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# Impact of Integrated Learning Strategy on Language Skills Academic Achievement among University of Jordan Female Students

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**Abstract:** The purpose of this study is to analyze the impact of integrated learning strategy on language skills educational achievement among female students at the University of Jordan. A quasi-experimental study design was applied. Participants (n=40) were enrolled in Language Skills course for undergraduate students throughout the first semester of the academic year 2018/2019. Based on data provided by the Admission and Registration Unit in the University of Jordan, the students were randomly assigned to two groups: experimental (n=20) as well as control (n=20). To achieve the study goals, an achievement test was applied as pre-test and post-test. ANCOVA analysis revealed a statistical difference at the significance level ( $\alpha=0.05$ ) within the research groups in overall average accomplishment test scores, with differences favoring the experimental group taught using an integrated learning strategy.

**Keywords:** Integrated learning strategy, academic achievement, language skills, University of Jordan, female students.

## 1 Introduction

As a means of communication, language is paramount for both individuals and groups to express their views, notions, thoughts, feelings and their wants. So, depending on the four language skills of listening, speaking, reading and writing, individuals can express themselves clearly, thereby others can understand and interact with them. In addition, language is key for learning different cognitions and disciplines, and academic achievement is important to measure learning outcomes in various fields. So, learning is typically measured by the score achieved by a student on the achievement test, meaning that the score achieved indicates acquisition of learning by a student [1]. Since language is important for both communication and learning, investigating language achievement and language skills is critical for learning about knowledge in different disciplines. Achievement is described as mastery of skills and cognitions by a student as a result of being exposed to educational experiences in a specific course of study [2, 3]. Other authors have referred to achievement as what a student can make following studying a course or a module [4]. Others viewed achievement as the product of learning after a specific time, which is measured by the grade a student gets on the achievement test to identify the learning outcomes achieved and how much knowledge was acquired [5-7]. Typically, academic achievement has been linked to goals, where each instructor seeks to measure how many students acquired of the learning goals under the learning-teaching process by applying the achievement tests. Bloom's taxonomy displays different levels of objectives including: remember, understand, apply, analyze, synthesis, evaluate, and [8-10]. To accomplish such goals, teachers need to adopt modern teaching methods that employ technology in the teaching-learning process like integrated learning strategies and reflect the spirit of this digital age.

Integrated learning is a teaching method that combines online learning and traditional learning taking place inside the classroom within one framework. The approach employs the communication technologies and the World Wide Web to deliver content to students besides the conventional face-to-face teaching, so that both modalities work together to accomplish intended learning outcomes and increase achievement among students [11]. Integrated learning is defined as an educational strategy based on a mixture of technology and authentic experience, based on the computer [12, 13]. In [14], Defined it as a method of distance education that uses technology such as television, Internet, and voice email with traditional teaching and learning. As a teaching method, integrated learning combines between direct and indirect communication and necessitates availability of the instructional content, classroom, and educational materials for teaching face-to-face, availability of the Internet educational resources, electronic networks, and electronic content. Instructors, of course, need to acquire online teaching competencies and skills to blend online learning with the traditional instruction, this will provide greater flexibility in teaching and learning, and allow the delivery of high-

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quality content, which in turn facilitates achieving effective learning. Mixing different technologies can also encourage students to teach faster and on a larger scale, and access support at anytime and anywhere [15-17]. There are many models for integrated learning [18]:

### ***1.1 Face to face driver model***

This model is akin to traditional teaching, because most of the class is run through face-to-face lessons. Online instructions are provided to late students, to participate and complete lessons in class.

### ***1.2 Rotation model***

This model is based on the idea of creating a schedule for students to work at different stations ranging from face-to-face work and online work, to transition between face-to-face instruction and online assignments. This gives them the time and attention they need on specific topics while allowing different learners to have different learning paths with the goal of mastering the material.

### ***1.3 Self-integration model***

This model is based on giving students the opportunity to take additional semesters to obtain an advanced place or to demonstrate a special interest in a subject by means of integrated self-learning. It gives them the opportunity to take lessons beyond the general course catalog with online lessons.

