small size of this study's sample and then suggestions are offered for future research on successful leaders in high poverty schools.

Gosling & Western (2004)

Gosling and Western's (2004) paper follows research and development work undertaken at Lancaster University Management school on how leaders learn from difference, learn from each other and learn from practice through a training program called Lead2lead (www.lead2lead.net). This programme takes leaders through a 'leadership exchange' where they receive leadership coaching, training in observation skills, and then partner up and shadow each other before being debriefed and coached to deepen the learning from this experience. This paper is both an update on our progress and concludes with a critique of the notion of 'leadership development'. This research highlights the difficulties in developing leaders to get beyond a technocrat or measurable, reductionist way of thinking and engaging. Drawing on psychoanalytic and existential theory this paper offers some insights into this paradox.

Commentary

The researcher recognized clearly from the previous studies the lack of literature on leadership education in the elementary grades, so there is a need for leadership skills to be searched and taught in elementary classrooms via different strategies and

programs. The researcher got benefits from these previous studies to build the observation card of the leadership skills.

General commentary of the previous studies

- **The purposes of the studies and their findings:**

All the previous studies related to the first domain agreed on the effectiveness of using project-based learning strategy in improving English skills and in the teaching and learning process in general as they were applied to all ages and all levels. In addition, the majority of the studies pointed to the positive effect of project-based learning strategy on general life skills such as Koparan and Güven's (2014) study, which revealed that the project based learning increased students' statistical literacy levels, Al-Jamal's (2014) paper, which shed light on PBL effect on students' character and on creating a community of autonomous learners. Bagheri, et al.'s (2013) study revealed the effect of PBL on self-directed learning skills. Eskrootchi and Oskrochi's (2010) study showed that students of the experimental model of the STELLA simulation performed better on understanding the watershed concept. Yalcain et al.'s (2009) study showed the effect of PBL on student's attitudes towards physics.

On the other hand, concerning the learning achievement in English and other subjects, many studies have pointed to the positive effect of PBL such as Nassir's (2014) study, which revealed the great effect of PBL on students' achievement in all English skills. Turkmen's (2013) study examined the effect of project-based learning activities on the fifth grade children's science achievement and proved its effectiveness. Bas's (2011) study showed the effects of project-based learning on ninth graders' academic achievement and attitudes towards English lessons. Foss, et al.'s (2006) paper showed that project-based instruction is a viable and flexible alternative to traditional intensive English coursework. Shafaei, et al.'s (n.d.) study examined the use of PBL in increasing students' vocabulary knowledge. Finally, Nurnia's (n.d.) study aimed at investigating the use of PBL in promoting students'

vocabulary improvement and proved its great effect. The current study agreed with the aims and findings of majority of these studies

- **Population and Sample**

Concerning the participants of the studies, the previous studies were applied to all ages. Some of them were conducted on university students either concerning the PBL variable or the vocabulary variable such as those of Bagheri, et al.'s (2013) study, Erdem's (2012) study, Yalcain et al.'s (2009) study, Foss, et al.'s (2006) study, Fageeh's (2013) study and Meriem's (2010) study. Other studies were conducted in Junior schools such as those of Branch (2015), Creggan and Adair Creggan (2015), Koparan and Güven (2014), Nassir (2014), Baniabdelrahman (2013) and Bas (2011). Moreover, some other studies were applied in elementary schools such as those of Fragoulis (2009), Aghlara and Tamjid (2011). The sample of the current study was the youngest which was third graders.

- **Place**

The pre-mentioned studies were conducted in various environments. The studies of Yalcain, et al. (2009), Turkman Kacici (2013) and Bas (2011) were applied in Turkey, while those of Bagheri, et al. (2013) and Giridharan (2013) were applied in Malaysia. The studies of Yahya and Sinatra (2013) and Mergendollar and Thomas (2000) were conducted in the U.S. Baniabdelrahman (2013) and Abu Naim (2014) studies were applied in Jordan. Al Neyadi, Albakri (2013) and Makini (2014) studies were applied in U.A.E. Meriem (2010) and Boudersa and Hamada (2015) studies were applied in Algeria. Nikolaeva (2012) study was applied in Bulgaria, Fageeh (2013) study was applied in the Kingdom of Saudi Arabian, AlBunienm and Al Jasem (2015) study was applied in the Kingdom of Al Bahrain and Emira (2010) study was applied in Egypt. Aghlara and Tamjid (2011) study was applied in Iran, Branch (2015) study was applied in Chicago, USA, Fragoulis (2009) study was applied in Greece and Foss, et al. (2006) study was applied in Japan. The current

study was applied in Palestine like that of Nassir (2014), but it differed in the dependent variable and also in the population and the sample of the study.

- **Methodology**

Concerning the methodology implemented, most of the previous studies used the experimental approach like those of Nassir (2014), Turkman Kacici (2013), Bas (2011), Bagheri, et al. (2013), Yalcain et al. (2009), Eskrootchi, and Oskrochi (2010), Al Farra (2014), Wafi (2013) and Al Faleet (2013), while other studies adopted the descriptive approach. The current study adopted the experimental approach.

- **Instruments**

Different instrumentation were used in the above-mentioned previous studies. The most commonly used tools to conduct those studies included pre-posttest, survey questionnaires, interviews and observations. The current study used pre-post vocabulary test and an observation card of the leadership skills.

Chapter 3
METHODOLOGY

Chapter 3

The Methodology

Introduction

This chapter contains the procedures followed throughout the study. It introduces a complete description of the methodology of the study in terms of the population, the sample, the instrumentation, the pilot study, a description of using concept mapping in the study and the research design. Moreover, it introduces the statistical treatment of the study findings.

3.1 Research design:

The study adopted the experimental approach which requires two groups of students: an experimental group and a control one. The Project-Based Learning Strategy was used in teaching vocabulary to the experimental group, while the traditional method was used with the control group. The experiment lasted for six weeks, from 30/10/2015 to 14/11/2015. Both groups were taught by the researcher.

3.2 Study population

The population of the study consisted of all third graders at UNRWA schools in Gaza enrolled in the first semester of the school year (2015 – 2016).

3.3 Study sample

The sample of the study consisted of (76) students distributed into two groups: the experimental group consisting of (38) students and the control group consisting of (38) students also. The sample of the study was purposively chosen from Al Zaitun Elem Co-ed “C” School in the east of Gaza, where the researcher works as a teacher of English. The sample was randomly chosen from the third grade classes. Table (3.1) shows the distribution of the sample.

Table (3.1): The distribution of the sample to the study two groups

Group	Experimental	Control	Total
No. of the sample	38	38	76

Both groups were all in grade three and equivalent in their general achievement as revealed in the statistical treatment of their results in the second term of the school year (2014-2015). This is because classes were originally distributed according to their results by the school administration beforehand. The age of the sample members was also controlled before the experiment application. A pre-test was used to check the equivalence of achievement of the two groups.

3.4 Study variables

The study included the following variables:

- An independent variable which was the PBL strategy.
- The first dependent variable which was the vocabulary achievement.
- The second dependent variable which was the students' leadership skills.

3.5 Study instrumentation

To achieve the aims of the study, the researcher used the following tools:

- 1- A vocabulary achievement test (pre and post-test).
- 2- An observation card for leadership skills.

3.5.1 Vocabulary achievement test

The achievement test was prepared by the researcher herself to measure the subjects' vocabulary achievement. It was used as a pretest applied before the experiment and as a posttest applied after the experiment (See Appendix 1).

3.5.1.1. General aim of the test

The test aimed at measuring the impact of Project-Based Learning Strategy on 3rd graders' English vocabulary and their leadership skills. It was built according to the criteria of test specifications. It was used as a pretest to prove that both groups were similar in terms of vocabulary achievement and as a posttest to identify the differences in the achievement of both groups.

3.5.1.2. Table of specifications

The test specifications, outlined in Table (3.2) below were designed according to the general objectives of the content, the content analysis and the percentage weight of each skill and the objectives of the test. The third grade

syllabus consists of (9) units each consisting of (6) periods. The test items for each skill accorded with the general objectives of the skill and its nature. The test consisted of (28) varied items as presented in Table (3.2) below. These skills were equally represented in the test specification and therefore their items in the test.

Table (3.2): Table of specifications

skills	No. of items	Marks	%
Word recognition	4	4	14.2%
Word and picture association	4	4	14.2%
Missing letter completion	5	5	17.8%
Missing word completion	4	4	14.2%
Writing the word correctly	5	5	17.8
Word classification	6	6	21.4%
Total	28	28	100%

3.5.1.3 The items of the test

The items of the test were distributed into six questions as follows:

1. Circle the word you hear

This question included 4 rows of words and the students had to recognize the word they hear and then to circle it. One mark was given to each word.

2. Write the word below its picture

This question included 4 pictures and 4 words. The students had to associate words with pictures. One mark was given to each word.

3. Complete the missing letter

This question included 5 words and every word had a missing letter. The students had to complete the correct missing letter of each word getting help from the pictures. One mark was given to each missing letter.

4. Complete the sentences with the correct word

This question included 4 sentences with four spaces. The students had to choose the correct word to complete the sentences getting help from the pictures. One mark was given to each missing letter.

5. Write the word correctly

This question included 5 pictures with 5 jumbled letters. The students had to rearrange the letters and write them correctly. One mark was given to each missing letter.

6. Classify the words

This question included 6 words and the students had to classify them into animals and colors and then to write them correctly in the table. One mark was given to each missing letter.

3.5.1.4 The pilot study

The test was applied on a random sample of (40) students from Al Zaitun Elem Co-ed “C” School in the east of Gaza. The results were recorded and statistically analyzed to measure the test validity and reliability. The items of the test were modified in the light of the statistical results .The researcher used the following equation to calculate the test time.

$$\text{Test Time} = \frac{\text{The time needed for the 1}^{\text{st}} \text{ student} + \text{The time needed for the last student}}{2}$$
$$= 35 + 55 \div 2 = 45 \text{ Minutes}$$

After applying the equation on the pilot study results, the researcher found that the time needed for the test to be applied was 45 minutes.

3.5.1.5 Test validity:

Al Agha (1996, p.118) states that a valid test is the test that measures what it is designed to measure. The study used the referee validity and the internal consistency validity.

(A) The referee validity

The test was introduced to a jury of specialists in English language and methodology in Gaza universities and experienced supervisors and teachers in UNRWA schools and the Palestinian Ministry of Education. The items of the test were modified according to the jury's recommendations (See Appendix 3).

(B) The internal consistency validity

Al Agha (1996, p.121) writes that the internal consistency validity indicates the correlation of the score of each item with the total score of the test. It also indicates the correlation of the average of each domain with the total average. This validity was calculated by using Pearson Formula, whose results are outlined in Table (3.3) below

Table (3.3): Correlation coefficient of the achievement test items

Domains	Items	Pearson correlation	Domains	Items	Pearson correlation
Word recognition	1	0.805**	Missing word completion	14	0.662**
	2	0.708**		15	0.725**
	3	0.685**		16	0.757**
	4	0.794**		17	0.755**
Word and picture association	5	0.783**	Writing the word correctly	18	0.771**
	6	0.776**		19	0.631**
	7	0.745**		20	0.485**
	8	0.674**		21	0.514**
Missing letter completion	9	0.675**	Word classification	22	0.625**
	10	0.608**		23	0.373*
	11	0.804**		24	0.631**
	12	0.724**		25	0.455**
	13	0.552**		26	0.573**
			27	0.539**	
			28	0.380*	

r table value at df (38) and sig. level (0.05) = 0.304

r table value at df (38) and sig. level (0.01) = 0.393

As seen in Table (3.3) the coefficient correlation of each item score with the total score of the achievement test was significant at levels (0.01) and (0.05). Accordingly, it can be concluded that the test was highly consistent and valid as a tool for the study.

As seen in table (3.4) the coefficient correlation of each skill with the total degree of the achievement test was significant at level (0.01). Accordingly, it can be concluded that the test is highly consistent and valid as a tool for the study.

Table (3.4): Correlation coefficient of each skill within the total degree of the test

skills	Pearson correlation	Sig. level
Word recognition	0.698	sig. at 0.01
Word and picture association	0.668	sig. at 0.01
Missing letter completion	0.852	sig. at 0.01
Missing word completion	0.729	sig. at 0.01
Writing the word correctly	0.840	sig. at 0.01
Word classification	0.739	sig. at 0.01

r table value at df (38) and sig. level (0.05) = 0.304

r table value at df (38) and sig. level (0.01) = 0.393

3.5.1.6 Test Reliability

The test is reliable when it gives the same results if it is reapplied in the same conditions (Al-Agha, 1996, p.120). The reliability of the test was measured by Kud-Richardson (K-R21) and the Spilt- half techniques.

(A) Split half:

The reliability of the test was measured by calculating the correlation between the even and odd items of the test. The results of this correlation are outlined in Table (3.5) below.

Table (3.5): Reliability coefficient by Spilt –half Technique

skills	TOTAL	Correlation coefficient	Reliability
Word recognition	4	0.577	0.732
Word and picture association	4	0.586	0.739
Missing letter completion	*5	0.735	0.753
Missing word completion	4	0.547	0.707
Writing the word correctly	*5	0.546	0.596
Word classification	6	0.914	0.955

TOTAL	28	0.765	0.867
--------------	----	-------	-------

As clearly shown in Table (3.5), the spilt-half coefficient was (0.867), which indicates that the achievement test was reliable to be applied in the study.

(B) Kud-Richardson (K-21)

K-R21 test depends on calculating the percentages of correct answers to the test items and also on the variance of every item. Table (3.6) describes (K-R21) for the test domains.

Table (3.6): (K_R21) Coefficients for the test

skills	TOTAL	(K_R21) coefficient
Word recognition	4	0.735
Word and picture association	4	0.732
Missing letter completion	5	0.731
Missing word completion	4	0.700
Writing the word correctly	5	0.572
Word classification	6	0.652
TOTAL	28	0.889

According to Table (3.6), the test proved to be reliable. Richardson (K-R21) coefficient is (0.889).

