# Eight Study

## The Effect of Using Mobile Learning on the Achievement of Third Grade Students in Arabic Language and Their Attitudes towards It

**By**
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**Abstract:**

The study sought to identify the impact of mobile learning on the achievement of third-grade primary school students in the Arabic language and their attitudes toward learning the Arabic language. To achieve the aim of the study, a quasi-experimental design was used to suit the nature of this study. The researcher developed the learning content Through mobile learning, and used the achievement test and the attitude scale, after ensuring their validity and reliability. The tools were applied to a group of third-grade students at Al-Subaihi Primary and Intermediate School in Bisha Governorate in the first semester of the 2022-2023 academic year. Twenty-six students were selected as a sample using a simple random sampling method, and they were distributed into two equal groups (control and experimental). The test and scale results were entered and analyzed using SPSS. The results showed that there were statistically significant differences at the level ($\alpha = 0.05$) in the achievement of third-grade primary students Through the teaching method, in favor of the experimental group. It also showed that there were statistically significant differences at the level ($\alpha = 0.05$) in the attitudes of third-year primary school students in favor of the experimental group. Through the results, it is recommended to integrate mobile learning into Arabic language curricula because of its effective role in raising students' achievement and their attitudes toward learning.

**Keywords:** mobile learning, trends, Arabic language, third grade of primary school.

**ملخص :**
هدفت الدراسة إلى التعرف على أثر التعلم النقال على تحصيل طلاب الصف الثالث الابتدائي في مادة اللغة العربية واتجاهاتهم نحو تعلم اللغة العربية .ولتحقيق هدف الدراسة تم استخدام التصميم شبه التجريبي لملاءمته لطبيعة هذه الدراسة .وقام الباحث بتطوير محتوى التعلم في ضوء التعلم النقال، واستخدم اختبار التحصيل ومقياس الاتجاهات، بعد التأكد من صدقهما وثباتهما .وطبقت الأدوات على مجموعة من طلاب الصف الثالث الابتدائي بمدرسة الصبيحي الابتدائية والمتوسطة بمحافظة بيشة في الفصل الدراسي الأول من العام الدراسي 2022-2023 .وتم اختيار ستة وعشرين طالبًا كعينة باستخدام أسلوب العينة العشوائية البسيطة، وتم توزيعهم على مجموعتين متساويتين (ضابطة وتجريبية .(وتم إدخال نتائج الاختبار والمقياس وتحليلها باستخدام برنامج .SPSS وأظهرت النتائج وجود فروق ذات دلالة إحصائية عند مستوى الدلالة ($\alpha = 0.05$) في تحصيل طلاب الصف الثالث الابتدائي في ضوء طريقة التدريس، لصالح المجموعة التجريبية .كما أظهرت وجود فروق ذات دلالة إحصائية عند مستوى الدلالة ($\alpha=0.05$) في اتجاهات تلاميذ الصف الثالث الابتدائي لصالح المجموعة التجريبية، وفي ضوء النتائج يوصى بدمج التعلم النقال في مناهج اللغة العربية لما له من دور فعال في رفع تحصيل التلاميذ واتجاهاتهم نحو التعلم .
**الكلمات المفتاحية:** التعلم النقال، الاتجاهات، اللغة العربية، الصف الثالث الابتدائي.

## Introduction:

The current century - the twenty-first - has been marked by tremendous scientific developments, which has made the trend toward modernization across a range of fields inevitable to keep up with the developments, cultural openness, and explosion of information and technology associated with computer science, the Internet, and other modern technologies. This has made it necessary for a number of institutions, including educational institutions, to deal with challenges and developments by using modern methods and strategies and by approaching them with an open mind (Al Badou, 2017).

Several studies indicated that simply providing students with knowledge is no longer sufficient to meet the demands of this era. Instead, new goals that focus on developing students' learning and critical thinking skills as well as equipping them with the various knowledge, skills, and attitudes necessary to handle the different types of knowledge and carry out their social roles in an efficient and effective manner must be considered and formulated (Gupta, 2014; Al-Armeaty, 2015; Al-Bayer, Sa'down, 2018).

In order to achieve the above, and in order to respond to the urgent need for making qualitative changes in the educational and learning process, it has become necessary to use new technological methods in education. Al–Hisnawi and Saleh (2013) pointed out that using technology in the educational process in necessary to ensure its success, help develop the educational process, increasing its effectiveness and efficiency, and achieving its educational goals since it is considered the ideal tool for arousing students' senses, thus increasing their efficiency in receiving information.

Several studies addressed mobile learning. Al Tamimi (2017) sought to address the attitudes of Arabic language teachers in middle school toward employing mobile learning in the teaching process. A descriptive design was employed using a questionnaire distributed to a sample consisting of (83) teachers.

The results showed that the teachers had a positive attitude toward employing mobile learning in the teaching process at a high level. In South Korea, Baek and his colleagues (2017) aimed to reveal the attitudes of primary school teachers (n = 140) toward mobile learning. Descriptive design was employed using MLPS scale for learning perception. The analysis results revealed negative attitudes toward mobile learning among primary school teachers.

