



## Using project-based learning in teaching geography to develop some life skills of preparatory stage pupils

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### Abstract

This study aims at examining the effect of using project-based learning on developing second-grade preparatory students' life skills in Social Studies. A sample of (60) female students from Jihan El-Sadat Preparatory School for Girls in Dakahlia governorate was divided equally into controlled and experimental groups. For data collection, a life skills situations test was developed and implemented. The results revealed that there is a statistically significant difference at the level (0.05) between the mean scores of the experimental group students who studied using the project-based learning strategy and the mean scores of the controlled group students who used the traditional method in the post-application of the life skills situations test which indicated the effectiveness of using project-based learning in developing life skills in geography for preparatory stage pupils. The study recommends training teachers on using and incorporating the project-based learning strategy, as well as using a set of teaching strategies that help learners acquire life.

### Keywords

Life Skills, Geography, Project-based Learning, Social Studies

## Introduction

The 21st century has witnessed an explosion of knowledge and amazing technological progress that has led to the diversification of branches of science and knowledge as well as the multiplicity of disciplines that left imprints on all different aspects of life. This scientific and technological progress has been accompanied by the emergence of some environmental, social, and ethical problems that represent a serious challenge to individuals and people. Because of the negative effects it may have on societies which requires providing learners with the knowledge and skills that enable them to face these problems and develop their awareness of its implications whether on the individual or community that helps them to face their life and daily problems, and to coexist effectively with this fast and changing world.

Social studies subject is one of the academic courses that qualify learners to live and get adapted to their society, and its events, issues, and phenomena. Also, the scientific and technological developments and rapid changes in all fields, geography, as social science, is now seen as a renewed knowledge system, the study of which requires certain scientific and intellectual skills. (Ibrahim, 2016)

Hence, the effective teaching of social studies is not just for providing learners with facts and information. Rather, it should tend to develop many skills including life skills that are among the most important of these skills, and today they have become a necessity for the life of the individual in society as they help him to adapt to the changes of the era in which he lives and coexists with him. It also helps him to face daily problems and interact with life. And possessing these skills is what enables an individual to live better; this is the difference between an individual who has life skills and an individual who does not have them. Hence, “it clarifies the importance of developing life skills in the initial stages of growth” (Albagoury, 2016, p. 51).

Project-based learning is a learner-centered learning strategy and educational studies have confirmed its impact and effectiveness in developing multiple skills of learners among the most important are cooperative work skills, learning, communication skills, and critical thinking skills. The implementation of projects depends on working in small groups in which pupils exchange information and opinions and enable them to communicate with colleagues and experts with similar interests. It is their responsibility to search for and formulate information, and this helps them to “develop creative and critical thinking skills” (Mohamed, 2013, p. 372).

Many studies emphasized the importance of project-based learning (e.g. El-Adawy, 2014; Harris, 2015; Al-Saadi, 2017; and El-Mawlid, 2019) as a teaching method through which teachers guide students to the steps of solving the problem, including identifying the problem, developing steps, evaluating the plan towards reality and thinking about it during the design, and implementation process of the project.

Al-Lakan and Mohamed (2001) define life skills as any work that the learner does in his daily life in which he interacts with people, institutions, things, machines, and equipment, and therefore these interactions require the learner to be proficient in basic skills. Youssef (2017, p. 25) defines life skills as “a set of skills that pupils acquire as a result of their interaction” with the environment around them, enabling them to keep abreast of developments and changes that occur in society and solve problems they face in their daily lives. The researcher defines procedural project-based learning strategies as: "Designing a set of educational situations with specific goals related to the content of the unit (Residents of our Arab homeland) and suitable for the pupils, in the form of activities that allow the cooperation and interaction of the students during their practice, to develop the necessary life skills for them."

The researcher defines life skills procedurally as a set of skills necessary for pupils in the second year of middle school which is acquired through the use of project-based learning, and these skills help them to manage their lives successfully and to adapt within the community.