3.5.1.7 Difficulty Coefficient:

The difficulty coefficient is calculated by dividing the number of students who get a wrong answer by the total number of the students taking the test. The equation is as follows:

$$\text{Difficulty Coefficient} = \frac{\text{No. of wrong answer}}{\text{The total no. students}}$$

Table (3.7) shows the difficulty coefficient for each item of the test:

Table (3.7): Difficulty coefficient for each items of the test

No.	Difficulty coefficient	No.	Difficulty coefficient
1	0.64	15	0.45
2	0.45	16	0.50
3	0.64	17	0.64
4	0.68	18	0.55
5	0.45	19	0.27
6	0.64	20	0.32
7	0.59	21	0.36
8	0.59	22	0.27
9	0.64	23	0.50
10	0.59	24	0.68
11	0.59	25	0.68
12	0.55	26	0.50
13	0.68	27	0.64
14	0.64	28	0.77
Total difficulty coefficient		0.55	

Table (3.7) shows that the difficulty coefficient wobbled between (0.27 – 0.77) with a total average (0.55), which means that each item was acceptable or in the normal limit of difficulty according to the viewpoint of assessment and evaluation specialists.

3.5.1.8 Discrimination coefficient:

Discrimination coefficient refers to the test ability to differentiate between the high achievers and the low achievers.

$$\text{Discrimination Coefficient} = \frac{\text{No. of high achievers with correct answers}}{\text{No. of high achievers}} - \frac{\text{No. of low achievers with correct answers}}{\text{No. of low achievers}}$$

Table (3.8) shows the discrimination coefficient for each item of the test:

Table (3.8): Discrimination coefficient for each test item

No.	Discrimination coefficient	No.	Discrimination coefficient
1	0.73	15	0.55
2	0.55	16	0.45
3	0.55	17	0.73
4	0.64	18	0.73
5	0.55	19	0.36
6	0.55	20	0.27
7	0.64	21	0.73
8	0.45	22	0.36
9	0.73	23	0.64
10	0.45	24	0.45
11	0.64	25	0.45
12	0.73	26	0.64
13	0.64	27	0.36
14	0.73	28	0.45
Total discrimination coefficient			0.56

Table (3.8) shows that the discrimination coefficient wobbled between (0.27 – 0.73) with a total average (0.56), which means each item was acceptable or in the normal limit of discrimination according to the viewpoint of assessment and evaluation specialists.

3.5.2 Observation card:

An observation card was prepared by the researcher to measure the impact of project-based learning strategy on the leadership skills among the third graders. This observation card was used before and after the experiment for both the experimental and control groups. It was composed of eleventh domains, involving thirty seven items (See Appendix 2).

3.5.2.1. The aim of the observation card:

The observation card aimed at measuring the students' leadership skills before and after the experiment for both the control and experimental groups.

3.5.2.2. Steps of constructing the observation card:

1. The researcher listed the most common leadership skills according to related studies.
2. The researcher constructed the items of observation card depending on reviewing literature related to leadership skills.
3. Specialists of education and psychology in general were consulted.
4. The observation card was refereed by university professors, specialists and experts.
5. The observation card was presented to the referee committee in order to measure:
 - The suitability of the items to be observed.
 - The suitability of the number of the items for the teacher to observe.
 - The language used in the card.
 - The extent to which each item of the card represented the intended domain.

3.5.2.3. Description of the observation card:

The observation card consisted of eleven domains. The items were constructed to measure students' leadership skills. The researcher took into consideration the following points:

- The sentences included one idea in order to express one specific skill.
- The items were measurable.
- The sentences were as short as possible.

The five-point Likert scale was used to measure teachers' observation. The levels of the scale responses varied from strongly disagree, disagree, not sure, agree to strongly agree. The items of the scale were translated into Arabic in order

to get other observers understand the items easily and accurately. The final version of the scale consisted of (37) sentences distributed into eleven domains as illustrated in Table (3.9) below.

Table (3.9): Observation card domains

Domain	No. of items
Planning skills	4
Communication skills	4
Problem solving skills	3
Decision making	3
Self-confidence	4
Presentation skills	3
Time management skills	3
Team work/ group work	3
Personal effectiveness skills	4
Initiation	3
Opportunities for responsibilities	3
TOTAL	37

3.5.2.4 The pilot study:

The observation card was applied on a random pilot sample of (5) third graders from Al Zaitun Elem Co-ed “C” School in the east of Gaza. It was applied in order to ensure the clarity of the observation card items and instructions. It was also applied to identify the observation card validity and reliability.

3.5.2.5 Validity of the observation card:

The observation card is valid when it measures what it is designed to measure. In order to measure the validity of the observation card, the researcher used the referee validity and the internal consistency validity.

(A) The referee validity:

The observation card was introduced to a jury of experienced supervisors and specialists in English language, methodology and psychology, university professors in Gaza universities, and Ministry of Education. The items of the observation card were modified according to their recommendations (See Appendix 3).

(B) Internal Consistency Validity

The internal consistency validity indicates the correlation of the score of each item with the total score of the domains. It also indicates the correlation of the average of each domain with the total average. This validity was calculated by using Pearson Formula. Table (3.10) shows the internal consistency of the observation card.

According to Table (3.10), the coefficient correlation of each item within its domain is significant at level (0.01). Table (3.11) shows the correlation coefficient of each domain with the whole observation card. According to the following tables, it can be concluded that the observation card was highly consistent and valid as a study tool.

Table (3.10): Pearson Correlation coefficient for every domain with the total degree of this observation card

Domains	Items	Pearson correlation	Domains	Items	Pearson correlation
Planning	1	0.969**	Presentation skills	19	0.966**
	2	0.980**		20	0.980**
	3	0.976**		21	0.977**
	4	0.966**	Time management	22	0.959**
Communication skills	5	0.935**		23	0.972**
	6	0.954**	24	0.969**	
	7	0.948**	Team work	25	0.956**
	8	0.914**		26	0.984**
Problem solving	9	0.956**		27	0.984**
	10	0.979**	Personal effectiveness skills	28	0.960**
	11	0.965**		29	0.976**
Decision making	12	0.970**		30	0.967**
	13	0.989**	31	0.973**	
	14	0.946**	Initiation	32	0.961**
15	0.958**	33		0.974**	

Self confidence	16	0.958**	Opportunity for responsibility	34	0.973**
	17	0.924**		35	0.977**
	18	0.936**		36	0.990**
		37		0.988**	

r table value at df (38) and sig. level (0.05) = 0.304

r table value at df (38) and sig. level (0.01) = 0.393

Table (3.11): Correlation coefficient of each domain of the observation card with the total

Domain	Pearson correlation	Sig. level
Planning	0.933	sig. at 0.01
Communication skills	0.965	sig. at 0.01
Problem solving skills	0.935	sig. at 0.01
Decision making	0.918	sig. at 0.01
Self confidence	0.921	sig. at 0.01
Presentation skills	0.950	sig. at 0.01
Time management skills	0.933	sig. at 0.01
Team work/group work	0.939	sig. at 0.01
Personal effectiveness skills	0.945	sig. at 0.01
Initiation	0.948	sig. at 0.01
Opportunity for responsibility	0.949	sig. at 0.01

r table value at df (38) and sig. level (0.05) = 0.304

r table value at df (38) and sig. level (0.01) = 0.393

3.5.2.6 Reliability of the observation card

The tool is reliable when it gives the same results if it is reapplied in the same conditions. The reliability of the observation card was measured by Alpha Cronbach, the Spilt-half technique and the coefficient inter-observer agreement.

(A) Coefficient of inter-observer agreement

To measure the reliability of the observation card, the researcher used the inter-observer agreement method (the researcher and another teacher) in the calculation of the reliability. Each observer was working independently of the other and they used the same scale to record the performance of students during the

observation period. In addition, the researcher and the other teacher ended their observations at the same time, which was at the end of time period determined to the total observation. Accordingly, the researcher and the other teacher observed five students' performance. The ratio of the agreement was calculated statistically by using Cooper equation whose results are outlined in Table (3.12) below.

$$\text{Coefficient agreement} = \frac{\text{Points of Agreement}}{\text{Points of Agreement} + \text{Points of Disagreement}}$$

Table (3.12): Percentage of inter-observer agreement to assess the reliability of the observation check-list

Group	Total performance	First observer	Second observer	Percentage
Student 1	185	133	124	93.23
Student 2	185	127	118	92.91
Student 3	185	115	106	92.17
Student 4	185	111	99	89.19
Student 5	185	121	115	95.04
Total Reliability of the Card				92.51

According to Table (3.12), the researcher found that the highest percentage of inter-rater agreement was (95.04), the lowest percentage of agreement was (89.19) and the total reliability was (92.51). Thus, these percentages indicated a high level of inter-observer reliability..

(B) Spilt –half Technique

According to tables (3.13) and (3.14), the observation card is proved to be reliable. Alpha Cronbach coefficient is (0.994) and the Spilt- half coefficient is (0.969).

Table (3.13): Alpha Cronbach Coefficients of the observation card domains

DOMAIN	TOTAL	Alpha Cronbach coefficient
Planning	4	0.981
Communication skills	4	0.947
Problem solving skills	3	0.961
Decision making	3	0.967
Self confidence	4	0.959
Presentation skills	3	0.973
Time management skills	3	0.964
Team work/group work	3	0.974
Personal effectiveness skills	4	0.977
Initiation	3	0.967
Opportunity for responsibility	3	0.985
Total	37	0.994

Table (3.14): Reliability coefficient by Spilt–half Technique

SCOPE	TOTAL	Coefficient correlation	reliability
Planning	4	0.937	0.967
Communication skills	4	0.900	0.947
Problem solving skills	3	0.829	0.965
Decision making	3	0.881	0.943
Self confidence	4	0.905	0.950
Presentation skills	3	0.879	0.976
Time management skills	3	0.877	0.966
Team work/ group work	3	0.881	0.984
Personal effectiveness skills	4	0.959	0.979
Initiation	3	0.851	0.973
Opportunity for responsibility	3	0.876	0.988

Total	37	0.968	0.969
--------------	----	-------	-------

3.6 Controlling the variables

To assure the accuracy of the results and avoid any marginal interference, the researcher tried to control some variables before the study.

3.6.1 English and General achievement variable:

T-test was used to measure the statistical differences between the groups due to their English and general achievement. The subjects' results in the second term test of the school year (2014-2015) were recorded and analyzed as shown in Table (3.15) below.

Table (3.15): T-test results of controlling English achievement variable

Domain	Group	N	Mean	Std. Deviation	t	Sig. value	sig. level
English achievement	experimental	38	19.868	10.429	0.160	0.874	not sig.
	control	38	20.237	9.685			

“t” table value at (74) d f. at ($\alpha \leq 0.05$) sig. level equal 2.00

“t” table value at (74) d f. at ($\alpha \leq 0.01$) sig. level equal 2.66

Table (3.15) shows that there were no statistical differences at ($\alpha \leq 0.05$) between the experimental and the control subjects due to the English achievement variable.

3.6.2 Previous learning variable

To make sure that the sample subjects were equivalent in their previous English language achievement, the researcher applied the pre-achievement test. The results of the subjects were recorded and statistically analyzed using T-test. The results of this analysis are outlined in Table (3.16) below.

Table (3.16): T-test results of controlling previous learning in English variable

Domain	Group	N	Mean	Std. Deviation	t	Sig. value	sig. level
Word recognition	experimental	38	2.368	1.364	0.161	0.872	not sig.
	control	38	2.421	1.482			
Word and picture association	experimental	38	1.289	1.250	1.051	0.297	not sig.
	control	38	1.605	1.366			
Missing letter completion	experimental	38	1.658	1.419	0.285	0.776	not sig.
	control	38	1.737	0.950			
Missing word completion	experimental	38	1.026	0.822	1.141	0.258	not sig.
	control	38	1.289	1.160			
Writing the word correctly	experimental	38	0.289	0.611	1.197	0.235	not sig.
	control	38	0.474	0.725			
Words classification	experimental	38	3.658	1.697	0.965	0.337	not sig.
	control	38	4.000	1.375			
Total degree	experimental	38	10.289	4.538	1.211	0.230	not sig.
	control	38	11.526	4.367			

“t” table value at (74) d f. at ($\alpha \leq 0.05$) sig. level equal 2.00

“t” table value at (74) d f. at ($\alpha \leq 0.01$) sig. level equal 2.66

Table (3.16) shows the mean and the standard deviation of each group in English previous learning. The analysis of the results indicated that there were no statistically significant differences between the experimental and the control groups at ($\alpha \leq 0.05$) level.

3.6.3. Equivalence between male and female students in the test

To calculate the equivalence between the male and female students in the experimental group, the researcher used the t-test Independent Sample Results, whose results are outlined in Table (3.17) below.

Table (3.17): T-test Independent Sample Results of differences between male and female in the experimental group in the vocabulary achievement test

Test		N	Mean	Std. Deviation	t	Sig. value	sig. level
Word recognition	male	16	2.313	1.493	0.213	0.833	not sig.
	female	22	2.409	1.297			
Word and picture association	male	16	1.313	1.352	0.096	0.924	not sig.
	female	22	1.273	1.202			
Missing letter completion	male	16	1.625	1.408	0.120	0.905	not sig.
	female	22	1.682	1.460			
Missing word completion	male	16	1.063	0.854	0.229	0.821	not sig.
	female	22	1.000	0.816			
Writing the word correctly	male	16	0.313	0.704	0.196	0.846	not sig.
	female	22	0.273	0.550			
Words classification	male	16	3.125	1.668	1.692	0.099	not sig.
	female	22	4.045	1.647			
Vocabulary skills	male	16	9.750	4.796	0.620	0.539	not sig.
	female	22	10.682	4.412			

“t” table value at (36) d f. at ($\alpha \leq 0.05$) sig. level equal 2.02

“t” table value at (36) d f. at ($\alpha \leq 0.01$) sig. level equal 2.70

The analysis of the results indicated that there were no statistically significant differences between the male and the female of the experimental group students at ($\alpha \leq 0.05$) level.

3.6.4. Controlling the previous leadership skills variable for observation card

To make sure that the sample subjects were equivalent in their previous leadership skills, the researcher applied the pre- observation card. The results of the subjects were recorded and statistically analyzed using T-test. Table (3.18) shows the mean and the standard deviation of each group in the previous leadership skills.

