

# The Effect of Using Microsoft Teams on Development of Social Communication Skills and Motivation towards Learning among Students at the University of Jordan

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## Abstract

The present study aimed to examine the impact of Microsoft Teams on the enhancement of social communication skills and motivation towards learning among students enrolled at the University of Jordan. A quasi-experimental design was employed in this study, with a total of 88 male and female students divided into two groups. The participants were deliberately selected and allocated at random. An experimental group consisting of 46 male and female students was formed using the Microsoft Teams application, while a control group consisting of 42 male and female students from the School of Educational Sciences at the University of Jordan during the first semester of 2022/2023 was formed using the traditional method. The scale of social communication skills consisted of (45) items, and the scale of motivation towards learning consisted of (25) items. The study tools have been applied to the study sample and to ensure their validity and stability. The findings indicated that there were statistically significant disparities in the average scores of students on the social communication skills and motivation towards learning scales after the assessment. These disparities were solely attributed to the teaching method variable and were found to be in favor of the experimental group that utilized the Microsoft Teams application. The study proposed utilizing the Microsoft Teams application for distance learning, extending its use to other educational courses and all post-secondary educational levels, redesigning study materials to be compatible with the Microsoft Teams application, encouraging instructors and course coordinators to create educational content tailored to the requirements of e-Learning and interactive multimedia, and organizing training courses for instructors on its use.

**Keywords:** Microsoft Teams; Social Communication Skills; Motivation towards Learning; The University of Jordan.

## 1. Introduction

Contemporary society is undergoing numerous changes and experiencing fast advancements in multiple domains, with information and communications technology and educational platforms, such as Microsoft Teams and social networking sites via the Internet, being the most notable examples, which made the educational process more flexible, enjoyable, and a way to improve learners, raise their motivation level towards learning, and achieve educational goals. This led to the emergence of a more advanced learning educational environment, interacting from the regular education environment, and facilitating the process of communication between instructors and their students, as well as the ease of communication with their peers. Consequently, several activities and services, including the educational process, were significantly impacted. Subsequently, the notion of "e-Learning" arose, which relies on multimedia processes to provide instructional material to learners in a beneficial and engaging way (Al-Anzi, 2021).

Conversely, the severe conditions experienced by the world in recent years, such as the global spread of COVID-19, compelled educational institutions to shift to e-Learning using various visual communication applications. The most renowned among these applications is Microsoft Teams, which serves as a suitable alternative to ensure the uninterrupted progress of the teaching-learning process. This program serves as a crucial platform for facilitating integrated communication. It is a variant of Microsoft Office that enables users to engage in chat and conduct classroom sessions using video technology (Sobaih, Salem, Hasnien, & Elnasr, 2021; Al-Shboul, et al., 2023a).

Many educational platforms and applications played the role of mediator between the student, the instructor, and educational institutions, which have saved travel time and facilitated the learning process in times when communication cannot take place directly. as well as in times similar to the year 2020 with the spread of the Corona epidemic at that time. Many of these applications spread even after the end of the pandemic, and among them was the Microsoft Teams application, which is still widespread and used today in educational institutions in Jordan because of its high ability to conduct interactive classes in a distinct manner (Al-Thuwaini, 2021).

The Microsoft Teams platform is one of the most important modern platforms that was officially released in 2017 by Microsoft. The application is distinguished as an effective tool for managing a large number of students. It provides the function of automatic recording of lectures and educational sessions, and the updating process for this application is carried out periodically by the company that developed it, and it is supported with new functions that serve the user and increase motivation to use it. In addition, the application provides connectivity with e-mail and smooth communication between students and instructors (Ismail & Ismail, 2021).

Social communication skills have a positive impact on building the learner's personality, enhancing his self-confidence, and enabling him to interact with the social environment surrounding him, making him more cooperative and interactive and able to express his opinion and communicate without restrictions that prevent him, such as shyness, fear, hesitation, and weak personality. They also enable him to control his emotions in social situations that he may

encounter in his daily life, reach solutions and be creative in various fields. One of the goals that education seeks is to enhance the spirit of cooperation in the educational environment and encourage interaction and communication among students when the appropriate teaching strategy is used with attention to the extent to which the learner learns the social skill and applies it in real-life, taking into account the use of the skill in the appropriate situation and how to continuously develop it (Abdul Fattah, 2010).