The researcher believes that keeping up with the technological advancements has created the term education technology, which is interested in transferring knowledge and skills to the student by using modern technology tools and methods to support the educational process (Rahimi & Soleymani, 2015). One of the most popular teaching methods nowadays is mobile learning, which makes use of smart phones and other mobile devices with a variety of applications that support and enhance the educational process. Smartphones (Mobile phones, iPad, laptops, tablets, etc.) were considered supportive of the education and learning process. As a result of its frequent use, it became viewed as an indispensable necessity of life, it affected all segments of society, including children, youth, and adults (Zhitomirsky-Geffet & Blau, 2017; Allen, 2009).

Perienen (2020) mentioned that mobile learning is one of the best methods that increase students' achievement; as it depends on easy-to-use portable electronic technologies that can be used anywhere, anytime. Moreover, according to Abu-Romman and Hamdi (2018), mobile learning can be used in different learning subjects, including the Arabic language. Arabic language is one of the learning subjects that requires more attention and focus on how to teach it; for its skills (listening, speaking, reading, writing), and due to its eloquence, strength and scientific richness, as well as its familiarity with all cultures and cultural developments. Students' mastery of the spoken or written skills of the Arabic language helps them communicate and express their opinions, needs, and thoughts and pass them on to others (Abu Shabab, 2022).

Additionally, mobile learning is a learning method that uses smart mobile phones that operate in accordance with modern operating systems that include many services that facilitate its use, including browsing the Internet, communicating by mail and chat, and writing (Abu Ghoula, 2017). Watson-Huggins and Trotman (2019) described mobile learning as any teaching activity that uses a mobile device.

As a result, the researcher describes mobile learning as the use and employment of technology in classroom using smart mobile devices, where the teacher presents the information to students via videos, photos, and graphics combined with sound.

One of the main characteristics of mobile learning is the easiness and fast use of mobile devices in teaching and learning. They facilitate teachers' tasks, easy to deal and interact with by the student, and assist parents in keeping track of their children's academic progress (Fabian et al., 2018; Fadzil, 2018; Baek et al., 2017). Andraous (2017) adds that mobile learning fulfills participation for the largest number of students, which is why it is viewed as an example of life learning in which students gain a variety of scientific and practical experiences from their daily practices. It is also easier for students to use mobile devices in the classroom than desktop computers, which take up a lot of room. In addition to that, students' strong attachment to their smartphones has an impact on their ability to attain their main objective, which is achievement.

Fabian and his colleagues (2018) believe that mobile technology is of great importance because it adds something new and interesting to the learning process. Students who use it can continue studying and become more effective, focused, and enthusiastic about learning as a result of the enjoyment and usefulness he finds. Consequently, the researcher thinks that mobile learning modernizes traditional teaching, especially in schools with small potentials that and limited resources and equipment.

Therefore, the use of mobile learning enhances academic achievement by increasing students' motivation, interest, curiosity, and personal commitment towards learning.

Education professionals are interested in academic achievement as it is a reliable measure of the student's level and ability to study. Academic achievement as described by Sawafteh and Al Fashtaky (2010) is the grade that the student receives on a test presented to him in a particular learning subject. It is also defined by Ghraf and Tebry (2016) as the knowledge and information the student receives from different sources expressed in scheduled tests. Al Mahasneh (2020) confirms that achievement is the grade, level, or mark obtained via learning and studying several subjects.

Given these definitions, the researcher confirms the in order to determine a student's level of achievement, there is a need to use tests that measure the student's ability and benefit from learning content provided to him, in addition to the experiences he can have in the classroom.

Abdelrazeq (2010) sees that the reason achievement is important is because it considers the aspects of a student's development that determine their performance. It is the main source that enables the teacher to define the extent to which the cognitive learning process is taking place. Through its results, the students can be classified, true assessments can be given based on their performance, and follow-up learning progress can be made.

In the researcher's opinion, achievement is affected by the student's ability to learn, which calls for using innovative learning methods that motivate him to learn and develop his skills, knowledge, and tendencies. Utilizing modern digital technologies - most notably mobile learning- will help achieve this. In this vein, Hamadnh (2007) pointed out that traditional teaching methods that are still prevalent in schools are the main reason behind the low levels of student achievement.

Thus, a number of studies suggested focusing on the mental processes involved in learning and paying attention to the quality of education by implementing technology-dependent teaching methods that can raise student accomplishment levels and building positive attitudes toward it.

Attitude is viewed as a behavioral, cognitive, and emotional assessment process for a specific idea, method, or topic. It is a psychological tendency that is expressed by judging or evaluating something with a degree of acceptance or non-acceptance (Turkyilmaz, 2014). It is also the student's readiness to consistently respond positively or negatively to a particular topic, and a state of mental and nervous state of preparation that forms in an individual and helps him organizes his prior experiences in a way that influences his responses in a dynamic way (Al Fares, 2015). The researcher notes that students' attitudes toward learning and its methods indicate the assessment process in terms of preference or non-preference, willingness or unwillingness, good or bad; whether students agree or disagree with the teaching method.

Employing mobile learning in teaching the Arabic language contributes to developing students' positive attitudes toward it. This assumption that the researcher provided is based on the fact that mobile learning is a helpful education system and one of the most important modern teaching methods that helps in achieving the desired educational goals; for its services and applications that enable the teacher to provide new technology learning techniques and methods that the students interacts with. With mobile learning teachers can take notes, store files, and teach the lesson from any location at any time. They can also use new methods that are enjoyable for students and help them memorize and understand information with greater enjoyment and benefit than traditional methods.