## **Literature review**

### ***The project-based education strategy***

Project-based education appeared at the beginning of the twenty-first century, and its use was limited to practical matters, handicrafts, and agriculture until Kilpatrick introduced it to schools as a method of teaching for pupils. Curricula in the form of intentional projects related to the lives of pupils stemming from their needs and desires, and because of Clapatrik's efforts to "simplify and explain this method for learners. It led to its spread in modern schools" (Kurubacak, 2007, p. 422)

Anna et al. (2012) and Barakat (2013) list the objectives of the project-based learning strategy as follows:

1. Increasing students ' motivation towards learning
2. Developing students ' ability to apply the information and knowledge acquired in the real world
3. Improving students' competence in social, oneness, and emotional aspects
4. Making the students more independent to become lifelong learners
5. Enhancing achievement of the students
6. Helping the learner to make an integrative link between the different study subjects, and an integrative link between the academic subject and real life

7. Encouraging learners become teachers to others by explaining the steps of undertaking the project

Additionally, El-Fouly (2022) highlights the main components of project-based learning as follows:

1. Meaningful content as the core of the project focuses on students learning basic important knowledge and skills.
2. 21st-century competencies where projects develop students' competence to deal with the world today, such as solving problems, critical thinking, cooperation, communication, and creativity,
3. In-depth questioning where students participate in asking questions and searching for answers.
4. Raising issues because the content of the project focuses on issues and open-ended questions that push students to investigate.
5. The need to know where the students see the need to acquire and understand knowledge, apply the acquired skills, and then postpone answering the raised questions.
6. Freedom and testing: where projects provide the opportunity for pupils to do some tests such as how to work and time management.
7. Feedback: where projects include processes to help pupils give feedback on their work.

Many educators (e.g. Gokhan & Omer, 2011; El-Dabba, 2014; Chiang & Lee, 2016) confirm that project-based learning strategy highly affects students' academic performance and

other motivational aspects. Accordingly, the advantages of project-based learning can be listed as follows:

- It has a significant impact on activating the learning process as the student formulates the project objectives, plans for it, and organizes the procedures for its implementation, to achieve those goals. Thus, learners become able to plan, self-regulate his learning, manage time, and control their behaviors and emotions
- It provides the opportunity to train pupils on cognitive skills (Planning - Implementation - Evaluation) makes students able to acquire self-knowledge and take responsibility for their learning
- It promotes meaningful learning as students become accustomed to linking vision and action, thought and practice, and linking and integrating information, and ideas.
- It develops social and emotional skills as PBL improves students' ability to interact and cooperate with learners and learners with teachers during discussing knowledge and exchanging information. It also develops skills of cooperative learning, leadership, teamwork, social communication, and conflict resolution which allow the formation of social relationships among students and increase students ' motivation toward learning.
- It increases the students' curiosity, sense of responsibility, self-confidence, self-reliance, and love of work.
- It provides an opportunity for learners to achieve themselves by giving them individual or cooperative projects in partnership with the work group.
- It encourages individualization of learning and taking into account individual differences among learners

Many studies have proven the importance of project-based education and recommended the necessity of it within studying curriculum. El-Sherbiny's study (2009) recommended including projects in science subjects at the basic educational stage, and employing project-based learning in the applied comprehensive assessment system to benefit from the projects that were prepared. Moreover, Mohamed's study (2013) recommended designing electronic portfolio according to project-based learning to develop critical thinking skills.

Abdel-Aal's study (2016) recommended training teachers to use project-based education in teaching, taking into account the needs, abilities, and tendencies of learners in choosing projects, methods and evaluation as incorporating projects in curricula provides opportunities for students to practice solving- problem- skills and to encourage them to think and learn effectively. Similarly, Amin and Al-Dawoud (2018) recommended training teachers on utilizing PBL as it increases educational attainment and develops many different learning outcomes that students need in their lives and environment.

### *Life skills*

Life skills are essential and indispensable for a learner as they not only satisfy his basic needs of survival but for the continuation of progress and the development of ways of living within society. Therefore, life skills have received attention at the global and Arab levels which led to the multiplicity of definitions that I dealt with as he defined them (Hegner, 1992) as a set of skills related to the environment in which the learner lives and the knowledge, values, and attitudes related to them that he learns intentionally and organized through a set of activities and applications, and intended to build his integrated personality so that he can assume responsibility and deal with daily life successfully as a good individual.

### *Classification of life skills*

There are many classifications of life skills, but there is no one specific classification, but these skills are determined by knowing the needs and aspirations of learners, as well as according to the problems that occur when students do not achieve the behaviors expected from them. Perhaps, the most general and comprehensive classification of these classifications is that of the World Health Organization (1993). In its annual report, there are ten basic skills for the learner that are: decision-making skills, problem-solving, creative thinking, critical thinking, effective communication, interpersonal relationships, self-awareness, empathy, coexistence with emotions, and coexistence with pressures. Albagoury (2016) classified life skills into the skill of preserving the environment, the skill of solving problems, the skill of making- decisions, the skill of being within daily life, and the skill of determining the direction of daily life.