Table (3.18): T-test results of controlling previous leadership skills variable

Domain	Group	N	Mean	Std. Deviation	t	Sig. value	sig. level
Planning	experimental	38	11.316	3.662	0.398	0.692	not sig.
	control	38	11.737	5.401			
Communication skills	experimental	38	11.553	3.151	0.123	0.902	not sig.
	control	38	11.658	4.206			
Problem solving	experimental	38	7.605	2.955	0.253	0.801	not sig.
	control	38	7.421	3.382			
Decision making	experimental	38	7.263	2.544	0.291	0.772	not sig.
	control	38	7.079	2.954			
Self confidence	experimental	38	11.684	3.103	0.581	0.563	not sig.
	control	38	11.211	3.953			
Presentation skills	experimental	38	8.158	2.727	0.034	0.973	not sig.
	control	38	8.184	3.965			
Time management	experimental	38	8.526	2.128	0.081	0.936	not sig.
	control	38	8.474	3.391			
Team work / group work	experimental	38	9.395	2.636	0.076	0.940	not sig.
	control	38	9.342	3.387			
Personal effectiveness skills	experimental	38	10.289	2.710	0.256	0.798	not sig.
	control	38	10.526	5.007			
Initiation	experimental	38	8.579	2.213	0.224	0.823	not sig.
	control	38	8.421	3.732			
Opportunity for responsibility	experimental	38	8.737	2.901	0.495	0.622	not sig.
	control	38	8.395	3.115			
Total degree	experimental	38	103.105	23.625	0.092	0.927	not sig.
	control	38	102.447	36.994			

“t” table value at (74) d f. at (0.05) sig. level equal 2.00

“t” table value at (74) d f. at (0.01) sig. level equal 2.66

The analysis of the results indicated that there were no statistically significant differences between the experimental and the control groups at ($\alpha \leq 0.05$) level.

3.6.5 Equivalence between male and female students in the observation card

To calculate the equivalence between the male and female students in the experimental group in the observation card, the researcher used the t-test Independent Sample test, whose results are outlined in Table (3.19) below.

Table (3.19): T.test Independent Sample test of Differences between male and female students in the Experimental group in observation card

Skill	Gender	N	Mean	Std. Deviation	t	Sig. value	sig. level
Planning	male	16	11.375	3.384	0.084	0.934	not sig.
	female	22	11.273	3.930			
Communication skills	male	16	11.438	2.421	0.190	0.851	not sig.
	female	22	11.636	3.646			
Problem solving skills	male	16	7.875	3.324	0.475	0.638	not sig.
	female	22	7.409	2.720			
Decision making	male	16	7.250	2.955	0.027	0.979	not sig.
	female	22	7.273	2.272			
Self confidence	male	16	11.125	2.604	0.946	0.350	not sig.
	female	22	12.091	3.421			
Presentation skills	male	16	8.313	2.774	0.294	0.770	not sig.
	female	22	8.045	2.751			
Time management skills	male	16	8.938	1.769	1.016	0.316	not sig.
	female	22	8.227	2.349			
Team work / group work	male	16	9.625	2.446	0.454	0.652	not sig.
	female	22	9.227	2.810			
Personal effectiveness	male	16	10.500	1.789	0.404	0.689	not sig.
	female	22	10.136	3.256			
Initiation	male	16	8.625	2.094	0.108	0.915	not sig.
	female	22	8.545	2.345			
Opportunity for responsibility	male	16	8.875	2.705	0.247	0.806	not sig.
	female	22	8.636	3.094			
Leadership skills	male	16	103.938	17.819	0.183	0.856	not sig.
	female	22	102.500	27.490			

“t” table value at (36) d f. at (0.05) sig. level equal 2.02

“t” table value at (36) d f. at (0.01) sig. level equal 2.70

The analysis of the results indicates that there were no statistically significant differences between the male and the female students in the experimental group at ($\alpha \leq 0.05$) level.

3.7 Statistical Analysis Procedures

The researcher used a number of statistical techniques that were in tandem with the study nature; the data were collected and computed by using the Statistical Package for Social Sciences (SPSS) as follows:

- Spearman correlation: to determine the internal consistency validity of the test items and the evaluation criteria of the test.
- Alpha Cronbach technique: to measure the reliability of the observation card items.
- Split-half technique and Kud-Richardson (K-R21): to test the reliability of the test
- T. Test independent samples: to control the interferential variables and to measure the statistical differences in means between the two groups as regards the study variables.
- Effect size level by using T.value, Eta square, and Cohen's d: to check the effect size effect of the differences which the independent variable, the intervention, had on the dependent variable of the experimental group.
- Difficulty equation to identify the difficulty of the test items.
- Discrimination equation to identify the discrimination of the test items.

Summary

This chapter presented the procedures of designing and applying the instruments, the subjects and the statistical analysis that the researcher adopted in analyzing the results of the vocabulary pre- and posttest and pre, post observation card. The next chapter presents the data analysis and results of the study hypotheses.

Chapter 4

Data Analysis

Chapter 4

Data Analysis

Introduction

The purpose of the current study was to examine the impact of project-based learning strategy on 3rd graders' English vocabulary and their leadership skills. This chapter presents the research findings outlined in accordance with the research questions and hypotheses after the analysis of the findings by using Statistical Package for Social Sciences (SPSS). In her attempt to analyze the data, the researcher employed different statistical formulae such as frequencies, means, Std. Deviations and t-test. Furthermore, the researcher used effect size through (η^2) and d value to measure the extent to which the independent variable, project-based learning strategy, had an effect on the dependent variable, the experimental group's vocabulary achievement level in English and their leadership skills.

4.1 Answers to Research Questions

4.1.1 Answer to the first Research Question

The first question is stated as follows: **“What are the skills of leadership needed to be developed by PBL strategy?”** To answer this question, the researcher listed the most common leadership skills according to related studies. Specialists of education and psychology in general were consulted.

- **Planning:** The student's ability to prepare for what he or she will do concerning the coming project; such as goal setting, material preparation and identification of steps.
- **Communication skills:** Using effective written, verbal, and nonverbal skills to convey the message to others and to exchange opinions and feelings
- **Problem solving:** The student's ability to suggest and create several solutions for problematic situations.
- **Decision making:** The student's ability to see things from different perspectives and to make ethical decisions or consider someone else's point of view.
- **Self-confidence:** Discovery of personal interests and heroes who they can look up to for inspiration and motivation.

- **Presentation skills:** The student's ability to present and show his/her project (title, goals, importance, procedures and results) systemically and logically using graphs, pictures, organograms and concept maps.
- **Time management:** The student's ability to manage and organize his/her time during his/her work on the project activities and tasks.
- **Team work:** good leaders learn from others and are willing to be led. They also know how to get things done without being bossy and alienating others.
- **Personal effectiveness skills:** The student's ability to affect others either by motivating them to do a certain behavior or by persuading them to think in a different way.
- **Initiation:** The student's ability to do things by him/herself without the other's demand and his/her ability of action making rather than command waiting.
- **opportunities for responsibilities:** The student's ability to act and behave well when being offered the opportunity to have responsibilities and experiences in many different roles in clubs, on school trips, in presentations and debates and around the home.

4.1.2 Answer to the second Research Question

The second question inquired about the following “**Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary achievement in the posttest between the experimental group and control group?**” To answer this question, the researcher tested the following hypothesis: “There are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' achievement in vocabulary in the post test between the experimental group and control group. To examine this hypothesis, the means and standard deviation of both groups' results on the post-test were computed. Independent Samples T-test was used to measure the statistical significance of differences. Table (4.1) outlines the results.

Table (4.1): T.test Independent Sample Results of Differences between the Experimental and the Control Group in the vocabulary Posttest

Domain	GROUP	N	Mean	Std. Deviation	t	Sig. value	sig. level
Word recognition	experimental	38	3.658	0.534	3.816	0.000	sig. at 0.01
	control	38	2.737	1.389			
Word and picture association	experimental	38	3.500	1.033	4.705	0.000	sig. at 0.01
	control	38	2.079	1.549			
Missing letter completion	experimental	38	4.474	1.033	6.157	0.000	sig. at 0.01
	control	38	2.553	1.622			
Missing word completion	experimental	38	3.579	0.858	4.213	0.000	sig. at 0.01
	control	38	2.368	1.550			
Writing the word correctly	experimental	38	3.474	1.390	6.152	0.000	sig. at 0.01
	control	38	1.395	1.552			
Words classification	experimental	38	5.289	1.206	4.138	0.000	sig. at 0.01
	control	38	3.526	2.334			
Vocabulary skills	experimental	38	23.974	3.132	7.723	0.000	sig. at 0.01
	control	38	14.658	6.743			

“t” table value at (74) d f. at (0.05) sig. level equal 2.00

“t” table value at (74) d f. at (0.01) sig. level equal 2.66

As shown in table (4.1), the T. computed value which is 7.723 is larger than T. table value which is 2.00 in the test, which means that there are significant differences at ($\alpha \leq 0.05$) in the total mean score of the post-test between the experimental and control group in favor of the experimental one. The mean of the post-test in the experimental group reached (23.974), whereas the mean of the control group was (14.658). This result indicates that using project-based learning strategy was more effective than the traditional method in developing students' vocabulary. As a result, the null hypothesis is rejected in this study.

To calculate the size effect of this difference, the researcher used Eta square " η^2 " by using the following equation (Afana, 2000, p.42):

$$\eta^2 = \frac{t^2}{t^2 + df}$$

Also the researcher calculated "d" value by using the following equation:

$$d = \frac{2t}{df}$$

Table (4.2): The level of effect size (η^2) and (d)

Test	Effect size		
	Small	Medium	Large
η^2	0.01	0.6	0.14
d	0.2	0.5	0.8

Table (4.3): "t" value, eta square " η^2 ", and "d" for the total degree of the test

skill	T value	η^2	d	Effect size
Word recognition	3.816	0.164	0.887	Large
Word and picture association	4.705	0.230	1.094	Large
Missing letter completion	6.157	0.339	1.432	Large
Missing word completion	4.213	0.193	0.979	Large
Writing the word correctly	6.152	0.338	1.430	Large
Words classification	4.138	0.188	0.962	Large
Vocabulary skills	7.723	0.446	1.796	Large

The results of (η^2) and d values shown in Table (4.3) indicate the large effect size of the use of project-based learning strategy in the total degree of the vocabulary skills.

4.1.3 Answer to the third Research Question

The third question was formulated as follows: **Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary achievement in the experimental group between the pre- and posttest? To**

answer this question the researcher used the hypothesis which says that there are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary achievement in the experimental group between the pre and the posttest. To answer this hypothesis, the mean scores of the experimental group results of the pre- and post-tests were computed. T-test Paired Samples test, whose results are outlined in Table (4.4), was used to analyze the data statistically.

Table (4.4): T- Test Paired-Samples Differences between the Pre- and the Post-Test.

Skill	GROUP	N	Mean	Std. Deviation	t	Sig. value	sig. level
Word recognition	Pre test	38	2.3684	1.364	5.481	0.000	sig. at 0.01
	Post test	38	3.6579	0.534			
Word and picture association	Pre test	38	1.2895	1.250	9.249	0.000	sig. at 0.01
	Post test	38	3.5000	1.033			
Missing letter completion	Pre test	38	1.6579	1.419	11.680	0.000	sig. at 0.01
	Post test	38	4.4737	1.033			
Missing word completion	Pre test	38	1.0263	0.822	15.652	0.000	sig. at 0.01
	Post test	38	3.5789	0.858			
Writing the word correctly	Pre test	38	.2895	0.611	14.510	0.000	sig. at 0.01
	Post test	38	3.4737	1.390			
Words classification	Pre test	38	3.6579	1.697	4.736	0.000	sig. at 0.01
	Post test	38	5.2895	1.206			
vocabulary skills	Pre test	38	10.2895	4.538	19.041	0.000	sig. at 0.01
	Post test	38	23.9737	3.132			

“t” table value at (37) d f. at (0.05) sig. level equal 2.02

“t” table value at (37) d f. at (0.01) sig. level equal 2.70

Results outlined in Table (4.4) indicate that the T. computed value is (19.041), which is larger than T. tabled value which is (2.02) in the test. This means there were statistically significant differences at ($\alpha \leq 0.05$) between the mean scores of the pre-test and post-test in vocabulary skills for the experimental group in favor of the post-test. This shows that using project-based learning strategy results in improving vocabulary learning among eleventh graders. As a result, the null hypothesis was rejected in this study.

To measure the effect size of the project-based learning strategy on the experimental group in the vocabulary posttest, the researcher applied the "Effect Size" as shown in Table (4.5).

Table (4.5): "t" value, eta square " η^2 ", and "d" for the total degree

Skills	T value	η^2	d	Effect size
Word recognition	5.481	0.448	1.802	Large
Word and picture association	9.249	0.698	3.041	Large
Mising letter completion	11.680	0.787	3.840	Large
Mising word completion	15.652	0.869	5.146	Large
Writing the word correctly	14.510	0.851	4.771	Large
Words classification	4.736	0.377	1.557	Large
Vocabulary Skills	19.041	0.907	6.261	Large

The results of (η^2) and **d** values shown in Table (4.5) indicate the large effect size of the use of project-based learning strategy on the total degree of the vocabulary skills.

4.1.4 Answer to the fourth Research Question

The fourth question inquired about the following: **Are there statistically significant differences at ($\alpha \leq 0.05$) between the level of leadership skills of students in the experimental group and student's leadership skills in the control group in the post observation card?** To answer this question the researcher tested the hypothesis which says that there are no statistically significant differences at ($\alpha \leq 0.05$) between the level of students' leadership skills in the experimental group and those of their counterparts in the control group in the post observation card. To examine this hypothesis, means and standard deviation of both groups' results on the post-evaluation card were computed. Independent Samples T-test was used to measure the significant differences. Table (4.6) describes the results.