Since the Arabic language includes linguistic skills that allow the student to communicate effectively, write, read, and listen, employing mobile learning in teaching them may have a role in helping the third-grade students to acquire the language, which in turn will help them to understand the other learning subjects taught in class. Besides, since the third-grade students are in a critical stage, and given that Arabic is the language of Islamic civilization, which has great scientific and intellectual richness, teaching it requires non-traditional teaching methods based on modern scientific techniques, like mobile learning that simulate the preferences of this age group of students.

Al Yateam (2016) mentioned that the use of mobile devices by teachers allows them to present the learning subject in a simplified and interesting manner, which increases students' engagement and learning motivation. This was confirmed by Sa'down (2018), who noted that the use of smartphone applications made the learning process more enjoyable, and increased the students' interest and attitude toward the learning process.

Alrwele (2017) used the experimental design using a sample consisting of (165) students distributed into two groups: Experimental consisting (83) students and control consisting (82) students to investigate the effect of employing an educational program on students' achievement and attitudes toward it. The experimental group went through nine two-hour sessions, underwent an achievement test, and responded to students' attitudes questionnaire.

An improvement in the levels of students' achievement was revealed in favor of the experimental group. A positive effect of the educational program on students' attitudes was found in favor of the experimental group.

In another study in Jordan, Al Mahasneh (2020) distributed a questionnaire to a random sample consisting of (400) teachers of the basic first stage, to investigate the effect of smart phones on basic first-stage students' achievement from their perspectives in Irbid and Jerash governorates.

The results of the study showed a positive effect for using smart phones on the achievement of the students from teachers' perspectives. While Abu Shabab (2022) used a random sample of (345) teachers to investigate the attitudes of Arabic language teachers of the basic grades toward employing smartphones applications in teaching. By analyzing the results of the questionnaire distributed on the sample, the results showed a moderate level of attitudes toward employing smartphones applications in teaching.

The previous studies show that although there is literature addressing the variables of the study, the researcher by his extensive research in the libraries and electronic websites did not find a direct study that addresses the variables of the current study and their relationship with each other; which enhances the authenticity and novelty of the study. Given that, it can be noted that the current study is consistent with the other studies in its aim, however, it distinguishes it from the others in its subject, as it focused on the effect of mobile learning on achievement. No study addressed this in Saudi Arabia due to the researcher's limited knowledge. In this regard, the researcher believes a relationship exists between using mobile phones and students' achievement. Based on this assumption, this study aims to reveal the effect of mobile learning on third-basic grade students' achievement in the Arabic language and their attitude toward learning it.

**Problem of the study**

The Arabic language is considered one of the main and richest study subjects as it is one of the powerful pillars to gain knowledge, through which the student gain understanding and develop knowledge in the different learning subjects.

Not only would improper Arabic language learning hinder students' achievement, but improper Arabic language acquisition also leads to failure in other fields of education. Based on the importance of the Arabic language in the student's life, especially in early grades, many researchers addressed the reality of teaching Arabic to develop it and its teaching methods.

Through the research efforts made, many studies (e.g. Hafez, 2016; Al Harbi, 2019; Ahmad, 2019; Al-Zghoul, 2020) revealed that there is a weakness among students in the different learning subjects. This weakness increases among the early grade students, which leads to a decline in their achievement level. Further, most studies are almost unanimous in their results concerning the most important problems that hinder students' progress in learning the Arabic language and mastering it, which was confirmed by Abed Al Modafar and Alshamary (2018) and Al Lehyany (2020).

Through these results, several previous studies recommended the use of smartphones in addition to their many capabilities in the education process in and out of classroom such as Alfelaij (2018), Andraous (2017), Sa'down (2018), Tbakhi (2020), and Al Watar (2021), which recommended the need to look in the modern technical methods that will help in overcoming shortcomings in teaching Arabic language and achieving its objectives. In addition to the recommendations of many specialized conferences in education and e-learning such as the ICT Conference and Performance Development in Educational Institutions held in Amman during the period 29-31 October 2013, as well as the Conference of Learning and E-Learning Technology and Techniques held in UAE during the period 27-29 March 2018, which recommended the utilization of modern teaching techniques in the innovations of education technology, and to seek to use mobile learning and its several capabilities to serve the education process and the need to conduct further studies that address the potential and effectiveness of various forms of communications and information technology in the educational process.

The study's problem arises from the researcher's investigation into the reality of education in Saudi Arabia, where he noticed the majority of teachers; especially those who teach the Arabic language follow the traditional lecture-based teaching methods and are ignorant of the significant shifts in teaching methods.

After learning within the methodological and behavioral framework was based on content and lectures, learning shifted to being focused on students, their academic abilities, and their desire to learn. This resulted in comprehensive learning that guarantees the learning of all students. The student has started to organize his information in his own way, which provides him with new - unconventional - ways of thinking and learning (Abdelrazeq, 2010).

- Accordingly, the study attempts to answer the main question: "What is the impact of mobile learning on the achievement of third-grade primary school students in the Arabic language and their attitudes toward learning it?" The following sub-questions emerge from the main question of the study:

**- Results of the first question:** "Are there statistically significant differences at the level ($\alpha = 0.05$) in the achievement of third-grade primary school students in the Arabic language Through the teaching method (mobile learning, traditional method)?"

**- Results of the second question:** "Are there statistically significant differences at the level ($\alpha = 0.05$) in the attitudes of third grade primary students towards learning the Arabic language Through the teaching method (mobile learning, traditional method)?"