### *Characteristics of life skills:*

Imran and Sobhi (2001, p. 14) pointed out that life skills are characterized by a set of characteristics, including:

- Diversity to include all material and non-material aspects related to the methods of satisfying the learner's needs and the requirements of his interaction with life and its development.
- It varies from one society to another according to the nature of each society and the degree of its progress. It also varies from one period to another.
- Depends on the nature of the reciprocal relationship between the learner and society as well as the degree of influence of each one on the other.

- It aims at helping the learner to successfully interact with life and to develop ways of living life.

Additionally, Allam (2009, p. 63) identified a set of characteristics that distinguish life skills including:

- A developmental process that is learned over time through a combination of learning and practice. It differs from knowledge in that it requires work and action with a degree of efficiency.
- Diverse and includes both material and non-material aspects related to the methods of satisfying the needs of individuals according to their needs and requirements of their interaction with life and its development.
- It varies from one society to another according to the nature of each society and thus it is affected by both time and place.
- It must be learned at an early age and strengthened with exercise and repetition.
- Depends on the nature of the relationship between each of the learners and society as well as the degree of influence of each one on the other.

Hence, it is apparent that one of the most important characteristics of life skills is that they are cumulative, connected, diverse, and interconnected. The sum of the impact of the surrounding environment, family, and school varies from one society to another, according to the nature of each society. Thus, it is affected by both time and place. The learner was able to coexist and adapt to the difficulties of the surrounding environment.

### *Importance of life skills*

Life skills are one of the most necessary and urgent requirements for the learner to adapt to the changes of the era in which he lives. Attia (2007, pp. 61-62) explained that life skills are of great importance in general and in social studies in particular, and this can be clarified as follows:

- It makes the individual capable of healthy interaction with others as well as the environment and society.
- Empowering the individual with life skills that make him proud and self-esteemed.
- Helps the individual to absorb and keep pace with modern technology.
- It gives the learner direct experience, through direct interaction with people and phenomena, gives the learner meaning, and provides excitement and marketing for their connection to their reality.
- It gives the individual the ability to take responsibility and preserve the skills he has acquired.
- Life skills help the student to modify his behavior in everyday situations.

### *Factors of acquiring life skills*

Khalil and El-Baz (1999, p. 89) pointed out that the learner's acquisition of life skills is affected by many factors, namely:

- Supportive relationships: that is, the presence of what supports the acquisition of skills, and the absence of these supportive relationships makes the learner tend to neglect the skill, and the presence of the supporter positively affects learning the skill.

- Models: The strength or weakness of the skill is affected by the learner's observation of models that perform that skill.
- Reward sequence: Encouragement, praise, and tenderness are the basic rewards that help in making life skills.
- Instructions: Most of the instructions for making life skills are acquired at home or from the child's questions to his parents. There are instructions for studying and maintaining health which should be had correctly in school.
- Opportunity: Reliance on others, due to difficulty in mastering the skill. So, pupils must be allowed to practice the skill.
- Interaction with others: The learner's learning of the skill may be beneficial or harmful, depending on the nature of the skill and the learner.
- Thinking skills: they contribute positively to the acquisition of basic skills.
- Gender: Gender affects the acquisition of certain quality-of-life skills.
- Culture and the presence of challenges facing the learner and the social level.

### *The teacher's role in life skills*

Zahran and Maher (2006, p. 34) made a basis that the teacher should take into consideration while teaching primary school students to develop life skills; it is coordination with the subjects taught by the student and the actual application of some topics to life situations, as professionally training students to solve problems and express their opinions and assigning pupils to summarize life sports information.

In the context of the interest in life skills, many previous studies were conducted. A study by Attia (2007) assured the effectiveness of an activity-based study unit in social studies in

developing life skills for fourth-grade students. Similarly, Zaree (2008) revealed the effectiveness of a training program for Social Studies student teacher in develop some life skills and awareness of the educational challenges of globalization. Moreover, Malad (2013) found that using social websites in social studies enhanced pupils' political awareness and some life skills. Likely, Albagoury (2016) found that using electronic map in social studies developed primary school pupils' life skills. A study by Tawfiq (2016) identified the effectiveness of a unit based on educational computer programs in social studies to develop life skills for primary school pupils.