### ***1.4 Model of online driver***

It is based on online teaching delivery. Students work from remote locations and receive instructions and assignments via online platforms. The teachers' role is as facilitators, giving students the opportunity to check-in and engage in online messaging if they need more help. This model is best suited for students with chronic illnesses, students who need flexibility for other commitments or students who want to progress faster than is possible in a traditional school environment. As a teaching strategy, integrated learning is characterized by the possibility of learning freely from place and time restrictions. By combining online learning with traditional instruction, a student may gain knowledge from the Internet, at her own pace of learning and aptitudes. So, integrated learning takes into account individual differences among students, particularly those easily distracted from the learning task in the traditional learning taking place inside the classroom. Therefore, integrated learning becomes helpful to improve their academic achievement level and keep track with classmates. On the other hand, integrated learning allows room for students to express themselves freely, learn and participate throughout the teaching-learning process at their own pace of learning and appropriately with their capabilities, so that their general achievement level will be improved accordingly [19, 20]. The relevant literature was reviewed considering the related study variables in chronological order as follows, In study [21] investigates the impact of integrated learning on the performance of Dental care College students in a sociology course at University of Ajman. It comes close the results of various educational methods for the 'Practical science course. A quasi-experimental case study design was used to perform the research. The study included 116 students who were separated into two groups: an experimental group (n = 59) as well as a control group (n = 57). The study's validity and reliability were confirmed with an accomplishment test. The data was analyzed using SPSS. The results demonstrated that there were statistically significant differences favoring the experimental group between the experimental and control groups. Furthermore, the findings demonstrated that achievement differed based on the gender of the experimental group students (among females). The report suggests that more research be conducted on the usage of integrated learning in higher education institutions.

In a study conducted by [22] in Ajman, , this study is to look into the effects of integrated learning on the students in Ajman University's higher diploma in education (HDE) program. It compares the outcomes of several teaching methods for the 'Strategies of Teaching the Arabic Language Class,' along with students' responses to their use. A quasi-experimental design case study was used to perform the research. The study included 94 students who were separated into two equal-sized groups (n = 47; that was for the experimental and control groups, and the other is for the control group. To ensure the study's validity and reliability, an achievement exam and questionnaire were developed. The data was analyzed using SPSS. The results demonstrate statistical difference between the experimental and control in behalf of the experimental group's teaching technique, and pupils in this experimental group have favorable attitudes toward integrated learning. Participants with educational evaluation (Grade average 3.5-4), computer literacy (participants with outstanding computer skills), and no significance levels based on classroom experience were favored in their opinion. More studies on the use of integrative education institutions are suggested in the report. In [23], the aim of this study is to investigate the impact of employing integrated teaching strategy on achievement in English course by University of Jordan students. Participants were (60) male and female students enrolled in the English language course throughout the first academic session of the 2016/2017 academic year. Two classrooms were purposefully selected, the first represented the experimental group (n=30) as well as the other represented the control group (n=30). A 30-question achievement text was developed, and data collected were analyzed using One-Way ANCOVA. Results revealed