Table (4.6): T-test Independent Sample Results of Differences between the Experimental and the Control Group in the Post observation card

Skill	GROUP	N	Mean	Std. Deviation	t	Sig. value	sig. level
Planning	experimental	38	16.211	3.580	4.339	0.000	sig. at 0.01
	control	38	12.026	4.745			
Communication skills	experimental	38	16.500	3.415	4.388	0.000	sig. at 0.01
	control	38	12.211	4.966			
Problem solving	experimental	38	11.263	2.956	4.594	0.000	sig. at 0.01
	control	38	7.868	3.465			
Decision making	experimental	38	11.421	2.500	3.922	0.000	sig. at 0.01
	control	38	8.421	3.998			
Self confidence	experimental	38	16.289	3.502	3.790	0.000	sig. at 0.01
	control	38	12.474	5.124			
Presentation skills	experimental	38	11.816	2.577	4.024	0.000	sig. at 0.01
	control	38	8.737	3.950			
Time management	experimental	38	12.211	2.683	3.968	0.000	sig. at 0.01
	control	38	9.132	3.960			
Team work\group work	experimental	38	12.289	2.324	3.800	0.000	sig. at 0.01
	control	38	9.421	4.031			
Personal effectiveness	experimental	38	14.842	3.054	3.989	0.000	sig. at 0.01
	control	38	10.974	5.139			
Initiation	experimental	38	12.553	2.321	3.869	0.000	sig. at 0.01
	control	38	9.579	4.131			
Opportunity of personality	experimental	38	12.500	2.334	3.951	0.000	sig. at 0.01
	control	38	9.395	4.246			
Total degree	experimental	38	147.895	24.309	4.562	0.000	sig. at 0.01
	control	38	110.237	44.703			

“t” table value at (74) d f. at (0.05) sig. level equal 2.00

“t” table value at (74) d f. at (0.01) sig. level equal 2.66

As shown in Table (4.6), the T. computed value which is 4.562 is larger than T. table value which is 2.00 in the test which means that there are statistically

significant differences at ($\alpha \leq 0.05$) in the total average score of the post-evaluation card between the experimental and control group in favor of the experimental group. The mean of the post-evaluation card in the experimental group reached (147.895), whereas the mean of the control group was (110.237). This result indicates that using project-based learning strategy is more effective than the traditional method in developing students' leadership skills.

To measure the effect size of the project-based learning strategy on the experimental group in the post leadership observation card, the researcher applied the "Effect Size" as shown in Table (4.7).

Table (4.7): "t" value, eta square " η^2 ", and "d" for the total degree

Skills	T value	η^2	d	Effect size
Planning	4.339	0.203	1.009	Large
Communication skills	4.388	0.206	1.020	Large
Problem solving skills	4.594	0.222	1.068	Large
Decision making	3.922	0.172	0.912	Large
Self confidence	3.790	0.163	0.881	Large
Presentation skills	4.024	0.180	0.936	Large
Time management skills	3.968	0.175	0.922	Large
Team work\group work	3.800	0.163	0.884	Large
Personal effectiveness	3.989	0.177	0.928	Large
Initiation	3.869	0.168	0.899	Large
Opportunity of responsibility	3.951	0.174	0.919	Large
Leadership skills	4.562	0.220	1.061	Large

The results of (η^2) and **d** values shown in Table (4.7) indicate the large effect size of the project-based learning strategy in the total degree of the leadership skills. This can be attributed to the enjoyable, motivating and interactive learning circumstances created in the classroom as a result of using the project-based learning strategy.

4.1.5 Answer to the fifth Research Question

The fifth question is stated as: **Are there statistically significant differences at ($\alpha \leq 0.05$) in the level of leadership skills of students in the experimental group between the pre and the post observation card?** To answer this question the researcher investigated the hypothesis which says that there are no statistically significant differences at ($\alpha \leq 0.05$) in the level of leadership skills of students in the experimental group between the pre and the post application of the observation card. To examine this hypothesis, the mean scores of the experimental group results of the pre- and post-observation card were computed. T-test Paired Samples test, whose results are outlined in Table (4.8), was used to analyze the data statistically.

Table (4.8): T- Test Paired-Samples Differences between the Pre- and the Post applications of the observation card of the experimental group.

Skill	GROUP	N	Mean	Std. Deviation	t	Sig. value	sig. level
Planning	Pre test	38	11.3158	3.662	9.573	0.000	sig. at 0.01
	Post test	38	16.2105	3.580			
Communication skills	Pre test	38	11.5526	3.151	7.334	0.000	sig. at 0.01
	Post test	38	16.5000	3.415			
Problem solving skills	Pre test	38	7.6053	2.955	7.709	0.000	sig. at 0.01
	Post test	38	11.2632	2.956			
Decision making	Pre test	38	7.2632	2.544	8.251	0.000	sig. at 0.01
	Post test	38	11.4211	2.500			
Self confidence	Pre test	38	11.6842	3.103	12.904	0.000	sig. at 0.01
	Post test	38	16.2895	3.502			

Skill	GROUP	N	Mean	Std. Deviation	t	Sig. value	sig. level
Presentation skills	Pre test	38	8.1579	2.727	6.626	0.000	sig. at 0.01
	Post test	38	11.8158	2.577			
Time management skills	Pre test	38	8.5263	2.128	8.499	0.000	sig. at 0.01
	Post test	38	12.2105	2.683			
Team work\ group work	Pre test	38	9.3947	2.636	9.844	0.000	sig. at 0.01
	Post test	38	12.2895	2.324			
Personal effectiveness	Pre test	38	10.2895	2.710	10.479	0.000	sig. at 0.01
	Post test	38	14.8421	3.054			
Initiation	Pre test	38	8.5789	2.213	11.744	0.000	sig. at 0.01
	Post test	38	12.5526	2.321			
Opportunity of responsibility	Pre test	38	8.7368	2.901	7.327	0.000	sig. at 0.01
	Post test	38	12.5000	2.334			
Leadership skills	Pre test	38	103.1053	23.625	17.164	0.000	sig. at 0.01
	Post test	38	147.8947	24.309			

“t” table value at (37) d f. at (0.05) sig. level equal 2.02

“t” table value at (37) d f. at (0.01) sig. level equal 2.70

The results of Table (4.8) indicate that the T. computed value (17.164), is larger than T. tabled value which is (2.02) in the observation card. This means there are statistically significant differences at ($\alpha \leq 0.05$) between the mean scores of the pre-observation and post-observation in leadership skills for the experimental group in favor of the post-observation. This shows that using project-based learning strategy results in improving leadership skills among students. As a result, the hypothesis is null hypothesis is rejected.

To measure the effect size of the project-based learning strategy on the experimental group in the post leadership skills observation card, the researcher applied the "Effect Size" as shown in Table (4.9).

Table (4.9): "t" value, eta square " η^2 ", and "d" for the total degree

Skill	T value	η^2	d	Effect size
Planning	9.573	0.712	3.148	Large
Communication skills	7.334	0.592	2.411	Large
Problem solving skills	7.709	0.616	2.535	Large
Decision making	8.251	0.648	2.713	Large
Self confidence	12.904	0.818	4.243	Large
Presentation skills	6.626	0.543	2.178	Large
Time management skills	8.499	0.661	2.794	Large
Team work/ group work	9.844	0.724	3.237	Large
Personal effectiveness	10.479	0.748	3.445	Large
Initiation	11.744	0.788	3.861	Large
Opportunity of responsibility	7.327	0.592	2.409	Large
Leadership skills	17.164	0.888	5.643	Large

The results of (η^2) and d values shown in Table (4.9) indicate the large effect size of the project-based learning strategy in the total degree of the leadership skills.

4.1.6 Answer of the sixth Research Question

The sixth question is stated as: **Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary learning in the experimental group between the males and females?** To answer this question, the researcher tested the following hypothesis which says that there are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary learning in the experimental group between the males and females. To examine this hypothesis, the means and standard deviation of both male and female results on the post-test were computed. Independent Samples T-test was used to measure the significant differences. Table (4.10) describes the results.

Table (4.10): T-test Independent Sample Results of Differences between male and female in the Experimental Group

test	Gender	N	Mean	Std. Deviation	t	Sig. value	sig. level
Word recognition	Male	16	3.563	0.629	0.938	0.355	not sig.
	Female	22	3.727	0.456			
Word and picture association	Male	16	3.625	0.885	0.631	0.532	not sig.
	Female	22	3.409	1.141			
Missing letter completion	Male	16	4.563	0.964	0.447	0.657	not sig.
	Female	22	4.409	1.098			
Missing word completion	Male	16	3.625	0.806	0.279	0.782	not sig.
	Female	22	3.545	0.912			
Writing the word correctly	Male	16	3.750	1.390	1.046	0.302	not sig.
	Female	22	3.273	1.386			
Words classification	Male	16	5.375	1.204	0.368	0.715	not sig.
	Female	22	5.227	1.232			
Vocabulary skills	Male	16	24.500	3.120	0.881	0.384	not sig.
	Female	22	23.591	3.157			

“t” table value at (36) d f. at (0.05) sig. level equal 2.02

“t” table value at (36) d f. at (0.01) sig. level equal 2.70

As shown in Table (4.10), the T. computed value which is (0.881) is lower than T. table value which is (2.02) in the test which means that there are no statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of students' vocabulary learning in the experimental group in the post test due to gender (male, female)

4.1.7 Answer to the seventh Research Question

The seventh question is stated as: **Are there statistically significant differences at ($\alpha \leq 0.05$) in the level of leadership skills of students in the experimental group between the males and females?** To answer this question the researcher investigated the hypothesis which says that there are statistically significant differences at ($\alpha \leq 0.05$) in the level of leadership skills of students in the experimental group between the males and females. To examine this hypothesis,

means and standard deviation of both male and female results on the post-observation card were computed. Independent Samples T-test was used to measure the significant differences. Table (4.11) describes the results.

Table (4.11): T-test Independent Sample Results of Differences between male and female in the Experimental Group

Skill	Gender	N	Mean	Std. Deviation	t	Sig. value	sig. level
Planning	Male	16	17.000	2.828	1.165	0.252	not sig.
	Female	22	15.636	4.006			
Communication skills	Male	16	17.125	2.754	0.961	0.343	not sig.
	Female	22	16.045	3.823			
Problem solving skills	Male	16	11.750	2.793	0.863	0.394	not sig.
	Female	22	10.909	3.085			
Decision making	Male	16	12.250	2.017	1.795	0.081	not sig.
	Female	22	10.818	2.684			
Self confidence	Male	16	16.938	2.792	0.972	0.338	not sig.
	Female	22	15.818	3.936			
Presentation skills	Male	16	11.938	2.516	0.245	0.808	not sig.
	Female	22	11.727	2.676			
Time management skills	Male	16	12.625	2.306	0.808	0.424	not sig.
	Female	22	11.909	2.942			
Team work/ group work	Male	16	12.125	2.156	-0.368	0.715	not sig.
	Female	22	12.409	2.482			
Personal effectiveness	Male	16	15.063	2.265	0.375	0.710	not sig.
	Female	22	14.682	3.564			
Initiation	Male	16	13.125	1.857	1.309	0.199	not sig.
	Female	22	12.136	2.569			
Opportunity of responsibility	Male	16	12.625	2.217	0.278	0.783	not sig.
	Female	22	12.409	2.462			
Leadership skills	Male	16	152.563	20.202	1.010	0.319	not sig.
	Female	22	144.500	26.850			

“t” table value at (36) d f. at (0.05) sig. level equal 2.02

“t” table value at (36) d f. at (0.01) sig. level equal 2.70

As shown in Table (4.11) the T. computed value which is (1.010) is lower than T. table value which is (2.02) in the test which means that there are no statistically significant differences at ($\alpha \leq 0.01$) in the level of leadership skills of students in the experimental group in the post observation card due to gender (male, female)

Summary

This chapter showed the data analysis of the study hypotheses and their results. The results of each hypothesis were analyzed statistically using different statistical techniques. It is obvious that there are significant differences in developing vocabulary and the leadership skills among students in the experimental group and their counterparts in the control one in favor of the experimental group. The next chapter presents the discussion of findings, conclusions and recommendations.

Chapter 5
Discussion of Findings, Conclusions
and Recommendations

Chapter 5

Discussion of findings, conclusion, and recommendations

This chapter discusses the results of the study. It summarizes the conclusions which will be induced in the light of the study results. It also involves suggestions and recommendations for further studies and other recommendations which are expected to be beneficial for course designers, teachers of English, supervisors, students and educators. They could help improve teaching English language in general and vocabulary in particular.

5.1 Study Findings

Based on the findings of this study, the following results were observed:

1. There were statistically significant differences at ($\alpha \leq 0.01$) in the total mean score of students' vocabulary achievement in the post-test between the experimental and control group in favor of the experimental group.
2. There were statistically significant differences at ($\alpha \leq 0.05$) between the mean scores of students' vocabulary achievement in the experimental group's pre-test and post-test for the in favor of the post-test.
3. There were statistically significant differences at ($\alpha \leq 0.01$) in the total mean score of the leadership skills in the post application of the observation card between the experimental and control group in favor of the experimental group.
4. There were statistically significant differences at ($\alpha \leq 0.05$) between the mean scores of the leadership skills in the pre-observation and post-observation in leadership skills of the experimental group in favor of the post-observation.
5. There were no statistically significant differences at ($\alpha \leq 0.01$) in the mean scores of students' vocabulary achievement among the experimental group in the post test due to gender (male, female).
6. There were no statistically significant differences at ($\alpha \leq 0.01$) in the level of leadership skills of students in the experimental group in the post observation card due to gender (male, female).

The general findings of the study showed that the experimental group that was taught by using project-based learning strategy outperformed the control group that was taught by traditional methods.

5.2 Discussion of Findings

The study aimed at investigating the effectiveness of using project-based learning strategy in developing third graders' vocabulary achievement and their leadership skills. To achieve this aim, the researcher adopted the experimental approach where there were two equivalent groups: the experimental group and the control one.

The experiment was designed to determine if the third graders' vocabulary achievement and leadership skills would be increased with the use of project-based learning strategy. All students of the experimental group showed an increase in their performance on vocabulary achievement post-test. Furthermore, the experimental group showed obvious change in their leadership skills on the post observation card after the implementation of the project-based learning strategy which were positively affected after six-week experiment.

These findings of the present study agree with many previous studies' results that proved the effective role and impact of the project-based learning strategy on learning English in general and vocabulary in particular. These are the studies of Al-Jamal (2014), Nassir (2014), Gökhan Baş (2011), Fragoulis (2009), Foss et al. (2006), Shafaei et al.(2007) and Nurnia's (n.d.).