A review of literature of research that deals with life skills suggests the following conclusions:

- Previous studies and research emphasized the importance of life skills and the need to include them in school curricula in general and social studies in particular; by their nature and considering that they are one of the main objectives that help the learner to manage his life successfully.
- The multiplicity of objectives of the studies that dealt with life skills, some of them were concerned with evaluating the curricula, in the light of those skills, and the others tried to measure the impact of some programs on their development, in addition to the variation of student samples, whether by identifying the extent of their possession of life skills or the extent to which the curricula deal with them.
- Most of the previous studies and research presented a classification of life skills that differed from one study to another, according to the nature of the specialization, the surrounding environment, and the age stage of the learners. These studies were used when building a list of life skills related to social studies curricula.

- Emphasis on building programs aimed at developing pupils' life skills and the importance of including life skills in the school curricula, to raise good citizens capable of dealing with life, and this is what was indicated by some studies.
- Previous studies agreed that there is a general decline in the level of life skills of learners at different stages which helps them to face some life situations related to their environment, such as the study (Attia, 2007) and the study (Tawfik, 2016).
- Confirmation of previous studies on the importance of using educational situations to develop some life skills by using effective educational strategies with good employment. This was indicated by the study of each, (Masoud, 2002; Zaree, 2008; Youssef, 2017; Tawfiq, 2016; Elbarbari et al., 2022).

### *Research problem*

The feeling of the problem of the current research comes from several sources, namely:

1. The researcher noticed through his teaching work that there is difficulty for learners in acquiring life skills when studying the social studies curriculum for the second grade of middle school. This difficulty comes from conveying the information as it is in the textbook. So, the learners receive and memorize it as it is. Also, with the increased number of pupils in the class and a large number of subjects in the course, and the lack of sufficient time for interaction and discussion between the teacher and his pupils, and between the pupils themselves, it is necessary to pay attention to the use of project-based learning in the curriculum of the second year of middle school.
2. The researcher conducts unstructured interviews with teachers and parents. When asked about the extent to which the preparatory stage pupils acquired life skills, they

indicated that there is a noticeable decline among the preparatory stage pupils in life skills; this is because the currently used teaching methods do not help in developing life skills. And that the teaching methods mostly used focus only on memorization and retrieval and neglect the development of life skills. They also pointed out the necessity of developing life skills among preparatory-stage pupils. Through the researchers' numerous meetings with pupils, they see that geography is a difficult subject, due to its large amount of information. It appears to them that geography is a redundant subject and useless. It is also difficult to be explained and understood. As a result of this, students dislike it.

3. Conducting an exploratory study on a random sample of (30) female students in the second year of middle school at Jihan Sadat School for Girls to know their level of life skills Where a life skills test prepared by the researcher was applied. The test consists of (25) questions and the results were as follows in Table (1).

**Table 1**

*An exploratory study on a random sample at Jihan El-Sadat Preparatory School for Girls in Mit Ghamr*

Level	High	Average	Weak	Total
The ratio	100- 80 %	80 – 50 %	less than 50%	100%
the number	6	7	17	30

It is clear from the previous table (1) that the learners' low level of life skills

4. As well as keeping pace with modern trends in the teaching of social studies which aims at developing life skills, such as (decision-making, using maps in daily life, working in a group, preservation of the environment, and positioning in life skills).
5. The results of many previous studies and research that confirmed the existence of weakness in life skills, such as the study of Mohamed (2013), AlBagoury (2016), Ibrahim (2016), Tawfiq (2016), Youssef (2017) and Abdel Halim (2020), where it recommended the necessity of:
  - Paying attention to the development of life skills and including them within the objectives of teaching social studies at all educational levels.
  - Providing pupils with the necessary life skills to deal with problems or natural and human phenomena.
  - Providing an appropriate learning environment that makes the learner a positive participant in the educational process.
6. Many previous studies and research indicated the positive and effective importance of project-based learning for pupils, including the studies of Barakat (2013), Anna et al. (2012), and Harris (2015). Based on the foregoing, the current study aims to try to identify the effectiveness of using project-based learning in teaching social studies to develop some life skills for preparatory-stage pupils.