**Aims of the study:**

The study seeks to reveal the impact of mobile learning on the achievement of third-grade primary school students and their attitudes towards learning the Arabic language. The following sub-objectives emerge from the main objective of the study:

1. Determine whether there are statistically significant differences at the level ($\alpha = 0.05$) in the achievement of third-grade primary school students in the Arabic language Through the teaching method (mobile learning, traditional method).

2. Determine whether there are statistically significant differences at the level ($\alpha = 0.05$) in the attitudes of third-year primary school students towards learning the Arabic language Through the teaching method (mobile learning, traditional method).

**Importance of the study:**

The importance of the study is demonstrated by adding a new field of critical teaching methods that aim to improve students' attitudes towards studying the Arabic language and their achievement through the use of mobile learning. By employing it, the researcher aims to draw the attention of other researchers to conduct future studies examining the impact of mobile learning on the achievement of third-grade primary school students in the Arabic language and their attitudes towards it. Its importance also stems from the theater covers, which are seen as important for students and a basis for all subsequent school grades.

Moreover, the study's significance comes from being one of the recent trends calling for the integration of technology into education. By revealing the effectiveness of the mobile learning teaching method in raising students' achievement and attitudes toward learning the Arabic language, it also aims to provide findings and recommendations that might help solve the issues facing learning Arabic the language instruction. In addition to that, it is intended that the results would draw the attention of researchers and scholars in the field of curricula and teaching methods that are interested in teaching and teachers to improve the supervisory methods provided to them, thereby shedding more light on the topic of teaching through mobile learning in its whole.

**Definitions:**

**Mobile learning**:

Abdel Fattah (2019) defines it as learning via a mobile smart device equipped with advanced communications and computing capabilities. It is equipped with modern technologies and Internet services, allowing the user to download and use a wide range of advanced applications.

In this study, it is defined as learning through the use of modern and advanced electronic devices that provide a huge number of software. They are easy-to-use portable devices (laptops, smartphones) that combine the functions of computers of all types and activities. Smartphones are designed to play and save videos simultaneously on the device. Through its use, learners create and display computerized lessons and videos that combine image and sound, which helps third-year primary school students learn the Arabic language.

**Achievement:**

Sawafta and Al-Fashtaki (2010) define it as an educational achievement that indicates that the student has reached a certain level of proficiency in the teaching and learning process, and this is determined through standardized tests or teachers' reports. In this study, it is defined as the test score obtained by a student in the third grade of primary school.

**Attitudes:**

Abdel-Ghani (2019) defines it as the student's psychological readiness to respond positively or negatively to stimuli from individuals, things, or issues that require this response, and it is usually expressed with love or hatred. It was defined in this study as the levels of attitudes of third-grade primary school students towards learning the Arabic language, and it is measured in this study by the total scores obtained by the sample members on the attitudes scale developed by the researcher.

**Limitations of the study:**

The study was limited to a sample of (26) third-grade students at Al-Subaihi Primary and Intermediate School in Bisha Governorate in the Kingdom of Saudi Arabia during the first semester of the 2022/2023 academic year, and therefore the results cannot be measured. measurement. measurement. measurement. Generalize this to other demographic or geographic locations. The generalization of the study results depends on the study population and the psychometric properties of the tools (validity and reliability).

**Methodology :**

Due to the nature of the study, the experimental approach was used in order to measure the effect of mobile learning on students' achievement and attitude toward it using two groups (experimental – control).

**Population of the Study:**

The study population consisted of all third-grade students who learn the Arabic language in the schools of the Bisha Educational Directorate, who numbered (857) in the 2022-2023 academic year, distributed among (35) schools and (46) classes. According to statistics from the Bisha Education Department.

**Sample of the Study:**

- The study sample consisted of (26) third-grade students distributed among two classes at Al-Subaihi Primary and Intermediate School in Bisha Governorate in the first semester of the 2022-2023 academic year. They were selected using the simple random sampling method due to its proximity. To the researcher's residence. The two classes were divided into two groups by lottery as follows:

**Control Group:**

- The control group consisted of (13) students from the same class who studied two lessons (Adel on the Plane, New School Year) from the first unit (Dealing with Others) of the Arabic language book for the third grade of primary school using the traditional teaching method tool - without treatment -.

**Experimental Group:**

The experimental group consisted of (13) students in the same class who studied two lessons (Adel on the plane, the new school year) as well as in the first unit (dealing with others) from the Arabic language book for the third grade of primary school using mobile learning.

**Instruments of the Study**

To achieve the objectives of the study and for data collection, the following instruments were used:

**First: Subject Matter:**

The first unit (dealing with others) was chosen from the Arabic language subject for the third grade for the academic year 2022-2023, and it consists of two lessons (Adel on the Plane, the new academic year). The behavioral objectives were formulated after reviewing the objectives of teaching the Arabic language set by the Ministry of Education in the teacher's guide. I followed the collective approach in the design process by adding information, activities, images used, and methods for presenting the lesson, while retaining the main content of the book before designing it and presenting it in its final form in terms of form and content. .

**Validity of the Subject Matter:**

To check the content validity of the subject matter and that it has been developed based on mobile learning, it was presented to a jury of experts in curricula and teaching methods; in order to check the appropriateness and relevance of the study's behavioral goals and procedural plan, and to obtain their remarks regarding deleting, adding or any other suggestions, and their notes and amendments have been taken into account in order to achieve the study's objectives.