5.2.1 Discussion of the findings of the first and second hypotheses:

Because of the close relationship between the first and second hypotheses the researcher is going to interpret their findings together. The findings of the study first and second hypotheses showed that there were statistically significant differences at ($\alpha \leq 0.05$) between the mean scores of students' vocabulary achievement in the pre-test and post-test of the experimental group in favor of the post-test. And it also showed that there were statistically significant differences at ($\alpha \leq 0.01$) in the total mean score of students' vocabulary achievement in the post-test between the

experimental and control group in favor of the experimental group. In addition, the researcher found that the effect size was large in the total scores of the post test. This effectiveness of the project-based learning strategy and its large effect size could be attributed to many different reasons as follows:

- The experimental group students implemented three projects about three different topics from the third grade curriculum which were:” jobs, food, and animals”. There were many new vocabulary items to identify, memorize and even use in context. Teaching students by using project-based learning strategy helped them to be familiar with these vocabulary items as part of their life because they had to use them in all the steps and the stages of the project either inside or outside the classroom.
- The variety of activities, tasks and missions that were expected to be done and achieved by the students themselves during the implementation of the projects completely depended on using this vocabulary. These activities were used as formative and summative evaluation. For example, they were expected to associate words with related pictures in many different techniques according to the nature of the project.
- The variety of techniques and teaching aids used by the teacher such as brainstorming, questions derivation, discussion and presentation helped to improve the students’ thinking skills in addition to their use of language during participation in all these techniques. And even if they did not know the exact words that they should use, they tried to express themselves and they were encouraged to ask whatever questions they wanted.
- Using project-based learning strategy created an enjoyable, motivating and interactive atmosphere in the classroom which increased the student’s enthusiasm and motivation. In other words, it made it fun to learn English and especially to learn vocabulary. Moreover, the students looked at this strategy as an attractive, exciting and new way in contrast with the traditional boring one.
- Working in groups and in pairs helped students to discuss and share their ideas and information with each other, which consequently helped the low achievers to

get the idea and to have the opportunity to use the new words comfortably with their colleges.

- Implementing the projects required students to use pictures, posters and real objects that are obviously beneficial in learning vocabulary, especially for the young learners.
- The duration of the experiment was suitable enough for the students to be familiar with the steps and stages of the projects in addition to the repetition of the vocabulary in each task they were supposed to do.
- Homework activities related to the project were clearly effective, which helped students to transfer their classroom knowledge to their real life and to get more support from their families in addition to involving them in these activities. This could give them the opportunity to use the language and especially the target words in other situations outside the class, which effectively helped the vocabulary to stick in their minds.
- The procedures of project-based learning strategy were very clear for the students. They were familiar with their roles and they moved from an activity to another smoothly with the help of the teacher. The teacher role was also definite as she was a facilitator and counselor rather than a dominator.
- The teacher encouraged students to search for certain topics; so they did not get the information easily. They made effort getting the information and this helped them to better memorize the used words.

Accordingly, the researcher noticed this clear positive impact of using this strategy on developing the student's vocabulary in the final stages of the experiment application in which the students appeared to be active learners and they had a good chance to be so close to the teacher who gave each one of them time, help and special care. These results agreed with those of Al-Jamal (2014), Nassir (2014), Gökhan Baş,s (2011), Fragoulis (2009), Foss, et al. (2006), Shafaei et al.(2007) and Nurnia's (n.d.), which revealed the effectiveness of project-based learning strategy on achievement.

5.2.2 Discussion of the findings of the third and fourth hypotheses:

Because of the close relationship between the third and the fourth hypotheses the researcher is going to discuss their findings together. The findings of the study third and the fourth hypotheses showed that there were statistically significant differences at ($\alpha \leq 0.01$) in the total mean score of the leadership skills in the post application of the observation card between the experimental and control group in favor of the experimental group. The findings also showed that there were statistically significant differences at ($\alpha \leq 0.05$) between the mean scores of the leadership skills in the pre application of the observation and that of the post application in leadership skills of the experimental group in favor of the post-observation. In addition, the researcher found that the effect size was large in the total scores of the post application of the observation card. This effectiveness of the project-based learning strategy on developing the students' leadership skills and its large effect size could be attributed to many different reasons as follows:

- The activities and tasks required from the students were simple and suitable to their age and nature. They were full of movement and interactions, which helped the students to do and complete these activities easily; this led them to get self-confidence and also encouraged them to express their opinions and feelings confidently without hesitation.
- Implementing projects gave the students the opportunity to participate in the planning stage where they were supposed to set the goals and to prepare the materials needed in each project in the initial stages of implementing the projects; so this strategy helped to improve their planning skills. which is one of the most important leadership skills.
- During the projects, students communicated with each other positively, politely and friendly in order to achieve the main goals of the projects. Moreover, they shared and exchanged the ideas and information using effective written, verbal, and nonverbal skills to convey the message. In addition, they participated more in the discussion of their projects among the group members. So communication skills were developed via project-based learning strategy.

- Students were asked to complete each activity in a definite time, so they tended to divide each task or activity to smaller tasks and tried to finish them in the definite time. The teacher trained them on this skill and encouraged them by creating a competitive atmosphere that led to improve their time management skills which is considered to be an important leadership skill.
- All the students even the low achievers were motivated and excited by the verity of the activities. They all raced to participate effectively by bringing the needed materials, helping each other, acting different roles inside the class and asking the teacher any questions they wanted. This helped to improve the initiation spirit among them, which is needed in the real leader.
- Each project was supposed to be presented at the final stage; the group members prepared for this presentation and had to choose the leader to present the project. A different leader was chosen for each project presentation, which gave the opportunity to many students to act the role of presenter. The student who presented the project was aware to use body language and gestures properly and to face the audience confidently to explain his project. These presentation skills which are basics in leadership skills were clearly developed among many members of the experimental group.

The researcher clearly observed the development of leadership skills through applying the observation cards of the leadership skills on the students by both, the researcher and another teacher, in the final stages of the experiment. The results revealed the obvious changes in their leadership skills. The researcher's observation agreed with the other teacher's observation, which assured that the results were accurate. This insured the effectiveness of project-based learning strategy on the leadership skill and it agreed with the results of the studies of Al-Jamal (2014), which assured the effect of the project on the students' character and creating a community of autonomous learners and Bagheri, et al. (2013), which confirmed that project-based learning strategy helped to get a better self-directed learning skill which is one of the leadership skills.

5.2.3 Discussion of the findings of the fifth and sixth hypotheses:

Because of the close relationship between the fifth and sixth hypotheses the researcher is going to interpret their findings together. The findings of the fifth and sixth hypotheses showed that there were no statistically significant differences at ($\alpha \leq 0.01$) in the mean scores of students' vocabulary achievement among the experimental group in the posttest due to gender (male, female). Also they showed that there are no statistically significant differences at ($\alpha \leq 0.01$) in the level of leadership skills of students in the experimental group in the post application of the observation card due to gender (male, female). These results could be attributed to many different reasons as follows:

- Both boys and girls inside the experimental group received the same knowledge and the same amount of vocabulary via the same strategy and also by the same teacher.
- The activities were distributed among all students equally in which every student had his/her role to achieve the goals of the project. The teacher herself did not differentiate between male and females while distributing the activities. In addition, the groups were mixed of boys and girls.
- All students (males and females) were at the same age and have the same characteristics, needs and abilities that depend on movement, games, pictures, real objects, repetition and motivation. They all received the same treatment.

5.3 Conclusions:

Based on the findings derived from the results of this study, the following was concluded:

1. Students were clearly more engaged in learning with the PBL strategy than the traditional way as the PBL strategy was more interesting and held their attention longer.
2. It also increased the students' motivation and involvement in the classroom.
3. The PBL strategy increased the students' interaction in class as it was a new way for them and very attractive to their attention.

4. It increased the variety of lessons when preparing lessons for instruction, which of course reduced the students' boredom of seeing the same things all the time.
5. It was suitable for all types of students, such as visual, auditory and tactile learners due to the variety of activities led by the students themselves.
6. The PBL strategy helped the learners develop many life skills like intellectual, social, emotional and moral skills which were the skills the learners had to develop at school learning.
7. The PBL strategy helped the learners develop many thinking skills like critical, deep, creative and research skills which were very clear in the activities of the projects.

5.4 Recommendations

In the light of the study findings, the following recommendations which may be helpful are suggested by the researcher.

5.4.1 Recommendations to teachers

Teachers are recommended to:

- Give more attention to the vocabulary learning and how to teach it as it is the core of any language.
- Benefit from the teacher's guide and distribute it among themselves.
- Adopt this strategy in teaching vocabulary and design more lesson plans and more creative projects.
- Adopt this strategy in teaching other English skills and areas.
- Use the strategy in teaching other school subjects.
- Search more for new and modern strategies to enhance students' participation and interaction and to change their traditional methods.

5.4.2 Recommendations to supervisors

Supervisors are recommended to:

- Conduct workshops and courses that aim at familiarizing teachers with the project-based learning strategy and how to implement it in different lessons in the curriculum.
- Prepare instructional materials that increase teachers' awareness of this strategy and highlight the importance of using it in teaching English and other school subjects.

5.4.3 Recommendations to course designers

Course designers are recommended to:

- Enrich the curriculum with different projects which are suitable for the students' age, needs and abilities and which tackle different topics and skills.
- Prepare and design guiding materials to help the teachers while applying project-based learning strategy and other new strategies.

5.4.4. Recommendations for further studies:

In the light of the study findings, the researcher also suggests the following:

- Conducting other studies related to the effect of project-based learning strategy on developing different thinking skills.
- Conducting other similar studies dealing with young learners in other subjects.
- Conducting a study about the effect of project-based learning strategy on developing the future thinking skills.
- Conducting a study about the effect of project-based learning strategy on developing the leadership skills of kindergarten students.

References

References:

- Adair, J. (2002). *Effective Strategic Leadership*. Pan Macmillan, London: 20 New Wharf Road.
- Aghlara, L. and Tamjid, N. (2011). The effect of digital games on Iranian children's vocabulary retention in foreign language acquisition. *The 2nd International Conference on Education and Educational Psychology*, 29, 552–560.
- Al-Faleet, F. (2013). *The Effectiveness of Using Puzzles in Developing Palestinian Tenth Graders' Vocabulary Achievement, Retention and attitudes Towards English* (Unpublished Master thesis). Islamic University of Gaza.
- Al-Jamal, H. (2014). Self- Directed Learners. *Arab World English Journal*, 5 (2), 122- 133.
- Alshaya, H. & Oyaid, A. (2015). The Use of GOOGLE+ in Project Based Learning with Students of Princess Nourah University and their Satisfaction Towards it. *Special International Educational Journal*, 4 (1), 527-543.
- Ardeo, J. M. G. (2003). Attitude towards English and ESP acquisition as an L2 or L3 at university. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)*, (6), 109-133.
- Astin, A.W. and Astin, H.S. (1996). *A Social Change Model of Leadership Development*. University of California, Los Angeles: Higher Education Resources Institute.
- August, D. Carlo, C. and Snow, C. (2005). The Critical Role of vocabulary development for English language Learners. *Learning Disabilities: Research and practice*, 20 (L), 50-57
- Ayto, J. (1999). *Twentieth Century Words*, Oxford: Oxford University Press.
- Bagheri, M., Ali, W., Abdullah, M. & Daud, S. (2013). Effects of Project-based Learning Strategy on Self-directed Learning Skills of Educational Technology Students. *Contemporary Educational Technology Malaysia*, 4(1), 15-29.

- Bas, G. (2011). Investigating the Effects of Project - Based Learning on Students' Academic Achievement and Attitudes toward English Lesson. *The Online Journal of New Horizons in Education*. 1(4). 1-15.
- Beck, I.G. Mckeown and L. Lucan. (2002). *Bringing words to life, Robust Vocabulary Instruction*. New York: Guilford.
- Bin Harun, D. (2006). *Project-based Learning: Educating the Millennial Learners*. Malaysia Communications and Training Sector. Ministry of Education.
- Bintz, W. (2011). Teaching Vocabulary across the Curriculum. *Middle School Journal*, 44-53. Retrieved on Jun3,2016 from: www.nmsa.org
- Bisland, A. (2004). Developing Leadership Skills in Young Gifted Students. *Gifted Child Today*, 27, 24-27.
- Blumenfeld, P. Soloway, E. Marx, R. Krajcik, J. Guzdial, M. and Palincsar, A. (1991). *Motivating Project Based Learning: Sustaining the Doing, Supporting the Learning*. The University of Michigan. Educational Psychologist. Lawrence Erlbaum Associates
- Boudersa and Hamada, (2015). Student-Centered Teaching Practices: Focus on The Project-Based Learning Model to teaching in Algerian High-School Contexts. *Arab World English Journal AWEJ*. Bejaia University: Algeria.
- Boukhira, M. (2010). *Teaching and Learning Vocabulary through Spelling Strategy* (Unpublished Master thesis). Mentouri University, Constantine.
- Branch, L. J. (2015). The Impact of Project-Based Learning and Technology on Student Achievement in Mathematics. In *New Media, Knowledge Practices and Multiliteracies* (pp. 259-268). Springer Singapore.
- Bromley, K.D. (2002). *Stretching Students' Vocabulary*. New York: Scholastic Professional Books.
- Brummitt.Y.J.(2009). *Effect of Three Types Vocabulary on Readability of Intermediate Grade Science Textbooks: An Application of Finns Transfer feature theory*.
- Cameron, I. (2001). *Teaching Language to young learners*. UK: Cambridge University Press.