## **Methodology**

The appropriate design of this research is the quasi-experimental design of the research where the experimental and control groups were selected. Then (pre/post) was applied to

evaluate the life skills of the experimental and control groups where the experimental group is exposed to the application of the reformulated unit, in the light of project-based learning. The control group is traditionally taught. By comparing the results of the statistical analysis for both the pre-and post-applications of the two groups, the results of the independent variable (project-based learning) were reached with the presence of a control group.

**Table 2**

*Experimental design of the current research*

<b>research group</b>	<b>Tribal application on both groups</b>	<b>Experimental processing</b>	<b>Post application on both groups</b>
experimental group	life skills test	Teaching the paraphrased unit in the light of project-based learning	life skills test
control group	life skills test	Teaching the unit, the traditional way	life skills test

The sample of the research was limited to learners in the second preparatory grade from Jihan El-Sadat Preparatory School for Girls in the Mit Ghamr Educational Administration, Directorate of Education in Dakahlia. Most absent pupils were excluded in its final form, the sample consisted of (60) female pupils from the number of female pupils in two classes who were randomly selected in 2021/2022. Then the sample was randomly distributed into two groups: An experimental group of (30) pupils and a control group of (30) pupils.

***Research problem and questions***

The problem of the current research is represented in the poor level of some life skills among second-year middle school students, so the current research seeks to reveal the effectiveness of using project-based education in teaching geography to develop some life skills.

The research problem was represented in the following main question: How can life skills be developed for second-grade preparatory students using project-based learning in the geography curriculum?

*The following sub-questions generate from this question:*

1. What is the form of the geographic unit that was formulated using project-based learning to develop some life skills for second-year preparatory pupils?
2. What are the life skills to be developed for second-year preparatory pupils?
3. What is the effectiveness of the geographical unit formulated using project-based learning in developing life skills for second-year preparatory pupils?

### ***Research hypothesis***

1. There is no statistically significant difference at the level ( $\alpha \geq 0.05$ ) between the mean scores of the experimental group pupils on the pre-and post-applications of the life skills attitude test as a whole.
2. There is no statistically significant difference at the level ( $\alpha \geq 0.05$ ) between the mean scores of the experimental group pupils on the two applications, pre, and post, to evaluate life skills attitudes for each skill separately.
3. There is no statistically significant correlation at the level ( $\alpha < 0.05$ ) between the scores of the experimental group pupil's post-test on the life skills attitudes test.

### ***Research tools and materials***

1. A list of life skills that can be developed in the second year of middle school in the social studies curriculum (designed by the researcher).

2. A teacher's guide for teaching the reformulated unit using project-based learning for the experimental group (designed by the researcher).
3. Situations (Mawaqif) test for some life skills (designed by the researcher).

### *Research limitations*

The current research is limited to the following limits:

1. The scientific content that includes my units (Our Arab Homeland "One place, diverse nature", Residents of our Arab homeland "Unity and Diversity") in the social studies curriculum for the second grade of middle school, because through their topics it is possible to develop life skills because they include some data, information, maps, statistical tables, and graphs, which are among the basic components of the reformulated study unit in the subject of social studies.
2. A random sample of (60) preparatory stage pupils, divided equally into two groups: one of them is control and the other is experimental in one of the schools of the administration of Mit Ghamr Educational City in Dakahlia Governorate during the first semester of the academic year (2021- 2022).
3. Developing some life skills related to the content of geography.

### *Research aims*

The current research aims to verify the validity of the hypothesis and answer their questions by knowing:

1. Preparing a list of some life skills for the second-year preparatory stage pupils.

2. Revealing the effect of using project-based learning in the geography curriculum in developing some life skills for second-year preparatory stage pupils.
3. Revealing the correlation between life skills and project-based education.

### *Research procedures*

To answer the research questions, the researcher follows the following procedures:

First: Preparing a list of appropriate life skills for the second year of preparatory stage pupils which can be developed through geography through:

- Review the literature, research, and previous studies to prepare a theoretical study on life skills.
- Presenting the list to the arbitrators and making the necessary adjustments to put it in its final form.

Second: Preparing the research tools and materials represented in:

- A list of the most important life skills (Researcher Preparation).
- Test positions for some life skills (Researcher Preparation).
- A teacher's guide for using the unit. (Researcher Preparation.)
- Then he presented these tools to a group of arbitrators, to make the necessary adjustments and put them in their final form

Third: Selecting the research sample from the second year of preparatory stage pupils:

Fourth: Applying the research tools a priori to the research group.