The importance of the learner's motivation in the learning process is evident by trying to find ways to attract the attention of the student towards the scientific subject and increase their motivation towards learning. To achieve this, the instructors link the topic of learning with the interests and experiences of the students and provide activities that meet their needs. Many studies have indicated that using interactive visual communication applications in the educational process motivates students and helps them discover information and educational materials from different angles, thus increasing their motivation to learn using these different technologies (Madi, 2021; El Sayed, 2011; Yuen, Yaoyune & Johnson, 2011).

Based on the above, and due to the potential benefits of using the Microsoft Teams application in achieving educational goals and enhancing the teaching-learning process, this study investigated the effect of using Microsoft Teams on developing social communication skills and motivation towards learning among Bachelor's degree students at the University of Jordan.

### The Study Problem and its Questions

The teaching-learning process in universities, as educational institutions, encounters several obstacles due to the worldwide advancement and accessibility of integrated electronic educational systems. These systems encompass distance learning and e-Learning facilitated by educational platforms and applications, such as Microsoft Teams, educational programs, multimedia integration, and collaboration and interaction among educational institutions using information and communications technology applications.

The contemporary applications in e-Learning settings have significantly contributed to the development of social communication skills and motivation towards learning. However, there are concerns concerning the potential loss of these abilities in the context of distant learning. Given the widespread usage of this program in educational institutions in Jordan during and after the COVID-19 epidemic, the researchers aimed to examine its efficacy and impact on two key factors, important to students.

The incorporation of technology into the teaching-learning process has resulted in a transformation of teaching methodologies and the manifestation of several e-Learning and distant learning approaches. The adoption of electronic educational platforms, such as the Microsoft Teams application, in teaching has presented educational institutions, including universities, with several challenges and issues. The primary concern is to enable students to actively seek knowledge and develop the necessary skills for the teaching and learning process in the twenty-first century. This is in contrast to the traditional methods, strategies, and teaching approaches used in regular education. This is particularly relevant in terms of their interaction and alignment with digital learning, blended learning, and flipped learning.

In Jordan, due to the pandemic in 2020, institutions used programs and applications that could compensate for the educational loss because of the absence of face-to-face learning at the time, and the provision of learning in general in educational institutions such as schools and universities. As such, their use in universities increased even after the end of the pandemic, and the focus was on a dimension learning as a goal that achieves the goals of modern education (Al-Shboul, et al., 2023b). Because of these trends and the great use of these applications currently, such as Microsoft Teams in the higher education sector in particular, it is necessary to look at the results of this use of this application and its ability to develop social communication skills and increase motivation towards learning among the student.

The dependence on these applications today in Jordan and focus on the goals of self-learning, as well as raising the academic capabilities and academic achievement results, developing social communication skills, and increasing motivation towards learning, justifies the need to continuously conduct objective studies in this field to identify the actual impact of these applications on higher education institutions, and how to overcome any difficulties or exceed the challenges facing its use.

Many studies like (Al-Shboul, 2024; Al-Sharqawi, 2022; Pal & Vanijja, 2020) indicate that the Microsoft Teams platform is effective for managing a large number of students with the possibility of providing some helpful features to the instructor. The results of these studies have indicated the effectiveness of using the Microsoft Teams application on developing various skills among learners and improving them significantly, as well as in providing an integrated learning environment, as it supports synchronous and asynchronous learning. Due to the novelty of the experience of using these computerized applications and their direct impact on the educational process, many studies have called for more studies to be conducted on the impact of this use in an attempt to determine the positive and negative aspects of it, and to provide suggestions to improve this use, such as the studies of Al-Thuwaini (2021) and Al-Sheikhi (2021).