- Carlisle, J.F. (2002). *Fostering Vocabulary Development in English Elementary Classrooms*. University of Michigan/ CIERA.
- Carter, R. and McCarthy, M. (1988). *Vocabulary and Language Teaching*. London and New York: Longman.
- Chard, S. (2013). Project Approach, Standards, Teachers. Role as facilitator. *The Project Approach to Teaching and Learning*. Community plays things.
- Chin, B .(2004). *How to Build a Super Vocabulary*. LLC Hoboken, New Jersey. Canada: Book Building.
- Chiung. Sui Chang et.al,(2011). Integration of Project-based Learning Strategy with Mobile Learning. Case Study of Mangrove Wetland Ecology Exploration project. *Tamkang Journal of Science and Engineering*, Vol.14, No3 P (265-273). Taiwan.
- Creghan, C. & Adair-Creghan, K. (2015). The Positive Impact of Project-Based Learning on Attendance of an Economically Disadvantaged Student Population: A Multiyear Study. *Interdisciplinary Journal of Problem-Based Learning*, 9 (2), 7.
- Doğan, Y., Batdı V. and Yildirim, B. (2012). Teachers' Views on the Practice of Project – Based Learning Approach in Primary School Science Education. *New Perspective in Science Education*. Retrieved on May6,2016 from: http://conference.pixelonline.net/science/common/download/Paper_pdf/24-SEP11-FP-Dogan-NPSE2012.pdf
- DulWich College Suzhou. (2010). Developing Leadership Skills. *Building Bridges to the World*. Retrieved on June24, 2016 from: www.dulwich.suzhou.cn
- Eskrootchi, R., & Oskrochi, G. R. (2010). A Study of the Efficacy of Project-based Learning Integrated with Computer-based Simulation - STELLA. *Educational Technology & Society*, 13 (1), 236–245.
- Foss, P., Carney, N., McDonalad, K. & Rooks, M. (2006). Project-Based Learning Activities for Short-Term Intensive English Programs. *Asian EFL Journal*. The EFL Professional's Written Forum.

- Fragoulis, I. (2009). Project-Based Learning in the Teaching of English as A Foreign Language in Greek Primary Schools: From Theory to Practice. *English Language Teaching Journal*, 3 (2), 113.
- Gill, R. (2012). *Theory and practice of leadership*. 2nd .ed. SAGE publication, Ltd.1 Oliver's Yard. 55 City Road. London.
- Hadfield, J. (1998). *Elementary Vocabulary Games*. Longman, Pearson Education. Retrieved on May16,2016 from: www.longman.com
- Hallermann, S.L.and Mergendoller.(2011). *PBL in the Elementary Grades: Step-by-Step Guidance, Tools and Tips for Standards-Focused K-5 Projects*. First Edition. USA: Buck institute for Education, California
- Harper, A. (2013). *Developing Key Competences*. Europe: European School net.
- Hay, I. and Dempster, N. (2000). Student Leadership Development through General Classroom Activities. *Educating: Weaving Research into Practice*, 2, (41) 41-150
- Helm, J. and Katz, L. (2011). *Young Investigators. The Project Approach in the Early Years*. 2nd Edition. The Project Planning Journal. Teacher College Press, Columbia University.
- Hess, L. (2010). *Student Leadership Education in Elementary Classrooms*. Unpublished Master Thesis. University of California San Rafael.
- Hiebert, E. and Kamil, M.(2005). *Teaching and Learning Vocabulary Bringing Research to Practice*. London: Lawrence Erlbaum Associates.
- Hooper, A. and Potter, J. (1997). *The Business of Leadership*. Ashgate Publishing Company. England: Gower House.
- Illinois Early Learning Project Web Site, (2015). *Project Approach for Preschoolers*. Retrieved on May17,2016 from: Illinoisearlylearning.org/tipsheets/projects-overview.htm
- Intel R Tech Program .(2007). *Designing Effective Projects*. United States.
- Jackson, H. (2002). *Grammar and Vocabulary*. Rutledge, London: New Fetter Lane.

- Keshta, A. S. (2000). *Alternative Approaches for Teaching English Literature to undergraduate Students in Gaza Strip*. Houston, Texas: University of Houston.
- Kennedy, J. (2015). *Leadership Skills. Developing the skills you need to lead. Skills you Need*. Ltd
- Klein, L., J. et al. (2009). *Project-Based Learning: Inspiring Middle School Students to Engage in Deep and Active Learning*. NYC. Department of Education.
- Koparan, T. & Güven, B. (2014). The Effect of Project Based Learning on the Statistical Literacy Levels of Student 8th Grade. *European Journal of Educational Research*, 3 (3), 145-157.
- Kretman, K. (2009). Teach Leadership Early. *The Washington Post*. Retrieved on May24,2016 from: <http://www.washingtonpost.com>
- Learning Express, (2009). *Word Power in 15 minutes a day*. 1st edition. The United States by Learning Express, LLC, New York. Retrieved on June2,2016 from: www.learnatest.com
- Lwankovitsch, D. (2013). *Effective instructional Strategies to enhance vocabulary developing in Elementary classroom* (Unpublished Master Thesis). Northern Michigan University.
- Lynch, T. and Anderson, K. (2012). *Effective English Learning*. Vocabulary English Language Teaching Centre, University of Edinburgh
- Makni, F. (2014). Applying Cognitive Linguistics to Teaching Polysemous Vocabulary. *Arab World English Journal AWEJ*. 5(1). Pp 4-20. University of Sharjah: United Arab Emirates.
- McCarthy, M. and O'Dell, F. (1999). *English Vocabulary in Use. 100 units of vocabulary reference and practice self-study and classroom use*. UK: Cambridge University Press.
- Mergendoller, J. and Thomas, J. (2011) *Managing Project based learning. Principles from the field*. California: Buck Institute for Education.

- Meriem, B. (2009). *Teaching and Learning Vocabulary Through Spelling Strategy*. (Unpublished Master Dissertation). Mentouri University: Algeria.
- Mincemoyer, C. (2012). *Better Kid Care. Leadership Fun for Children*. Penn State Extension. Pennsylvania Departments of Education and Public Welfare.
- Moody, G. (2000). *Using How People Learn Model with Leadership Skills Development*, Arizona State University. Retrieved on May3,2016 from: www.mastermoody.com/Master_Moody/About.../HowPeopleLearn.pdf
- Nassaji, H. (2003). L2 Vocabulary Learning from context. Strategies knowledge sources, and their relationship with success in l2 lexical Inference. *TESOL. Modern Language journal*, (37),645-670.
- Nassir, S. (2014) *The Effectiveness of Project-based Learning Strategy on Ninth Graders' Achievement Level and their attitude towards English in Governmental Schools-North Governorate*. (Unpublished Master Dissertation). Islamic University: Gaza
- National Academy Foundation. (2011). *Project based learning Guide*.
- Nikolaeva, S. (2012). Improving Initial Teacher Education by Using the Project-Based Learning Approach. *Educational Research Journal ER*. 1(1). University of Alicante: Bulgaria.
- Northouse, P. (2012). *Introduction to Leadership Concepts and Practice* . United States of America: Western Michigan University
- Nurnia. Project-based Learning for EFL Vocabulary Class. *Ringkasan Hasil Penelitian*
- Padua, J. and Hanson, S. (2011). *Teaching Vocabulary Explicitly*. Pacific Resources for Education and Learning.
- Patton, A. and Robin, J. (2012). *The teacher's guide to Project-based Learning*. UK: Paulthamlyn Foundation.
- Pikulski, J. and Templeton, S. (2004). *Teaching and Developing Vocabulary: Key to Long-term Reading Success*. USA: Houghton Mifflin Company. Litho. Retrieved on June7,2016 from:www.eduplace.com

- Read, J. (2000). *Assessing Vocabulary*. United Kingdom: Cambridge.
- Richards, C. Jack and Renandya, A. Willy. (2002). *Methodology in language teaching, an anthology of current practice*. UK: Cambridge University Press.
- Ryan, J. (2010). *Five Leadership skills you and Your Organization Can't do without*. Center of Creative Leadership.
- Satralkar, M. (2006). *Child leadership*. Training and Research Institute. INDUS.
- Schroder, K. Noble, S. Christie, M. Goodman, S. Junes, G. and Rogers, R. (2001). *Linking Leadership Development to Instruction. A Leadership Development Curriculum for Virginia Public Schools*. Commonwealth of Virginia Department of Education: Virginia: Richmond.
- Shafaei, A. (2007). *Use of Project-Based Learning in Increasing Students' Vocabulary Knowledge and Communicative Ability*. Iran: Islamic Azad University, Rasht Branch.
- Stoll, L and Temperley, J. (2009). *Improving School Leadership*. OECD Organization.
- Sui Chang, Ch, Tzu Wong, W and Yung Chang, Ch (2011). Integration of Project-Based Learning. Case Study of Mangrove Wetland and Ecology Exploration Project. *Tamkang Journal of Science and Engineering*, 14 (3), 265-273.
- Thornbury, S. (2002). *How to Teach Vocabulary*. Edinburgh Gate Harlow. England: Longman. ISBN: 0582429668.
- Wafi, N. (2013). *The Effectiveness of Using Animated Pictures Program in Learning English Vocabulary among the Fifth Graders in Gaza* (Unpublished Master's Thesis). Islamic University of Gaza.
- Western, S. (2013). *Leadership. A critical Text*. California: SAGE publication. Inc. 2455, Teller Road. Thousand Oaks.
- Wilkins, D.A. (1972). *Linguistics in language teaching*. London: Edward Arnold Ltd.
- Long, R. (2008). *Leadership in Project Management*. Master of Science in the School of Architecture and Building Construction Program. Georgia Institute of Technology.

Yalcain, S. , Turgut, U. & Buyukkasap, E. (2009).The Effect of Project Based Learning on Science Undergraduates' Learning of Electricity, Attitude towards Physics and Scientific Process Skills. *International Online Journal of Educational Sciences*, 1 (1), 81-105.

Yule, G. (1996). *The study of language*. UK: Cambridge University Press.

Appendices

Appendix (1)
Achievement Pre-posttest

The Islamic University of Gaza
Scientific Research Affairs & Graduate Studies Deanship
Faculty of Education
Curriculum & Instruction Department



Achievement Pre-posttest

"Third Grade"

Prepared by
Safa Migdad

Supervised by
Dr. Sadek Firwana

**The Islamic University of Gaza
Scientific Research Affairs & Graduate Studies Deanship
Faculty of Education
Curriculum & Instruction Department**



Refereeing Achievement Test

Dear Professor, Supervisor, Expert teacher,

The researcher is conducting a study entitled “ **The Impact of Project-Based Learning Strategy on 3rd Grade English Vocabulary and their leadership skills at UNRWA Schools in Gaza**” to obtain a Master's Degree in Curriculum & English Teaching Methods.

One of the requirements of this study is to conduct vocabulary achievement test for 3rd grader’s. You are kindly invited to look carefully at the attached test and check whether the items are suitable or unsuitable.

Your notes and comments will be highly appreciated and confidential. Any modifications, additions, or omissions will be taken into consideration.

Thank you for your cooperation

Safa Migdad

Referees personal data

Name

Degree:

Institution:

Vocabulary achievement test

Name

Mark.....

1 Circle the word you hear:

حوط الكلمة التي تسمعها: 4.ms

1	2	3	4
chips	doctor	yellow	snake
Chicken	policeman	gray	fox
carrot	brother	green	monkey
Chocolate	dentist	Brown	tiger

.....

2 Write:

4.ms اكتب الكلمة المناسبة: {lemons meat potatoes grapes}



.....

.....

.....

.....

.....

3 Complete the missing letter

5.ms أكمل الحرف الناقص: { m - t - p - e - g }



....oliceman

....eacher

.....onkey

....iraffe

....lephant

4 complete:

{ dentist – fast – snake – biscuits }

4.ms أكمل الفراغ

• The plane is



• I'd like, please.



• He's a



• I don't like



.....

5 write the word correctly:

رتب الحروف واكتب الكلمة صحيحة 5 .ms



ocrtod



revdir



noinos



treig



isfh

.....

.....

6 Classify:

صنف 3.ms

{ snake – brown – grey – fox – blue – monkey }

animals حيوانات	colors ألوان

GOOD LUCK

Appendix (2)
Observation Card of Leadership Skills

The Islamic University of Gaza
Scientific Research Affairs & Graduate Studies Deanship
Faculty of Education
Curriculum & Instruction Department



Observation Card of Leadership Skills

"Third Grade"

Prepared by
Safa Migdad

Supervised by
Dr. Sadek Firwana

The Islamic University of Gaza
Scientific Research Affairs & Graduate Studies Deanship
Faculty of Education
Curriculum & Instruction Department



Refereeing an observation card about leadership skills

Dear referee,

The researcher is conducting a study entitled “ **The Impact of Project-Based Learning Strategy on 3rd Graders’ English Vocabulary and their leadership skills at UNRWA Schools in Gaza**” to obtain a Master's Degree in Curriculum & English Teaching Methods.

This study required building an observation card to measure the leadership skills for 3rd grader’s students. You are kindly invited to look carefully at the attached observation card and fill in the following form whether the items are suitable or not regarding:

- The scale items suit the third graders’ level.
- The belonging of each item to its domain.
- The deletion or addition of items

Your notes and comments will be highly appreciated and confidential. Any modifications, additions, or omissions will be taken into consideration.

Thank you for your cooperation

Safa Migda

Referees personal data

Name

Degree :

University:

The observation card consists of eleven leadership skills which are described as the following:

No.	Skill	Description
1	Planning skills	the student ability to prepare for what he or she will do concerning the coming project; such as goal setting, material preparation and identification of steps
2	Communication skills	using effective written, verbal, and nonverbal skills to convey the message to others and to exchange opinion and feelings
3	Problem solving	the student ability to suggest and create several solutions for problematic situations
4	Decision making	the student ability to see things from different perspectives and to make ethical decisions or consider someone else's point of view
5	Self-confidence	Discovery of personal interests and heroes who they can look up to for inspiration and motivation
6	Presentation skills	the student ability to present and show his/her project (title, goals, importance, procedures and results) systemically and logically using graphs, pictures, organograms and concept maps
7	Time management	the student ability to manage and organize his/her time during his/her work on the project activities and tasks
8	Team work/group work	Provide opportunities for teamwork: good leaders learn from others and are willing to be led. They also know how to get things done without being bossy and alienating others
9	Personal effectiveness skills	the student ability to affect others either by motivating them to do a certain behavior or by persuading them to think in a different way
10	Initiation	the student ability to do things by him/herself without other's demand and his/her ability of action making rather than command waiting
11	Opportunities for responsibilities	the student ability to act and behave well when offering him/her opportunity to have responsibilities and experiences in many different roles in clubs, on school trips, in presentations and debates and around the home

No.	Skill	Item		
			Yes	NO
1	Planning	1. The student can set the main goals of the project.		
		2. She can determine and prepare the materials.		
		3. She can use alternative materials and procedures to achieve the goal.		
		4. She can rearrange the activities according to their importance.		
2	Communication skills	5. She interacts with her colleagues positively.		
		6. She exchanges her colleagues the opinions and ideas.		
		7. She speaks with other politely.		
		8. She acts the role of teacher well.		
3	Problem-solving	9. She can determine the problem clearly.		
		10. She can collect data about the problem.		
		11. She can put many solutions to the problem.		
4	Decision making	12. She searches for logical solutions to face the problem.		
		13. She chooses the best solution.		
		14. She makes decisions in the right time.		
5	Self-confidence	15. She says her opinion confidently.		
		16. She expresses her feelings without hesitation.		
		17. She accepts the constructive criticism.		
		18. She can face the audience confidently.		
6	Presentation skill	19. She has linguistics fluency.		
		20. She can use the body language properly.		
		21. She can attract and motivate others.		
7	Time management	22. She divides the activities according to the time.		
		23. She completes the tasks in the definite time.		
		24. She writes the tasks and activities in her own notebook.		
8	Team work	25. She doesn't hesitate helping her colleagues.		