Fifth: Teaching the reformulated unit to the experimental group.

Sixth: Post-application of tools and materials on the research sample.

Seventh: Monitoring, statistically processing, and interpreting the results.

Eighth: Presenting recommendations and suggestions.

### *Designing research tools*

Attitude test preparation: To prepare for the test, the following steps were taken:

1. Determining the objective of the test: The objective of the attitude test is to measure some of the life skills represented in (Making decisions, time management, proper planning in daily life. Use of maps in daily life. Teamwork) I have a second year of preparatory stage pupils.
2. Formulating the vocabulary of choice: The test items were formulated in the style of multiple tests, which depends on the student's choice of the correct position from among several situations.
3. Determining the system for estimating the test scores: The arbitrators indicated that the test scores are estimated so that the student who chooses the appropriate behavior is given one score while giving zero for the rest of the alternatives.
4. Writing test instructions: The test instructions are placed on a single page. It was taken into account to specify the objective of the test and the method of answering in a clear and easy way
5. Adjust the test to set the test positions. The validity of the test was confirmed by presenting it to a group of arbitrators, to ensure the safety of all (formulation of test vocabulary, the validity of the test, ensuring that the vocabulary is correct, and suitability of the study sample). The test vocabulary has been modified, in light of the judges' opinions. This resulted in the deletion of four questions, bringing the number

of test items to (30) items instead of (34) questions. This step resulted in the following observations:

- Most of the arbitrators agreed on the validity of each of the test items in measuring the skill assigned to it.
- Most of the arbitrators agreed on the clarity and appropriateness of the test instructions and the integrity of the language.
- Most of the arbitrators agreed on the appropriateness of the alternatives for each of the test items.
- The arbitrators requested to amend the alternatives that suggest the answer and the amendment that has been made.

The comments of the judges were addressed by paraphrasing some test vocabulary. The researcher applied the test to an exploratory sample consisting of “30” female pupils from the second preparatory grade at Jihan El-Sadat Preparatory School for Girls affiliated with the Mit Ghamr Educational Administration, Dakahlia Governorate, in the first semester of 2021-2022, to calculate the ease and difficulty coefficients for the test vocabulary. The coefficients of ease and difficulty were calculated. This exploratory experiment aimed at the following:

Ensuring the clarity and appropriateness of the test vocabulary for the level of the pupils: The researcher made sure through the exploratory experimentation of the test that its vocabulary is clear and appropriate to the level of the pupils. Determine test time: The test time was calculated by calculating the average between the time taken by the first student to finish answering the questions and the last student to finish answering. This is illustrated by the following table:

**Table 3**

*Test time*

Fastest student time	Slowest student time	Total	Average
55 minutes	75 minutes	130	65 minutes

Thus, the test time is 65 minutes + 10 minutes for instructions and paper distribution, which is equivalent to approximately two pebbles.

*Calculation of test stability.*

The stability of the test is intended to give almost the same results if it is re-applied to the same sample under the same conditions. The researcher has calculated the reliability coefficient as follows:

*Alpha Cronbach*

Cronbach's alpha stability coefficient was calculated using the SPSS program, through which we calculate the discrimination coefficient for each question as the question whose discrimination coefficient is weak or negative is deleted.

**Table 4**

*Cronbach's alpha coefficient for each skill of the test and the test as a whole*

The dimension	Alpha Cronbach
Making decision	0.76
Time's management	0.59
Proper planning in daily life	0.61
Use of maps in daily life	0.67
Teamwork	0.54
The test as a whole	0.672

Cronbach's alpha coefficient = 0.672, which is an acceptable stability coefficient indicating the stability of the test and its validity for the study

**Table 5**

*Correlation coefficient of the degree of each skill of the test with the total score of the test*

<b>The dimension</b>	<b>correlation coefficient</b>	<b>Significance level</b>
Making decision	0.78	function
Time's management	0.64	function
Proper planning in daily life	0.82	function
Use of maps in daily life	0.73	function
Teamwork	0.67	function

The previous correlation coefficients are acceptable and statistically significant internal stability coefficients. Thus, the researcher has confirmed the validity and stability of the test items, and thus the test has become valid for application to the basic study sample.