**Second: Achievement Test:**

To reveal the achievement level of third grade students, an achievement test was developed after reviewing literature and studies related to the subject of the study. The first unit of the Arabic language book for the third grade of primary school was analyzed and two lessons were selected (Adel on the Plane, The New School Year). The number of items in the achievement test was (20).

**Validity of the Test:**

The achievement test was presented to a jury consisting of (11) faculty members to check whether it was appropriate for the current study and to obtain their remarks related to paragraphs and items phrasing, and whether they were appropriate for the age group being investigated. After listing them, their remarks regarding phrasing and adding or deleting any items were taken into account.

**Reliability of the Test:**

The researcher administrated the test and re-administrated it after two weeks on a pilot sample consisting of (20) students from the population of the study and out of the study sample. Then, the Pearson correlation coefficient and the Cronbach Alpha Coefficient for internal consistency between their responses at both times were calculated (0.83 and 0.86, respectively). These values were deemed suitable for the purposes of this study.

**Difficulty and Discrimination Coefficient of the Test:**

Another sample consisting of (17) students was selected based on the percentage of students who answered the items of the test incorrectly. Discrimination Coefficient was calculated for the items with the total score as shown in table (1).

**Table 1: Difficulty and Discrimination Coefficient of the Test's Items**

| Number | Difficulty Coefficient | Discrimination Coefficient | Number | Difficulty Coefficient | Discrimination Coefficient |
|---|---|---|---|---|---|
| 1 | 0.70 | 0.75 | 11 | 0.45 | 0.40 |
| 2 | 0.35 | 0.51 | 12 | 0.70 | 0.42 |
| 3 | 0.50 | 0.61 | 13 | 0.60 | 0.53 |
| 4 | 0.60 | 0.40 | 14 | 0.40 | 0.45 |
| 5 | 0.40 | 0.49 | 15 | 0.70 | 0.41 |
| 6 | 0.50 | 0.53 | 16 | 0.65 | 0.78 |
| 7 | 0.40 | 0.47 | 17 | 0.60 | 0.61 |
| 8 | 0.40 | 0.49 | 18 | 0.65 | 0.47 |
| 9 | 0.75 | 0.73 | 19 | 0.65 | 0.53 |
| 10 | 0.65 | 0.41 | 20 | 0.60 | 0.55 |

In view of the acceptable range of the item's difficulty, which ranged between (0.20-0.80) and the item's discrimination, it can be noted from the table above that the difficulty coefficient ranged between (0.35-0.75) and the discrimination coefficient ranged between (0.40-0.78). The item is considered good if the discrimination coefficient is greater than (0.39), and considered acceptable and in need of improvement if the discrimination coefficient is between (0.20-0.39), weak and in need to be deleted if it is between (0-0.19), and the negative values are in need to be deleted. Through the difficulty and discrimination coefficient, no item was deleted as a result.

**Thirdly: Attitude Scale:**

A scale was developed to assess the attitudes toward mobile learning and the effect of mobile learning on the attitude of third-grade students in the Arabic language subject after reviewing a set of studies such as Abu Shabab (2022) and Al-Janeabeah (2019), and taking some items and rephrasing them in line with this study. The scale in its preliminary format consisted of (19) items distributed on two domains: enjoying Arabic Language lessons, and the importance of Arabic as a subject.

**Scale Validity :**

The scale was presented to a jury consisting of (11) specialized faculty members to give their remarks concerning the phrasing of the items, the usability of the scale, and whether it's appropriate for the age group being investigated. Through their remarks, some items were rephrased and one item was deleted. Thus, the scale in its final format consisted of (18) items distributed on two domains: enjoying Arabic Language lessons, and the importance of Arabic as a subject.

**Scale Reliability:**

The scale was administrated and re-administrated after two weeks on a sample consisting of (20) students, and both the Pearson correlation coefficient and the Cronbach Alpha Coefficient for internal consistency between their responses at both times were calculated which were deemed suitable for the purposes of this study as shown in table (2).

**Table 2: Cronbach Alpha Coefficient for Internal Consistency and Test-Retest Reliability for Individual Domains and Total Instrument**

| Domain | Test-retest | Internal Consistency |
|---|---|---|
| Enjoying Arabic Language lessons | 0.90 | 0.70 |
| The importance of Arabic as a subject | 0.91 | 0.82 |
| Total | 0.90 | 0.73 |

**The Equivalence of the Groups: Achievement in Arabic language:**

Means and standard deviations were calculated for the achievement of the third-grade students in the Arabic language in the pre-test Through the group as seen in table (3).