No.	Skill	Item		
			Yes	NO
		26. She tends to work in groups.		
		27. She works with others by team spirit.		
9	Personal effectiveness skill	28. She can persuade others easily.		
		29. She is interested of others' feelings.		
		30. She always encourages others.		
		31. Her colleagues usually emulate her.		
10	Initiation	32. She tends to help others quickly.		
		33. She acts different roles inside the class.		
		34. She tends to ask the teacher questions.		
11	Opportunities for responsibilities	35. She depends on herself to complete the mission.		
		36. She does her best to achieve the goal.		
		37. She is responsible of her behaviors and decisions.		

Notes:



الدكتور/ة الفاضل/ة : حفظه الله

الموضوع / المشاركة في تحكيم بطاقة ملاحظة مهارات القيادة

تحية طيبة وبعد ،،

تقوم الباحثة بإجراء دراسة لنيل درجة الماجستير تخصص طرق تدريس اللغة الانجليزية بعنوان:
" أثر استخدام استراتيجيات التعلم القائم على المشروع على تحصيل المفردات في مادة اللغة
الانجليزية ومهارات القيادة لدى طلبة الصف الثالث الابتدائي".

من متطلبات الدراسة بناء بطاقة ملاحظة لقياس مهارات القيادة لدى طالبات الصف الثالث
الابتدائي، ونظرا لما تتمتعون به من خبرات علمية وعملية يسعدني أن أضع بين أيديكم بطاقة
ملاحظة لمهارات القيادة ، للاستفادة من ملحوظاتكم وتوجيهاتكم من حيث :

- مدى ملائمة كل فقرة لقياس مهارات القيادة .
- مدى ملائمة الفقرات لعمر طالبات الصف الثالث.
- مدى سلامة اللغة المستخدمة في الفقرات .
- مدى دقة ووضوح الفقرات.

راجيةً من سادتكم إدخال ما ترونه مناسب من تعديلات وإضافات على بطاقة الملاحظة. شاكرةً
تعاونكم ومقدرةً جهدكم ، وخدمتكم للبحث العلمي
مع خالص الشكر والتقدير

الباحثة

صفاء إبراهيم مقداد

البيانات الشخصية للأساتذة المحكمين :

الاسم :

الوظيفة / الرتبة الأكاديمية:

التخصص :

الجامعة :

تتكون بطاقة ملاحظة مهارات القيادة لدى طالبات الصف الثالث من 11 مهارة، وفيما يلي وصفاً لهذه المهارات:

م	المهارة	تعريفها
1	التخطيط	قدرة الطالب على الإعداد والتحضير المسبق لما ينبغي القيام به وتمثل في تحديد الهدف من المشروع واختيار الاستراتيجية الملائمة وتحديد الخطوات المؤدية لتنفيذ المشروع
2	التواصل الفعال	قدرة الطالب على التفاعل مع الآخرين وتبادل الآراء والمشاعر من خلال وسائل لفظية وغير لفظية، وتقبل آراءهم .
3	حل المشكلات	قدرة الطالب على وضع اقتراحات وحلول للمواقف المختلفة التي تواجههم والتي تمثل مشكلة بالنسبة لهم.
4	اتخاذ القرارات	القدرة على التفكير واختيار أفضل البدائل أو الحلول الممكنة في موقف معين أو مشكلة ما.
5	الثقة بالنفس	قدرة الطالب على التعبير عن رأيه وذاته ومشاعره وأفكاره بحرية دون خوف أو تردد.
6	العرض والتقديم	قدرة الطالب على تقديم وعرض مشروعه بطريقة منظمة ومنطقية من خلال صور ، مخططات، وخرائط مفاهيمية.
7	إدارة الوقت	قدرة الطالب على تنظيم وقته خلال تنفيذه لنشاطات المشروع والعمل جاهداً على انجاز كل نشاط في وقته المحدد
8	العمل الجماعي	قدرة الطالب على العمل ضمن فريق من أجل تحقيق هدف محدد وإنجاز مهمة معينة
9	التأثير في الآخرين	قدرة الطالب على استثارة دوافع الآخرين وتشجيعهم للقيام بأعمال وسلوكيات محددة .
10	المبادرة	القدرة على قيام الطالب بفعل الشيء من تلقاء نفسه دون الطلب منه وميله للمبادأة في صناعة الحدث دون انتظاره.
11	تحمل المسؤولية	الاعتماد على النفس خلال انجاز الطالب للمهام التي توكل إليه وتحمل مسؤولية العواقب والنتائج المترتبة عن السلوك والأقوال.

م	المهارة	الفقرة	1	2	3	4	5
1	التخطيط	1. تحدد الهدف الرئيسي من المشروع					
		2. تختار الأدوات والمواد اللازمة للمشروع.					
		3. تستخدم مواد وطرق بديلة لتحقيق الهدف.					
		4. تصنف الاعمال والمهام حسب الأهمية.					
2	التواصل الفعال	5. تتفاعل مع زميلاتها بشكل ايجابي					
		6. تتبادل الآراء والأفكار مع أعضاء المجموعة أثناء المناقشة.					
		7. تتواصل مع الاخرين باهتمام ومودة.					
		8. تجيد دور المعلم الصغير.					
3	حل المشكلات	9. تحدد المشكلة بشكل واضح ودقيق.					
		10. تجمع المعلومات حول المشكلة المحددة.					
		11. تضع حلول متعددة للمشكلة وتنفذ المناسب منها.					
4	اتخاذ القرارات	12. تبحث عن بدائل منطقية لحل المشكلة التي تواجهها.					
		13. تختار البديل الذي يحقق أفضل النتائج.					
		14. تتخذ القرارات في الوقت المناسب					
5	الثقة بالنفس	15. تعبر عن رأيها ومشاعرها بثقة ودون تردد.					
		16. تتحكم في انفعالاتها عند مواجهة اي مشكلة.					
		17. تتقبل النقد البناء.					
		18. تواجه الجمهور بثقة عالية ودون خوف.					
6	العرض والتقديم	19. تمتلك طلاقة لفظية ولغوية.					
		20. تستخدم لغة الجسد خلال العرض والتقديم					
		21. تجذب انتباه الجمهور وتشعل حماسهم.					
7	إدارة الوقت	22. تقسم المهام الموكلة إليها وتضعها في جدول زمني.					
		23. تنجز المهام المطلوبة في الوقت المحدد.					
		24. تكتب المهمات المطلوب انجازها في مفكرة الواجبات.					

م	المهارة	الفقرة	1	2	3	4	5
8	عمل الفريق / العمل الجماعي	25. تساعد زميلاتك دون تردد.					
		26. تميل الى العمل الجماعي والتعاوني.					
		27. تعمل مع زميلاتك بروح الفريق داخل المجموعة.					
9	التأثير في الآخرين	28. تستطيع إقناع الآخرين بسهولة.					
		29. تهتم بمشاعر ومشكلات زميلاتك.					
		30. تشجع زميلاتك عند قيامهن بسلوك جيد.					
		31. تمثل قدوة حسنة لزميلاتك لما تمتلكه من مهارات.					
10	المبادرة	32. تبادر في طرح الأسئلة على المعلمة.					
		33. تتطوع لمساعدة زميلاتك في الأنشطة المختلفة.					
		34. تبادر للقيام بأدوار مختلفة داخل الصف.					
11	تحمل المسؤولية	35. تعتمد على ذاتها في إنجاز المهمات.					
		36. تحرص على إنجاز المهام الموكلة اليها.					
		37. تبذل كل ما بوسعها لتحقيق الهدف من المشروع.					

ملاحظات :

Appendix (3)
Referee Committee

1-Achievement test 2- Observation Card

No	Name	Qualification	Institute	1	2
1	Dr. Jaber I. Abo Shawish	PhD Linguistics/ Assistant	Al Quds Open University	√	√
2	Dr. Basel Skik	PhD Methodology	Al Azhar University	√	√
3	Dr. Dawud Helles	PhD Education	Islamic University		√
4	Dr. Salah Al Naqa	PhD Education	Islamic University		√
5	Dr. Fayez Shaladan	PhD	Islamic University		√
6	Dr. Sulaiman Al Mzayen	PhD	Islamic University		√
7	Dr. Ibrahim Shiekh Eid	PhD Methodology	Islamic University		√
8	Mr. Marwan Hamad	M.A	Islamic University		√
9	Mr. Abd Al Majid Al Ashgar	M.A Methodology	Islamic University		√
10	Dr. Naima Al Modallal	PhD Methodology	UNRWA	√	√
11	Dr. Amjad Joma	PhD Education officer	NRC		
12	Mr. Alaa Harb	M.A Methodology	UNRWA	√	√
13	Mrs. Maha Barzaq	M.A Methodology/ Education Officer	NRC	√	√
14	Mrs. Suha Dawud	M.A Methodology	UNRWA	√	√
15	Mr. Ashraf Fuda	B.A. Education	UNRWA	√	
16	Mrs. Naima Ali	M.A Education Specialist	UNRWA	√	√
7	Mrs. Faten Safi	B.A Education Specialist	UNRWA	√	√
18	Mrs. Iman Balousha	M.A Deputy School Principal	UNRWA	√	
19	Mrs. Iman Abu Shanab	M.A Teacher	UNRWA	√	

Appendix (4 - A)
A Sample of Lesson Plan (teacher's guide)

Project (1)

Topic : At the Market	
Project Title : Favourite Food Questionnaire	
Objectives: <p style="text-align: center;">At the end of this project students are expected to:</p> <ul style="list-style-type: none"> • identify the vocabulary of food. • use the food words to express their likes and dislikes. • describe others' likes and dislikes. 	
Vocabulary: apples – figs – onions – melons – oranges – carrots – tomatoes – bananas – grapes – potatoes – food – chips – fish – biscuits – chicken – ice cream – meat – lemons	
Structures: <p style="text-align: center;">I like ☺ I don't like</p>	
Strategies : <ul style="list-style-type: none"> • Group work • Pair work • Brain storming 	
Time : <p style="text-align: center;">Six sessions among 2 weeks</p>	
Materials :	
<ul style="list-style-type: none"> ▪ Pictures of food ▪ Papers ▪ Pens ▪ Posters 	<ul style="list-style-type: none"> ▪ Scissors ▪ Glue ▪ Flip chart ▪ Work sheets

Step	Teacher Role	student Role
Procedures :		
<p>Define Problem and Task</p>	<p><u>Warming up:</u></p> <ul style="list-style-type: none"> Teacher displays a picture of several types of food at the market. <p><u>Revision:</u></p> <ul style="list-style-type: none"> Teacher distributes work sheet No. (1). Teacher checks the answers. <p><u>Presentation:</u></p> <ul style="list-style-type: none"> Teacher presents the new words using real objects, flash cards and word cards. carrots – onions – tomatoes – potatoes Teacher draws ☺ I like..... I don't like Teacher discusses the main topic of the project with students. Teacher discusses the goals of the project. 	<ul style="list-style-type: none"> Students describe what they can see in groups. Students say the words they know in English and the new words in Arabic. Students match each word with its picture using work sheet No. (1). Students play a matching game Students work in pairs to express themselves. Students share the discussion with the teacher. Each group write the goals of the project with the help of the teacher.
<p>Develop a Plan</p>	<ul style="list-style-type: none"> Teacher distributes a simple project proposal form that includes the objectives, production type, tie schedule and the role of each member. Teacher divides the class in to 7 groups of 5 members. Teacher gives students their tasks and appoints a leader for each task. Teacher discusses the project plan with the group members. 	<ul style="list-style-type: none"> Students work in groups to write the plan with the help of the teacher. - Student 1: design the questionnaire. - Student 2&3: go outdoors to collect information. - Student 4: analyse the information to describe others. - Student 5: present the project.

Step	Teacher Role	student Role
Investigate and Implement	<ul style="list-style-type: none"> • Teacher displays a poster as a model of the questionnaire on the board and starts to paste the pictures and words of food. • Teacher helps and monitors. • Teacher discusses the next step. 	<ul style="list-style-type: none"> • Each group has the materials which they need to design the questionnaire. • Groups start to design their own questionnaires by the help of the leader.
Collect Information	<ul style="list-style-type: none"> • Teacher asks the leader of this task to implement the questionnaire on a member of his group • Teacher encourages students. 	<ul style="list-style-type: none"> • Student 1: What food do you like? • Student2: answers. • Student1 records the answers ticking in front the favourite food. • The leader of the second task implements the questionnaire on other persons. For example, his mum, dad, teacher or headmaster.
Provide Feedback	<ul style="list-style-type: none"> • Teacher asks student4 from each group to analyse the information. • Teacher distributes empty posters. • Teacher gives sentences as examples. • Teacher goes around checking and helping. 	<ul style="list-style-type: none"> • Students come back to the classroom with data they have collected • Students summarize all the information related the previous task with the teacher. • Students write sentences describing the person they have asked
Present the Project	<ul style="list-style-type: none"> • Teacher monitors and gives help when necessary. • Teacher encourages students. 	<ul style="list-style-type: none"> • Each group prepares its poster. • Student5 from each group goes out to present the project. • The leader of this task describes the likes and dislikes using the questionnaire they ticked and the poster they wrote.