*The equivalence of the two study groups*

To verify the equivalence of the two study groups in life skills variable and also to determine the actual levels of these skills among the second preparatory grade students in the two study groups before using the reformulated unit using project-based education, the life skills test was applied directly to the students of the experimental and control groups, and the arithmetic mean and deviation were calculated\* Normative and "t" value - after making sure that the conditions for using the "t" test are met - as shown in Table (6).

**Table 6**

*The value of "t" and its statistical significance for the difference between the mean scores of the pupils of the experimental and control groups in the pre-application of the life skills test.*

<b>Group</b>	<b>size the sample</b>	<b>average</b>	<b>Standard Deviation</b>	<b>Degree of Freedom</b>	<b>Indication level</b>	<b>T Value</b>	<b>indication at the level (0.05)</b>
Experimental	30	7.53	2.75	58	1.00	0.00	Not statistically significant
Control	30	7.53	2.83				

The results of the previous table (6) indicate that the experimental and control groups are equivalent in life skills, as the calculated “t” value is not statistically significant at the degree of freedom (58) and the level of significance (0.05), The data of this table also indicates the low level of the pupils of the two study groups in life skills, as the average scores on the test are very low for each of them.

## **Results & Discussion**

To determine the extent of improvement in the performance of the second-grade preparatory students on the life skills test, the study question was “identifying the effect of using project-based learning in the social studies curriculum to develop some life skills for second-grade middle school students?” To compare the performance of the students of the experimental and control groups on the life skills test before and after using project-based learning with the experimental group, the researcher calculated the averages and standard deviations of the scores of the students of the experimental and control groups in the pre and post applications of the life skills test, and Table (7) shows a summary of that.

**Table 7**

*The averages and standard deviations of the scores of the pupils of the experimental and control groups in the pre-and post-applications of the life skills test as a whole.*

<b>Group</b>	<b>test application</b>	<b>No. of participants</b>	<b>Average</b>	<b>Standard Deviation</b>
Experimental	pre	30	7.53	2.75
	post	30	87.26	6.30
control	pre	30	7.53	2.83
	post	30	25.33	4.25

The researcher also calculated the value of "t" and its statistical significance for the difference between the mean scores of the pupils of the experimental and control groups in the post-application of the life skills test as a whole, and table (8) shows a summary of that.

**Table 8**

*The value of "t" and its statistical significance for the difference between the mean scores of the experimental and control groups in the post-application of the life skills test as a whole.*

<b>Group</b>	<b>size the sample</b>	<b>Arithmetic Mean</b>	<b>standard deviation</b>	<b>Degree Freedom</b>	<b>Indication level</b>	<b>T Value</b>	<b>indication at the level (0.05)</b>
Experimental	30	87.26	6.30	58	0.001	44.61	Statistic
control	30	25.33	4.25			5	

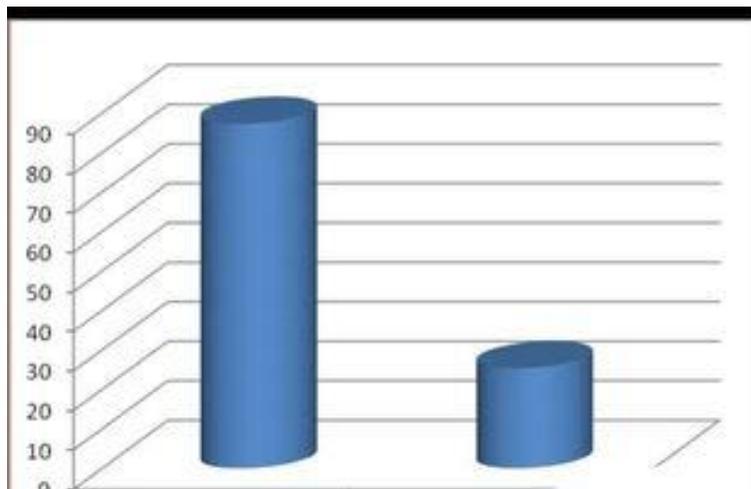
The results of Table (8) indicate that the difference between the mean scores of the pupils of the experimental group and the scores of the pupils of the control group of the study sample on the life skills test as a whole, dimensionally, is a statistically significant difference at the level (0.05), in favor of the experimental group where the calculated "t" value was statistically significant at the level of significance (0.05).

Accordingly, the first null hypothesis of the study was rejected, which states that “there is no statistically significant difference at the level ( $\alpha \geq 0.05$ ) between the mean scores of the experimental group and the control group in the post-application of the life skills test as a whole.”