The present study aimed to examine the impact of utilizing the Microsoft Teams application on the enhancement of social communication skills and motivation towards learning among Bachelor's students enrolled in children's computerized programs at the School of Educational Sciences, University of Jordan. The study sought to address the following research questions:

1. What is the impact of utilizing the Microsoft Teams application on the enhancement of social communication abilities among undergraduate students enrolled in computerized academic programs for children at the School of Educational Sciences, University of Jordan?
2. To what extent does the use of the Microsoft Teams application impact the motivation levels of undergraduate students in the School of Educational Sciences at the University of Jordan towards studying computerized programs for children?

### Significance of the Study

The significance of the study is in its provision of a practical foundation and initial findings for educated use of contemporary technology applications. Furthermore, the study serves as a valuable resource for educational departments in universities to understand the influence of these contemporary applications on fundamental skills in the context of the knowledge economy and

digital content. It also explores how to adapt these applications, if feasible, to enhance their effectiveness in education and improve the teaching-learning process during course preparation. This, in turn, can contribute to the development of instructors and learners' capabilities in Jordanian universities when using modern teaching methods.

## **2. Theoretical Framework and Previous Relevant Studies**

This part of the study deals with the theoretical framework for the themes of the study, and reviews previous studies related to these topics.

### **First: The Theoretical Framework**

This part of the study includes a presentation of theoretical literature and previous studies related to the subject of the study and its variables:

#### **Microsoft Teams Application**

Digital learning is the modern form of distance education that relies on modern information and communications technology based on the Internet to include all forms of education based on separating the instructor from the learner in space and time using different means of communication. These means include multimedia education, digital research mechanisms, and website portals, digital libraries, social media, and synchronous and asynchronous interactive platforms, such as Microsoft Teams, which aim to deliver information to learners as quickly as possible, at a lower cost, and in a way that enables the educational process to be managed and controlled, and instructors' performance measured and evaluated through it (Al-Anezi, 2021).

Microsoft Teams can be used for many purposes, and among its most important uses are (Ahmad, 2021):

1. Remote Communication and Cooperation: Microsoft Times can be used to communicate and cooperate between team members, organize meetings and discussions online, and file sharing and content remotely.
2. Project Management: Microsoft Times can be used to manage projects, regulate tasks and due dates, and determine responsibilities.
3. Teamwork: Microsoft Teams can be used to work collaboratively on shared documents and files and add comments and edits.
4. Distance Education: Microsoft Teams can be used for distance education and organizing lessons, lectures, tests, and homework.
5. Virtual Meetings: Microsoft Teams can be used to organize: virtual meetings, audio and video conversations, and provide an interactive environment for participants.
6. Technical Support: Microsoft Teams can be used to provide technical support to customers and provide answers to questions related to products and services.

7. General Use: Microsoft Teams can be used for general use, such as talking with friends and family, and making voice and video calls over the Internet.

Microsoft Teams is used in teaching as follows (Al-Thuwaini, 2021):

1. Live Lessons: Instructors can deliver live lessons on Microsoft Teams using audio, video, and screen sharing mode, and students can listen, participate, and interact with the instructor.
2. Chat Groups: Instructors can create chat groups for students, share study materials and various documents, and communicate with students.
3. Tasks and Assignments: Instructors can create tasks and assignments on Microsoft Teams and assign them to students, and students can deliver completed homework and obtain comments from the instructor.
4. Collaborative Learning: Instructors can encourage collaborative learning by creating teams on Microsoft Teams, working together on different projects and sharing knowledge and experiences.
5. Tests and Exams: Instructors can create tests and exams on Microsoft Teams and assign them to students, and instructors can correct answers and give feedback on the results.
6. In short, Microsoft Teams can be used in a distance learning process to facilitate communication and cooperation between instructors and students, and to facilitate lessons management, assignments, tests, and exams.

### Social Communication Skills

Social communication has been defined as: the process through which ideas and information are exchanged with others, provided that the basic elements are present in that process, which are: the sender, the receiver, the mediator, and the content of the message. Communication can be either verbal, non-verbal, or both (Al-Dilaeen, 2013). Zaed (2014) defines it as: life skills through which students interact and cooperate with others in various situations in a positive way, and form positive social relationships with them, which leads to them assuming responsibility and facing various life pressures in a society with common interests.