**Table 3: Means and Standard Deviations of the Achievement of the Third-Grade Students in the Arabic Language in the Pre-Test Through the Group**

| Group | Means | Std. Devi. | Number |
|---|---|---|---|
| Experimental | 10.80 | 3.084 | 13 |
| Control | 9.00 | 3.300 | 13 |
| Sum | 9.40 | 3.241 | 26 |

## Study Procedures:

Procedures followed to achieve the study objectives:

- Defining the study problem, its questions and variables.
- Review previous literature related to mobile learning, in addition to some computerized lessons presented on YouTube.
- Request assistance from the computer teacher in managing mobile learning.
- Designing an educational program for the researcher for the first unit (dealing with others) and the two lessons (fair on the plane, new)
- school year) of the Arabic language textbook of the third-grade for the year 2022-2023. A set of activities, questions, pictures, and shapes that are appropriate for computerized lessons were added, in addition to adding new goals for the unit to achieve the objectives of the study.
- Developing the instruments of the study namely an achievement test consisting of (20) questions, and attitudes toward the Arabic language consisting of (18) items, checking their validity and reliability, and presenting them on a jury of experts in curricula and teaching methods.
- Granting the approval of the Ministry of Education.
- Administering the instruments on the control and experimental groups one week before administering the educational program.
- Training the teacher on the mechanism of presenting the lessons to the students of the experimental group using computerized lessons.
- Presenting the content of the computerized lessons on the experimental by the teacher by (6) classes over two weeks.
- Administrating the instruments of the study after finishing the educational program, and correcting responses according to instructions for correction of tests.

- Analyzing data statistically after entering them to SPSS, explaining the results, and suggesting a set of recommendations and suggestions Through the results.

**Variables of the Study:**

The teaching method (Mobile learning, traditional method) is the dependent variable, while achievement and attitudes are the independent variables.

**Statistical Analysis:**

Means, standard deviations, and Two-Way ANCOVA were calculated to reveal the differences in the post-test between the groups (Experimental, control).

**Results and discussion:**

**Results of the first question: "Are there statistically significant differences at the level (α = 0.05) in the achievement of third-grade primary school students in the Arabic language Through the teaching method (mobile learning, traditional method)?"**

Means and standard deviations were calculated for the achievement of the third-grade students in the Arabic language in the pre and post-tests Through the teaching method (mobile learning, traditional method), as shown in table (4).

**Table 4: Means and Standard Deviations of the Achievement of the Third-Grade Students in the Arabic Language in the Pre-Test Through the Teaching Method**

| Teaching method | Pre-test | | Post-test | | Number |
|---|---|---|---|---|---|
| | Means | Std. Dev. | Means | Std. Dev. | |
| Mobile learning | 9.90 | 3.243 | 15.00 | 2.317 | 13 |
| Traditional method | 8.90 | 3.243 | 11.95 | 4.249 | 13 |
| Total | 8.85 | 3.345 | 13.65 | 4.133 | 26 |

Table (4) indicates that there are apparent differences in the pre and post-tests Through the teaching method. In order to define whether the apparent differences are statistically significant, Two-Way ANCOVA was calculated for the total score of the post-test of the students' achievement Through the teaching method, after neutralizing the effect of the pre-test as shown in table (5).

**Table 5: Results of Two-Way ANCOVA of the Third Basic Grade Students' Achievement in Arabic Language Through Teaching Method after Neutralizing the Effect of the Pre-Test**

| Source of variance | Sum square | df | Means of sum of squares | f | Sig. | $\eta^2$ |
|---|---|---|---|---|---|---|
| Pre-test | 90.132 | 1 | 90.132 | 9.209 | 0.005 | 0.208 |
| Teaching method | 61.367 | 1 | 61.367 | 6.270 | 0.017 | 0.152 |
| Error | 342.569 | 23 | 9.789 | | | |
| Total | 537.974 | 25 | | | | |

It is clear from table (5) that there are statistically significant differences at ($\alpha = 0.05$) in the third basic grade students' achievement in Arabic language Through the teaching method (mobile learning, traditional method) ($F = 6.270$, Sig = 0.017); the values indicate that there is an effect for the group. It is also evident that the effect size of the teaching method was significant; Eta square ($\eta^2$) explained 15.2% of the explained variance (the predicted) in achievement. In order to define for whom the differences are in favor, modified means and standard errors were calculated Through the teaching method as table (6) shows.

**Table 6: Modified Means and Standard Errors of the Third Basic Grade Students' Achievement in Arabic Language Through the Teaching Method**

| Teaching Method | Modified Means Score | Standard Error |
|---|---|---|
| Mobile learning | 13.620 | 1.014 |
| Traditional method | 12.494 | 0.991 |
| Sum | 13.057 | 0.704 |

Table (6) shows that the differences were in favor of the experimental group which was taught using mobile learning compared with the control group taught using the traditional method.

Through the results, there are statistically significant differences in the achievement of third-grade primary school students Through the teaching method, in favor of the experimental group.

This suggests that the students in the experimental group performed better as a result of mobile learning positive effect. This can be due to several factors related to concessional terms, the easiness of mobile learning that the teacher used in teaching the experimental group and his ability to motivate students by assisting them in memorization, comprehension, and retention of what is read. Mobile learning is easy to deal with, it can be administered in many school subjects, and students can use mobile learning independently of their friends or teachers. It links the reading and visual components of the content, which improves focus and memory retention in students and increases their achievement.

The researcher attributes the result to the fact that teaching via mobile learning is a popular method among students since it keeps them engaged and draws their attention to the educational material –Arabic language–. They found it enjoyable, which boosted their enthusiasm for the Arabic language classes. It can also explained by the fact that using mobile learning for teaching helped to break up the routine and boredom that exist in the traditional educational process, increasing students' interest in the learning subject as well as their self-confidence and engagement, it broke down barriers between students, focusing their attention on the subject of Arabic language and the desire to accomplish during the class.