From the above, it is clear that the independent variable (project-based learning) has a significant effect on the dependent variable (life skills as a whole), but it does not indicate the size of the effect or the degree of the relationship between the two variables. To find the strength of the relationship between the two variables (independent and dependent), the value of (d) was calculated and it was (11.72), and this value ( $<0.8$ , which indicates the strength of the influence of the independent variable (project-based education) on the dependent variable (life skills as a whole), This shows the impact of using the proposed program in practice.

**Fig. 1**

*The mean scores of the pupils of the experimental and control groups on the post-application of the life skills test as a whole*



### *General comments on the research results and their interpretation*

Through what the results showed of the effectiveness of project-based education in developing some life skills, we find that it agrees with the study of Attia (2007), Allam (2009), Barakat (2013), Malad (2013), El-Adawy (2014), El-Dabba (2014), El-Mawlid (2019), Albagoury (2016), Al-Saadi (2017), Youssef (2017), El-Fouly (2022) and other studies. These studies proved the effectiveness of project-based learning for developing some life skills in social studies, and their results indicated the superiority of the experimental group in the post-application over the control group after studying the reformulated unit using project-based learning and the growth of their skills.

Accordingly, the researcher sees that the reformulated unit using project-based learning to develop some life skills in the subject of social studies that the researcher presented to the pupils of the experimental group made the prescribed topics interesting and diverse. It suits their growth and pushes them to questions and dialogues that are consistent with their interests and inclinations. It is related to their experiences and connects them with their reality, and is characterized by ease, clarity, and distance from ambiguity and inertia. Perhaps, this has helped the pupils in their strong desire for knowledge and the ability to plan properly in daily life, teamwork, time management, use of maps in daily life, discussion, decision-making ability, and ability to Forecasting.

This was not provided to the control group which was receiving education limited to written notes to cover the content of the courses, and their lack of dependence on the library and access to various references which hindered their abilities to think and scientific research, and to extract and elicit ideas from multiple sources.

Hence, the effectiveness of using project-based learning in teaching geography is necessary to develop some life skills among the preparatory stage pupils in the experimental group.

Tables (7, 8) proved that there is a difference between the pre-and post-application of the experimental group. It is in favor of the post-application five skills were measured as follows: (making decisions, time management, proper planning in daily life, and locating places in daily life). The results showed a weak level of students in the life skills of the tribal application. This necessitates the need to work on developing life skills and developing the skills of second-year middle school students. Teaching using the strategy of project-based education to develop some life skills in the subject of social studies that the researcher presented to the students afterward, it made the decided topics interesting and varied. It suits their growth and motivates them to questions and dialogues that are consistent with their interests and inclinations. Also, the activities that were used during teaching through the reformulated unit with project-based learning, and the level of the second-year preparatory stage pupils were patched. This was not provided to the group previously, which was receiving education limited to written notes to cover the content of the courses, and their lack of dependence on the library and access to various references which impedes their ability to think and research scientifically, and to extract ideas and deduce them from multiple sources. These results go on line with previous studies in this field, including El-Adawy (2014), El-Mawlid (2019), Albagoury (2016), Youssef (2017), Abdel Halim (2020) and El-Fouly (2022).

## **Conclusion**

Project-based learning is essential to help pupils participate in daily life; it provides them with a deeper knowledge of the subjects they are studying in Geography for second-year

preparatory stage pupils. It instills the spirit of competition and exploration among the pupils, constructive participation with its colleagues, and keeping a team spirit to achieve the desired goal which can be traced back to the positive effect of teaching Geography courses using project-based learning through each students doing activities for each project using life skills. And it proved the importance of using project-based education as an educational strategy, and its impact on the development of life skills, the ability to influence others, understanding, and cooperating with them in solving social problems.

### **Recommendations**

1. Providing an educational environment for the development of the pupil and making him positive and effective in the educational process increases the pupil's ability to make a decision and makes a good environment for effective teaching of Geography.
2. The importance of project-based education, and its effective role in forming a positive individual toward the society in which he lives in where he can face problems.
3. The need to formulate objectives in the different educational stages, to shed light on the components of project-based education, and their role in addressing the problems experienced by society in the past, present, and future.
4. Making use of the list of life skills that the researcher has reached in current research and their applications in another study.
5. Paying attention to training pupils in life skills is an important requirement, in light of the successive and accelerating changes as well as developments in the information age.

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