statistically significant differences between the achievements score means attributed to the methodology of teaching among the experimental group. In [24], Investigated the effect of applying the integrated learning strategy on Jordan's geography achievement by University of Jordan students. Participants were (56) male and female students enrolled in Jordan's Geography course throughout the first academic session of the 2016/2017 academic year. Two classrooms were selected purposefully, one experimental (n=27) and the other is the control (n=29) group. A 30-item achievement test was developed and One-way ANCOVA was used to analyze data. Results indicated a significant difference in achievement average scores attributable to teaching method in experiment group. In [25] Aimed in his study to investigate the effect of integrated teaching on the achievement of German Jordanian University students' and motivation to study English A selected research technique was used as a pilot. Pilot research papers are effective study tools for examining learning issues in real-life situations. They're used to fine-tune research questions and variables, as well as the qualitative research design, before putting it into a larger study. The sample of the study consisted of 30 participants who have been assigned to experimental group and control group at random. The experimental group received English instruction using an automated program in addition to the conventional method, while the control group received instruction solely from the latter. The analysis of covariance (ANCOVA) revealed statistical differences in accomplishment between the two main groups, showing that the experiment outperformed the control group. There were also major disparities in the desire of the two groups to learn English. The study of [26] analyze the impact of integrated teaching on students' educational progress at the University of Jordan The questionnaire survey is used to gather natural data in order to gain a complete understanding of the phenomenon being studied. All questionnaires in this research study are written in Arabic for the purpose of persuasion. Because of the topic's subjective nature, a traditional sample technique is employed. A total of 427 pupils from Jordan University's King Abdulla II School of Information Technology were randomly selected. Data were analyzed using the SPSS10 program. Arithmetic mean, standard deviation statistics, and the Pearson correlation matrix are used to perform robust tests on the results. According to the study's statistical findings, integrated way of learning has a major t and favorable effect on the educational attainment of Jordanian university students. The exploration of previous studies that the researcher was able to see reveals that all of them are interested in studying the impact of integrated way of teaching on the educational students' achievements in different universities. Also, [1, 23, 24] were conducted at the University of Jordan and on various academic courses; The study of [23] was applied to the English language course, while the study of [1] was applied to the technology courses, and the [24] was applied to the geography course.

While the study by [24] it was applied to students of the German Jordanian University and in the English language course. As for the study of [22] it was applied to Ajman University students in the Arabic language course for high diploma students, while the study of [22] was applied to the physics course for students of the College of Dentistry at Ajman University.

The recent research also aims to identify the effect of integrated learning on educational achievements, but in the language skills course, which is one of the courses of the school of educational sciences at the University of Jordan.

The purpose of the current study, therefore, was to identify the impact of integrated learning strategy on language skills achievement by female students at the University of Jordan. This study relied on a rotation model based on the idea of creating a schedule for students to work at different stations ranging from face-to-face work to online work, and transition between face-to-face instruction and online assignments.

## 2 Statement of the problem and hypothesis

Today's technological breakthroughs in different fields and specifically its influences on education, entails developing novel teaching strategies that are responsive to such accelerated developments worldwide by employing technology in the process of teaching and learning. In this, context the University of Jordan encourages using different teaching methods, including integrated learning, especially in light of the COVID-19 pandemic's impact on education. The integrated learning strategy combines online learning and traditional classroom teaching. Considering the importance of learning outcomes of the teaching learning process, measuring academic achievement becomes paramount (Obeidat & Abu Al-Sameed, 2005). Similarly, the current study attempts to identify the effect of integrated teaching on the educational achievement of female at the University of Jordan by by putting the following assumptions to the test:" There are statistically significant differences between the study groups at

( $\alpha=0.05$ ) level among mean scores on the language skills achievement test by the University of Jordan female students attributed to the teaching strategy (integrated learning/normal)".

### 2.1 Objective of the study

The aim of this study is to analyze the impact of integrated learning strategy on language skills achievement among University of Jordan female students.

## 2.2 Importance of the study

The importance of the present study stems from the following:

It emphasizes combining online learning with traditional learning; in order to reflect the impact of technology in the educational field. Results from the present study would contribute to the improvement of female student achievement, which may reflect positively on the teaching-learning process at in the University of Jordan.

Additionally, results from the current study will be beneficial to administrators in the University of Jordan regarding the recommendations on the integrated learning as practiced in the University of Jordan.

The present study would open the door for researchers to conduct further studies on integrated learning as implemented at the University of Jordan with focus on academic courses taught in other faculties at the university.

## 2.3 Operational definitions

The present study provided the following operational definitions:

**Integrated learning:** A learning method combining online learning and traditional delivery of the language skills content by the instructor to female students enrolled in the language skills course in the University of Jordan throughout the first academic session year (2018/2019).