Consequently, the result demonstrate that teaching via mobile learning stimulates students' feelings in a way that differs from readable or audible texts, as mobile learning adds extra domain to learning experience, diversifies the ways in which information is received and presented, and shows that the information received from multiple sensory channels is perceived more effectively than information presented through a single sensory channel.

Therefore, the researcher believes that this result is logical, as the first unit of the Arabic language book (dealing with others) was taught to third-grade students using the mobile teaching method, which included effective educational steps that allowed the students to succeed in the organized stages of study.

Steps that contributed significantly to developing their abilities to memorize information, understand it, encode it correctly, and remember it when tested. Moreover, the mobile learning teaching method has played a significant and prominent role in delivering ideas and information to students in a visual form, which has made it easier for them to comprehend the learning content. The mobile learning teaching method facilitated the organization of information in students' minds, shifting them from a routine and sometimes complex context to one that is easier and simpler. It also turned complex information and texts into understandable, attractive, and interesting images, which improved their understanding of the lesson and increasing their achievement level.

The result is consistent with the one provided by Al Mahasneh (2020), Alrwele (2017), and Bin Omar (2016) which confirmed that there is a positive effect of the use of mobile learning on the student's achievement.

**Results of the second question: "Are there statistically significant differences at the level ($\alpha = 0.05$) in the attitudes of third grade primary students towards learning the Arabic language Through the teaching method (mobile learning, traditional method)?"**

Means and standard deviations were calculated for the attitudes of the third-grade students toward learning the Arabic language in the pre and post-tests Through the teaching method (mobile learning, traditional method), as shown in table (7).

**Table 7: Means and Standard Deviations of the Attitudes of the Third-Grade Students toward the Arabic Language in the Pre-Test Through the Teaching Method**

| Teaching method | Pre-test | | Post-test | | Number |
|---|---|---|---|---|---|
| | Means | Std. Dev. | Means | Std. Dev. | |
| Mobile learning | 2.83 | 0.393 | 3.43 | 0.404 | 13 |
| Traditional method | 2.90 | 0.342 | 0.03 | 0.534 | 13 |
| Total | 2.87 | 0.360 | 3.23 | 0.503 | 26 |

Table (7) indicates that there are differences in the attitudes of the third basic grade students toward learning the Arabic language in the pre and post-tests Through the teaching method. In order to define whether the apparent differences are statistically significant, Two-Way ANCOVA was calculated for the total score of the post-test of the students' attitudes Through the teaching method, after neutralizing the effect of the pre-test as shown in table (8).

**Table 8: Results of Two-Way ANCOVA of the Third Basic Grade Students' Attitudes toward Arabic Language Through Teaching Method after Neutralizing the Effect of the Pre-Test**

| Source of variance | Sum square | df | Means of sum of squares | f | Sig. | $\eta^2$ |
|---|---|---|---|---|---|---|
| Pre-test | 0.00005 | 1 | 0.00005 | 0.000 | 0.997 | 0.000 |
| Teaching method | 2.542 | 1 | 2.542 | 9.079 | 0.005 | 0.206 |
| Error | 9.799 | 23 | 0.280 | | | |
| Total | 12.471 | 25 | | | | |

It is clear from Table (8) that there are statistically significant differences at the level ($\alpha = 0.05$) in the attitudes of third-year primary school students towards learning the Arabic language Through the teaching method (mobile learning, traditional method). ($F = 9.079$, $Sig = 0.05$); the values indicate that there is an effect for mobile learning on the student's attitudes toward learning the Arabic language. It is also evident that the effect size of the teaching method was significant; Eta square ($\eta 2$) explained 20.6% of the explained variance (the predicted) in the student's attitudes toward learning the Arabic language. Modified means and standard errors were calculated Through the teaching method as table (9) shows.

**Table 9: Modified Means and Standard Errors of the Third Basic Grade Students' Attitudes toward Leaning Arabic Language Through the Teaching Method**

| Teaching Method | Modified Means Score | Standard Error |
|---|---|---|
| Mobile learning | 3.425 | 0.167 |
| Traditional method | 3.033 | 0.167 |
| Sum | 3.229 | 0.118 |

Table (9) shows that the differences were in favor of the experimental group which was taught using mobile learning compared with the control group taught using the traditional method. Additionally, means and standard deviations for pre and post-tests were calculated for the domains of attitudes scale Through the teaching method (mobile learning, traditional method), table (10) shows that.

**Table (10): Means and Standard Deviations of the Domains of Attitudes Scale Through the Teaching Method (Mobile Learning, Traditional Method)**

| Teaching method | | Pre-test | | Post-test | | Number |
|---|---|---|---|---|---|---|
| | | Means | Std. Dev. | Means | Std. Dev. | |
| Enjoying Arabic Language lessons | Mobile learning | 2.78 | 0.381 | 3.41 | 0.475 | 13 |
| | Traditional method | 3.01 | 0.834 | 3.00 | 0.471 | 13 |
| | Sum | 2.89 | 0.643 | 3.21 | 0.507 | 26 |
| The importance of Arabic as a subject | Mobile learning | 3.01 | 0.395 | 3.44 | 0.492 | 13 |
| | Traditional method | 3.10 | 0.410 | 3.14 | 0.614 | 13 |
| | Sum | 3.06 | 0.394 | 3.29 | 0.563 | 26 |

Table (10) indicates that there are statistically significant differences between the means of the pre and post-tests of the domains of attitudes scale Through the teaching method (mobile learning, traditional method). To check the significance of the apparent differences, Two-Way ANCOVA was calculated as the following table shows.