Therefore, the social communication process is not only limited to talking to others, but other aspects must be realized, such as exchanging ideas, information, good discussion with the opposite person, listening to him, not boycotting him, respecting his views, and touching on valuable topics. Also, speech should be mature and beneficial, taking into account the tone of the voice when speaking and paying attention to the words, as well as not underestimating the body language because of its effective effect on others (Abu Yassin, 2010).

The impact of the educational experiences that the student is going through in the school environment in developing his social skills is highlighted in terms of building a correct normal relationship between his instructor and his colleagues, as well as the skills of cooperative learning through his abilities to face different collective educational situations in groups. Therefore,

negative educational experiences and the low level of school affect the concept of the self, and hinders the student's ability to form social relationships with others (Al-Hamdan, 2016).

Okasha and Abdul Majeed (2012) have defined communication skills as: behavioral patterns that show the individual's possession of: emotional control skills, responsibility, and self-realization when he interacts with others in a position in a way that is appropriate to that position, which is represented in the individual's cooperation, sympathy, and his verbal and non-verbal communication. They include four sub-skills: the skill of communicating with others, the skill of building positive relations with others and preserving these relationships, the skill of participation in making decisions, and the skill of confronting embarrassing situations and the individual's self-control when he encounters the embarrassing situations.

Al-Husami (2019) pointed out a number of social communication skills that students must possess, including:

- **Communication skills with the Content:** The principle of communication is based on the extent of the student's interaction and communication with the content, such as reading, listening, and the student's entry into multiple and different paths as part of the interaction process. Attention must be paid when designing the course to create a stimulating environment for learning through which the student can build meaningful learning related to the educational content and new knowledge. For example, after completing the class meeting, the instructor asks the student to complete the duties required of him, participate in a double interaction activity, whereby the instructor asking a question and requesting the students to express their point of view while respecting the points of view of their other colleagues, and giving the student the opportunity to discuss via live platforms, and read the educational content related to the lesson.
- **Communication Skills with the Lecturer:** These skills are related to the learner's ability to be aware of the atmosphere prevailing in the classroom that contributes to improving his ability to succeed in the educational subject, and to take into account the notes and warnings received from his instructor. They also include the ability to: pay attention, focus, communicate, and control aspects of learning in the best way. These skills include the following sub-skills: a good social and spiritual relationship between the student and his instructor, which is far from personal benefit. It also provides a lively classroom environment in which positive social relations prevail between the students and the instructor, where the instructor supports democracy and encourages: freedom of expression, expressing opinion, and activating discussions without violating the boundaries of others. Moreover, students should accept and respect the instructor's opinion, follow up with the instructor's educational duties and required tasks, and accept the course/subject instructor's correction of assignments.
- **Communication Skills with Colleagues (Fellow Students):** These are the skills that relate to the learner's ability to communicate and interact with his colleagues in an atmosphere full of: mutual respect, trust, satisfaction, cooperation, fair competition, and constructive discussion with them, away from conflicts, in a way that encourages his learning. These skills include the following sub-skills: helping fellow students in the classroom, communicating easily with students, learning in an appropriate atmosphere of privacy away from stress and external noise, feeling satisfied and accepted when students interact, showing mutual respect and

acceptance while communicating and interacting with others, and respecting colleagues' opinions and suggestions during discussions.

Al-Khawaldeh (2020) believes that social communication skills and learning complete each other and cannot be separated, so that the learning process cannot occur in the social context without a basic means, namely social communication skills, to activate learning.

### Motivation Towards Learning

Motivation towards learning is defined from a cognitive point of view as: an internal state that moves the learner's thoughts, knowledge, cognitive structures, mind, and attention, and urges him to continue performing in order to reach a specific cognitive state. The motivation is the process directed towards motivating the learner and increasing his activity, affecting what is learned, how it is learned, when and how to learn.

The importance of motivation in the educational process is evident in that it is a means that can be used to achieve specific educational goals effectively, by considering it one of the factors determining students' ability to: think, achieve, succeed, and excel. Modern education has realized the importance of having motivation among students to drive them to learn, and therefore it focused on the need to provide students with the opportunity to participate in choosing topics and problems that affect important aspects of their lives. It also focused on the need to distribute responsibilities to students so that each of them feels the presence of a real motivation that drives him to learn (Hajj Musa, 2015).