**Academic achievement:** the outcome of instruction acquired by female students enrolled in the language skills course in the University of Jordan throughout the first academic session year (2018/2019) at the University of Jordan after being exposed to the learning experience and measured by the grade scored on achievement test developed by the researcher.

## 2.4 Scope of the study and limitation

Results from the current study have some limitations due to its scope and other obstacles such as:

**Human limitation:** The study was conducted on female students enrolled in language skills course irrespective of any other course the participants studied.

**Place limitation:** The study was conducted on students at the University of Jordan.

**Time limitation:** it was conducted during the first academic session of the 2018/2019 academic year.

### Limitations of the Study:

Results from the present study are limited due to issues related to the validity and reliability of the study instrument because it is the researchers are not sure how reliably the students responded to the instrument questions.

## 3 Methodology

### 3.1 Methods

A quasi-experimental method was adopted in the present research to analyze the effectiveness of integrated teaching as teaching modality on the educational achievement of female students attending the language skills class at the University of Jordan where The participants were divided into two groups: experimental and control.

### 3.2 Participants

Participants (n=40) were female students studying language skills course at the university of Jordan in throughout the first academic session year (2018/2019). The female students were divided into two groups: one was the experimental group (n=20), and the other was the control group (n=20).

### 3.3 Instrumentation

To accomplish the study goals, a 25-multiple choice item achievement test developed by the researcher was applied for pretest and posttest measurement. The achievement test question was inclusive to language skills textbook chapters studied by language skills course students in the University of Jordan. Each question was assigned one grade totaling 25-grades. The achievement test was developed in light of specific criteria matrix.

### 3.4 Validity

To determine the accomplishment test's validity, a preliminary version of the test was sent to a number of specialized judges to elicit their views according to which some items were either deleted or changed appropriately.

### 3.5 Reliability

To test for reliability, a pilot study sample (n=20) opted without the original sample from previous semesters was administered the achievement test. Two weeks later, the test was reapplied to the same sample. Pearson's correlation coefficient calculated between the two cases was computed (r=0.88) which was considered appropriate for the study purposes.

## 4 Procedures

Procedures followed by the current study included the following:

1. Literature review of the education prior studies relevant core subject of the study attempting to crystallize the problem addressed by this study.
2. A preliminary version of the study instrument was developed based on specific criteria matrix and tested for validity and reliability.
3. The participants were assigned at random into two experimental (classroom 1) and control (classroom 2) groups using the random selection method.
4. Students were assigned the achievement test as pretest and posttest measurement. The control and experimental group students were administered the achievement test on October 02, 2018, and on October 03, 2018, respectively.
5. The language skills course was taught to the experimental group using an integrated learning technique. while the control group female students were taught normally during the period from October 04, 2018, to December 02, 2018.
6. The achievement test was administered as pretest and posttest measurement to the control and experimental group students following completion of the study on December 03, 2018, and Dec. 04, 2018, respectively.
7. Data collection and statistical analysis using ANCOVA analysis test and discussion of results.

### 4.1 Study design

The current study design was based on two randomly selected groups, the experimental group were exposed to integrated learning strategy and the control group students were taught normally. To measure the impact of integrated learning strategy on language skills achievement of female students at the University of Jordan, the achievement test developed by the researcher was applied as pretest and posttest measurement to the study experimental as well as control groups. The design of the study was as follow:

EG: OXO

CG: O-O

### Variables

The following variables were measured in this study:

*\*The independent variable:* learning strategy having two levels: integrated learning versus normal learning.

*\*The dependent variable* that was measured by the achievement test was language skills achievement.

## 5 Results and Discussion

The current study hypothesized that: "There are e differences between the study groups are statistically significant at ( $\alpha=0.05$ ) level among mean scores on the language skills achievement test by the University of Jordan female students attributed to the teaching strategy (integrated learning/normal)".

To test for this hypothesis, standard deviations and average were computed for the participant scores on the language skills achievement tests as pre and post measurement by the learning strategy (integrated learning/normal). The table below shows the results.