**Table 11: Results of Two-Way ANCOVA for the Effect of Teaching Method (Mobile Learning, Traditional Method), and Achievement on the Domains of Attitudes toward Learning Arabic Language Scale**

| Effect | Type of Multiple testing | Value of Multiple testing | Total f | df | Error df | Error provability | η2 |
|---|---|---|---|---|---|---|---|
| Teaching method | Hotelling's Trace | 0.302 | 3.119 | 3.000 | 31.000 | 0.040 | 0.323 |

Table (11) shows that there was a statistically significant effect of the teaching method on the post-test of the areas of the attitude scale, where the trace value reached (0.302) and a statistical significance of (0.040). To determine the area in which the group effect was present, a two-way analysis of variance (Two-Way ANCOVA) was calculated after equating the effect of the pre-test as shown in Table (12).

**Table 12: Results of Two-Way ANCOVA for the Effect of Teaching Method on the Post-Test for each Domain of Attitudes Scale after Neutralizing the Effect of the Pre-Test**

| Source of variance | | Sum square | df | Means of sum of squares | f | Error provability | $\eta^2$ |
|---|---|---|---|---|---|---|---|
| Enjoying Arabic Language lessons pre-test (co variance) | Enjoying Arabic Language lessons | 0.193 | 1 | 0.193 | 0.814 | 0.374 | 0.024 |
| The importance of Arabic as a subject pre-test (co variance) | The importance of Arabic as a subject | 0.164 | 1 | 0.164 | 0.412 | 0.525 | 0.012 |
| Teaching method | Enjoying Arabic Language lessons | 1.779 | 1 | 1.779 | 7.499 | 0.010 | 0.185 |
| | The importance of Arabic as a subject | 1.798 | 1 | 1.798 | 4.519 | 0.041 | 0.120 |
| Teaching method | Enjoying Arabic Language lessons | 0.038 | 1 | 0.038 | 0.159 | 0.692 | 0.005 |
| | The importance of Arabic as a subject | 0.172 | 1 | 0.172 | 0.433 | 0.515 | 0.013 |
| Error | Enjoying Arabic Language lessons | 7.829 | 23 | 0.237 | | | |
| | The importance of Arabic as a subject | 13.129 | 23 | 0.398 | | | |
| | Enjoying Arabic Language lessons | 14.217 | 23 | 0.431 | | | |
| Total corrected | Enjoying Arabic Language lessons | 10.086 | 25 | | | | |
| | The importance of Arabic as a subject | 15.829 | 25 | | | | |
| | Enjoying Arabic Language lessons | 19.600 | 25 | | | | |

It can be noted from table (12) that there are differences in the effect of the teaching method in all domains. Modified means and standard errors for the domains were calculated Through the teaching method. Results presented in table (13).

**Table (13): Modified Means and Standard Error of the Post-Test for the Domains of Attitudes Scale Through the Teaching Method (Mobile Learning, Traditional Method)**

| Domain | | Modified means | Standard error |
|---|---|---|---|
| Enjoying Arabic Language lessons | Mobile learning | 3.388 | 0.156 |
| | Traditional method | 2.986 | 0.156 |
| The importance of Arabic as a subject | Mobile learning | 3.187 | 0.111 |
| | Traditional method | 3.430 | 0.201 |
| Sum | | 2.912 | 0.417 |

As can be seen from Table (13), the differences between the adjusted posttest averages in all areas of the scale were in favor of the experimental group that was taught using mobile learning compared to the control group that was taught in the traditional way.

Through the results, there are statistically significant differences in the attitudes of third-year primary school students in favor of the experimental group that received learning via mobile learning. This result shows that mobile learning affects students' attitudes as it develops their culture, determines their attitudes, and focuses their interests on pivotal and important issues, as mobile learning emphasizes the use of video clips, pictures, and colors on text to enable students to remember. information for as long as possible.

The results can also be attributed to the fact that mobile learning works to transform difficult and comprehensive information into interesting audio-visual information that contributed to delivering information to students in a faster, better and more effective way. A range of advanced and interactive presentations focused on producing adaptable design deliverables are included in mobile learning.

The variety of graphics, basic shapes, sounds, and images included in computerized lessons helped attract students' attention and help them understand the information and make new connections with it.

Since traditional educational methods usually lead to a loss in the amount of learning and understanding, the researcher believes that the use of mobile learning helps enhance the efficiency of teaching and learning processes. Moreover, mobile learning improves the motivation of third-grade primary students and their attitudes towards the Arabic language, and the teaching method - mobile learning -. It also facilitates better communication between the students, the teacher and the students themselves in the class.

Based on this, the researcher concludes that the reason why students' attitudes toward learning Arabic through mobile learning are improving and growing could be that this kind of learning transforms readable and challenging lessons into visually engaging computerized lessons that help students understand concepts and information quickly and effectively, particularly when they are expected to understand concepts that are new or challenging for them. The result is consistent with the one provided by Alrwele (2017) which showed a positive effect of mobile learning on the students' attitudes toward learning.

Through the results, the study recommends to:

- Since mobile learning has an effective role in raising student achievement and attitudes toward learning, it should be incorporated into Arabic language curricula.
- Preparing Arabic language instructors to use mobile learning methods.
- Encouraging scholars and researchers to conduct future studies related to mobile learning with other samples.

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