Step	Teacher Role	student Role
Reflect up and Evaluation	<ul style="list-style-type: none"> • Teacher gives a work sheet. • Teacher checks the answers. 	<ul style="list-style-type: none"> • Students discuss the findings. • Students do the work sheet as a summative evaluation.

Project (2)

Topic : At the zoo	
Project Title : Animal zoo	
Objectives: <p style="text-align: center;">At the end of this project students are expected to:</p> <ul style="list-style-type: none"> • use the words of animals at the zoo. • Describe the animals at the zoo using colours. • Describe the animals at the zoo using fast / slow. 	
Vocabulary: giraffe – monkey – elephant – tiger – fox – snake – big – small – fast – slow – orange – white – black – brown – green – grey – yellow – blue.	
Structures: <p style="text-align: center;">I can see a snake It's small and slow It has no legs</p>	
Strategies : <ul style="list-style-type: none"> • Group work • Pair work • Brain storming 	
Time : <p style="text-align: center;">Six sessions among 2 weeks</p>	
Materials :	
<ul style="list-style-type: none"> ▪ Pictures of animals ▪ Hard papers ▪ Pens ▪ Hard cartons 	<ul style="list-style-type: none"> ▪ Scissors ▪ Glue ▪ Toys of animals ▪ Work sheets

Step	Teacher Role	student Role	Time
Procedures			
<p>Define Problem and Task</p>	<p><u>Warming up:</u></p> <ul style="list-style-type: none"> • Teacher displays a picture of different animals. <p><u>Revision:</u></p> <ul style="list-style-type: none"> • Teacher revises the colours using flash cards. • Teacher distributes work sheet No. (5). • Teacher checks the answers. <p><u>Presentation:</u></p> <ul style="list-style-type: none"> • Teacher presents the new words using toys of animals, flash cards and word cards. fox – giraffe – elephant – monkey – snake – tiger. • Teacher present an example of one animal: <ul style="list-style-type: none"> - I can see a snake - It's small - It's slow - It has no legs • Teacher discusses the main topic of the project with students. • Teacher asks if they have ever seen any of these animals. • Teacher asks students which of these animals are bigger or faster than others. • Teacher discusses the goals of the project. • Teacher uses a poster to write the goals discussed. • Teacher tells them that they are going to search about this information to achieve the goals. 	<ul style="list-style-type: none"> • Students mention the animals they know in English and the new words in Arabic. • Students match each word of colours with its picture using work sheet No. (5). • Students play a matching game • Drilling class/ groups/ pupils. • Students share the discussion with the teacher. • Students talk about themselves and about their memories. • Students can use their mother tongue to discuss the goals. • Each group write the goals of the project with the help of the teacher. 	

Step	Teacher Role	student Role	Time
Develop a Plan	<ul style="list-style-type: none"> • Teacher distributes a simple project proposal form as work sheet 6 that includes the objectives, production type, tie schedule and the role of each member. • Teacher divides the class in to 7 groups of 5 members. • Teacher gives students their tasks and appoints a leader for each task. • Teacher distributes a picture of an animal for each student to search about as a homework task. • Teacher discusses the project plan with the group members. 	<ul style="list-style-type: none"> • Students work in groups to write the plan with the help of the teacher. - Student 1: a picture of a monkey. - Student 2: a picture of a giraffe. - Student 3: a picture of an elephant. - Student 4: a picture of a tiger. - Student 5: a picture of a fox. • Students search about these animals as a homework task. 	
Investigate and Implement	<ul style="list-style-type: none"> • Teacher shows a model of an animal zoo. • Teacher distributes work sheet 8. • Teacher checks the answers. • Teacher helps and monitors. • Teacher discusses the next step. • Teacher distributes cards of animals' names. • Teacher monitor and give help when necessary. 	<ul style="list-style-type: none"> • Each group has the materials which they need to design the animal zoo. • Students match each word with its picture. • Groups start to design the zoo by the help of the leader sticking the animals on the hard cartons. • Every student has to stick the name of the animal beside it. • Students complete the decoration of the animal zoo sticking some trees. 	

Step	Teacher Role	student Role	Time
Collect Information	<ul style="list-style-type: none"> Teacher asks students among the groups to exchange the information they have collected about the animals. Teacher encourages students. 	<ul style="list-style-type: none"> Each student talks to his/her friend about the animal he/she has searched about describing it if it is small or big, fast or slow and how many legs it has 	
Provide Feedback	<ul style="list-style-type: none"> Teacher says a description of an animal. Teacher asks: which animals have 4 legs? Teacher asks: which animals can be brown? Teacher goes around checking and helping. 	<ul style="list-style-type: none"> Students guess what is it pointing on the animal zoo in front of them. Students mention giraffe, elephant, fox and tiger. Students mention fox and giraffe. Students work in pairs to practice saying the information about animals. 	
Present the Project	<ul style="list-style-type: none"> Teacher monitors and gives help when necessary. Teacher encourages students. 	<ul style="list-style-type: none"> Each group prepares its model and they choose one student to go out and present the project. The leader of this task describes the animal zoo with the help of his/her group members. 	
Reflect up and Evaluation	<ul style="list-style-type: none"> Teacher gives a work sheet. Teacher checks the answers. 	<ul style="list-style-type: none"> Students discuss the project findings. Students do the work sheet (9) as a summative evaluation. 	

Project (3)

Topic : Jobs, food and animals	
Project Title : Dictionary	
Objectives: At the end of this project students are expected to: <ul style="list-style-type: none">• identify the vocabulary of jobs, food and animals.	
Vocabulary: apples – figs – onions – melons – oranges – carrots – tomatoes – bananas – grapes – potatoes – food – chips – fish – biscuits – chicken – ice cream – meat – lemons. giraffe – monkey – elephant – tiger – fox – snake – big – small – fast – slow – orange – white – black – brown – green – grey – yellow – blue. farmer – doctor – nurse – teacher – policeman – dentist – driver – family – mum – dad – brother – sister – aunt – uncle – cousin – grandfather – grandmother.	
Strategies : <ul style="list-style-type: none">• Group work• Pair work• Brain storming	
Time : Six sessions among 2 weeks	
Materials :	
<ul style="list-style-type: none">▪ Pictures of vocabulary▪ Hard papers	<ul style="list-style-type: none">▪ Scissors▪ Glue▪ Work sheets

Step	Teacher Role	student Role
Procedures :		
<p>Define Problem and Task</p>	<p><u>Warming up:</u></p> <ul style="list-style-type: none"> • Teacher greets students. • Teacher draws 2 circles writing the words: food and animals. • Teacher distributes the work sheet (10). <p><u>Revision:</u></p> <ul style="list-style-type: none"> • Teacher displays different word cards • Teacher distributes the work sheet (11). • Teacher checks the answers. <p><u>Presentation:</u></p> <ul style="list-style-type: none"> • Teacher presents the new words using real objects, flash cards and word cards. <p>farmer – doctor – nurse – teacher – policeman – dentist – driver</p> <p><u>practice:</u></p> <ul style="list-style-type: none"> • Teacher says the name of the job. • Teacher distributes the work sheet (12). • Teacher checks. • Teacher discusses the main topic of the project with students. • Teacher discusses the goals of the project. • Teacher tells them that they are going to make a dictionary to categorize all these words. 	<ul style="list-style-type: none"> • Students say as many words as they can, related to the brainstorming words. • Students write the words they know in the sheet. • Students read and classify if it is food or animal • Students classify the words • Students repeat C/G/P. • Students act it. • Students work in pairs to practice the activity. <ul style="list-style-type: none"> - Student1 says the word - Student2 act it. • Students write the words below pictures. • Students share the discussion with the teacher. • Each group write the goals of the project with the help of the teacher.

<p>Develop a Plan</p>	<ul style="list-style-type: none"> • Teacher distributes a simple project proposal form as work sheet (13) that includes the objectives, production type, tie schedule and the role of each member. • Teacher divides the class in to 7 groups of 5 members. • Teacher distributes the roles among the students of each group. • Teacher discusses the project plan with the group members. 	<ul style="list-style-type: none"> • Students work in groups to write the plan with the help of the teacher. • Students discuss the plan in groups.
<p>Investigate and Implement</p>	<ul style="list-style-type: none"> • Teacher shows a model of a complete dictionary on the board. • Teacher distributes the work sheet (13). • Teacher checks. • Teacher helps and monitors. • Teacher discusses the next step. 	<ul style="list-style-type: none"> • Each group has the materials which they need to design the dictionary. • Groups start to design their own dictionaries by the help of the leader. • Students start to paste the pictures on the hard papers and leave a space to stick or write the word. • Students match. • Students complete the decoration of the dictionaries writing the title and colouring the first paper.
<p>Collect Information</p>	<ul style="list-style-type: none"> • Teacher asks students to exchange the information among groups • Teacher encourages students. 	<ul style="list-style-type: none"> • Each group tells the next group about its pictures and words.

Appendix (4 -B)
Work sheets (student guide)

Work sheet (1)

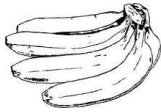
Match words with pictures:



bananas



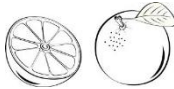
carrots



oranges



onions



grapes



biscuits

Work sheet (2)
Project proposal form

Objectives:

1.
2.
3.

Production type:

Time:

The task of each member:

S (1):

S (4):

S (2):









S (5);

S (3):

Work sheet (3)

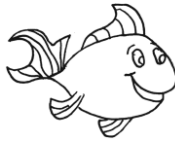
What food do you like?

Name:

picture	word	like	don't like
	chicken		
	tomatoes		
	onions		
	chips		
	fish		
	biscuits		
	carrots		
	potatoes		

Work sheet (4)

Choose and complete:



I like, and

I don't like, and

Work sheet (5)

Match the colour words with pictures:

red



blue



yellow



white



green



black



Work sheet (6)

Project proposal form

Objectives:

4.
5.
6.

Production type:

Time:

The task of each member:

S (1):

S (2):

S (3):

S (4):

S (5);

Work sheet (7)

Look and choose:

1. I can see a (giraffe – tiger)

It is (fast – slow)

It is (big – small)

It has (2 – 4 – no) legs.



2. I can see a (giraffe – monkey)

It is (fast – slow)

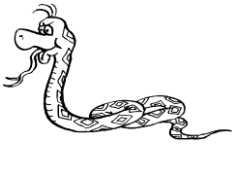
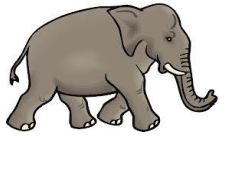


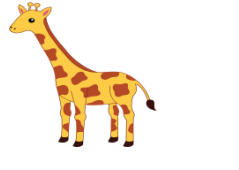
It is (big – small)

It has (2 – 4 – no) legs.



Work sheet (8)

Look and choose:

				
monkey	elephant	lion	monkey	tiger
fox	giraffe	tiger	elephant	fox
snake	fish	snake	cat	giraffe

Work sheet (9)

Tick ✓ or × :

1. The tiger is fast ()
2. The elephant is orange ()
3. The snake has no legs ()
4. The fox is green ()
5. The monkey has 4 legs ()

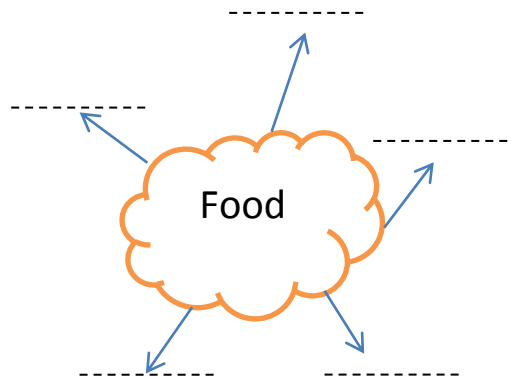
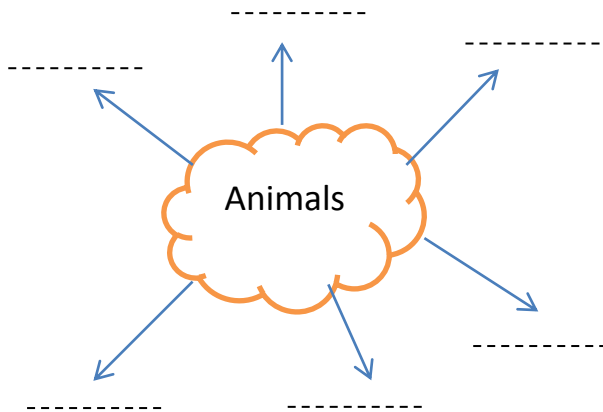
Puzzle:

It is big and slow. It is grey. It has 4 legs.

It is a

Work sheet (10)

Complete:



Work sheet (11)

Classify the words:



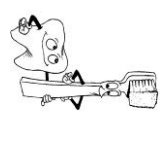


(fox – chips – potatoes – elephant – carrots – snake)

food	animals
.....
.....
.....

Work sheet (12)

Write the correct words:

(dentist – doctor – nurse – driver – teacher – policeman)

				
.....

Work sheet (13)

Project proposal form

Objectives:

3.
4.
5.

Production type:

Time:

The task of each member:

S (1):

S (2):

S (3):

S (4):

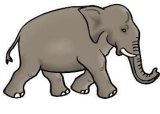








S (5):

Work sheet (14)

Odd one out:

1. Doctor – nurse – tiger – teacher
2. Fox – figs – chicken – chips
3. Lemons – driver – oranges – grapes
4. Policeman – elephant – giraffe – snake

Write the missing letters:

	...lephan t		...eat		...eacher
	...onkey		...otatoe s		...entist
	...iraffe		...arrots		...olicema n

Appendix (5)
Photos of the experiment



Photo (1)
Students designing the favorite food questionnaire



Photo (2)
Students designing the favorite food questionnaire



Photo (3)
Students (boys) preparing for presenting the first project



Photo (4)
Students preparing for presenting the first project



Photo (5)
Students designing the animal zoo



Photo (6)
Students sticking the names of the animals' cards



Photo (7)
Students sticking the names of the animals' cards



Photo (8)
Students designing the third project (dictionary)



Photo (9)
Students presenting the third project (dictionary)