**Table 1:** standard deviations and averages of participant grades on the language skills academic achievement pre/posttest by the group

Group	Pretest		Posttest		Number
	M	SD	M	SD	
Experimental	12.25	3.193	14.45	2.704	20
Control	10.60	3.152	11.80	3.002	20

Overall	11.43	3.241	13.13	3.123	40
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Table (1) illustrate that the overall average score of the experimental group students' achievement on the achievement posttest was ( $M=14.45$ ,  $SD=2.704$ ) compared with the overall average score of the control group students' achievement on the achievement posttest was ( $M=11.80$ ,  $SD=3.002$ ) implying that there exist statistical significance between the study Group overall average score on the posttest in behalf of the students in the experimental group who were instructed using an integrated approach learning strategy. To identify significance of the differences ANCOVA analysis was applied, and table (2) shows the results.

**Table 2:** Results of ANCOVA test analysis and significance of differences among mean scores on the academic achievement posttest by the group

Source of variance	Total squares	Freedom degrees	Means squares	F Value	Significance	
Covariant (Pretest)	88.645	1	88.645	14.805.3707	.000	.286
Group	32.149	1	32.149	5.370	.026	.127
Error	221.505	37	5.987			
Overall	380.375	39				

Table (2) reveals statistical significance at ( $\alpha=0.05$ ) among the achievement scores on the posttest measurement related to the experimental group's group variable, with differences favoring the experimental group. The computed F value (5.370) and was statistically significant at (0.26), which is less than (0.05), indicating impact of the integrated learning strategy on achievement with effect size (.127), meaning that about 12 per cent of the overall variance in achievement could be accounted for by the integrated learning strategy, whereas the remaining percentage was due to uncontrollable other factors. To account for this, the researcher may explain this result to the nature of integrated learning that combines online learning with the traditional instruction, the method with which female students were less familiarized in their study of language skills course. The integrated learning strategy encouraged female learners to interact with the instructional content positively, taking into account that the content was delivered through educational platforms in novel styles and formats or using video clips, live videos, PowerPoint slides or discussion on electronic forums. These varied instructional mediums motivated female students to learn language skills vividly and interactively, especially those learners who feel low self-confident, or shy when it comes to express themselves in traditional teaching. This weakness can be reduced by encouraging participation on the electronic forums delivered through online learning and other educational platforms and enhance expressing self freely without shy among female learners. Further, the researcher may attribute this result to the advantage of integrated learning in assisting self-learning by female students of the language skills without feeling restricted with time or place and also learn at their own pace in commensurate with their abilities to learn. So, the integrated learning strategy supports learning far away from time and place restrictions and enhances learning based on individual interest and ability. These outcomes are consistent with the results of studies conducted at the University of Jordan, such as study that demonstrated the effect of integrated teaching strategy on English achievement among the University of Jordan students with effect size being (72 per cent). In addition, the result from the current. The research is in contract with that also confirmed the effect of the integrated learning strategy on Jordan's Geography achievement among University of Jordan students with effect size being (41 per cent). Comparatively, the effect size of the integrated learning in this study was (12.7 per cent) which could be due to its limitations. Its results are also consistent with the results of the study which showed the impact of integrated teaching in the achievement of IT courses by university of Jordan students. This result is in deal with the results of other studies conducted in other universities such as the study of Oweis (2017), which showed the impact of integrated learning in enhancing the achievement of English language courses among German Jordanian university students. Its results are also in consistent with the results of Eltahir which were conducted at Ajman University, the results showed that the experimental and control groups had statistically significant differences on behalf of the experimental group's instructional methods.

## 6 Recommendations

According to the results from the current study, the researcher suggested the following:

- 1) Language skills courses are best taught using the integrated learning strategy.
- 2) Different training courses need to be held for the faculties in active employment of integrated learning strategy in language skills class and other courses involved in childhood education discipline.
- 3) Similar studies involving other courses taught under childhood education discipline and other variables are encouraged.

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