Stimulating and developing students' motivation towards learning is done by linking the content of academic subjects to their current and future needs, benefiting from and investing in their existing inclinations and interests, encouraging them to use their mistakes constructively, setting learning goals instead of performance goals, as well as encouraging them to set difficult goals that can be accomplished with a reasonable amount of challenge. The motivation towards learning is represented by students' engagement for the longest possible time in learning and commitment to the educational process (Baqi'i, (2012).

The process of improving motivation towards learning is considered one of the problems that continues to occupy the minds of researchers and specialists, especially regarding how to ensure that the majority of students reach high and advanced levels of education, and therefore avoid the phenomenon of low academic achievement. This phenomenon has reached a point that requires new thinking and fast and effective intervention using various means and pedagogical methods for the purpose of providing appropriate solutions to reduce its negative impact on the qualitative and quantitative assessment of the educational system through accurate and comprehensive diagnosis of the phenomenon.

Therefore, we often find some learners with low abilities who are distinguished by their high academic achievement, while we see other learners with high intelligence, but their academic achievement is low; the main factor in such cases is often high motivation for learning or its decrease (Ben Moussa, 2017).



## Second: Previous Studies

A comprehensive review of several papers pertaining to the present research topic has been conducted by the researchers. The following is a chronological summary of these studies:

Al-Shboul (2024) An investigation was undertaken to assess the impact of utilizing Microsoft Teams on academic performance and self-directed learning abilities among undergraduate students in the School of Educational Sciences at the University of Jordan. The results of the study showed that there were statistically significant differences between the means of degrees of achievement and the degrees of self-learning skills measured due to the variable method of teaching and in favor of the experimental group taught using Microsoft Teams.

An analysis of the challenges faced by the State of Kuwait in implementing e-Learning via the Microsoft Teams platform during the COVID-19 pandemic. The findings indicated that most learners do not encounter challenges in electronic education as a method of teaching and learning. However, some limiting factors were insufficient technological resources and Internet speed in households, as well as a lack of prior training in using Microsoft Teams platform tools.

Al-Nassar (2021) This study was undertaken to identify the barriers to the implementation of e-Learning using the Microsoft Teams platform in the State of Kuwait during the COVID-19 pandemic. The findings indicated that most learners do not encounter challenges in electronic education as a method of teaching and learning. However, some limiting factors were insufficient technological resources and Internet speed in households, as well as a lack of prior training in using Microsoft Teams platform tools.

Wijayanto et al. (2021) A study was undertaken to investigate the effects of utilizing Microsoft Teams 365 as a substitute for distant learning platforms during the Corona epidemic for acquiring the Indonesian language. The empirical findings indicate that the Microsoft Teams program has shown favorable outcomes in enhancing the learning and teaching process, not only in the context of Indonesian language acquisition, but also across several educational domains.

Wea and Kuki (2021) This study was undertaken with the objective of ascertaining the perspectives of students on online learning utilizing the Microsoft Teams program at the University of Nusa Nepa (UNIPA) in Indonesia throughout the Corona epidemic. The study sample comprised 176 students who were enrolled in the Faculty of Teachers and Education (FKIP). The findings indicated that students see the Microsoft Teams program favorably and are able to engage in the online learning process, similar to the traditional live learning approach.

Ismail and Ismail (2021) This study was undertaken to investigate the effects of the teaching method utilizing the Microsoft Teams program on the challenges encountered in the online learning setting. The research employed a quantitative methodology and included a sample of 154 university students who were enrolled in the software engineering program at the Malaysian Private University. The findings indicated that the majority of students had no challenges in utilizing the Microsoft Teams program in terms of time management or navigation. Furthermore, they expressed a sense of ease and satisfaction when using it.

Al-Khawaldeh (2020) conducted a study aimed at revealing the effect of using an educational program based on social skills in acquiring social communication skills among tenth grade

female students in the subject of national and civic education. The researcher relied on the quasi-experimental approach, and the study sample consisted of (92) female students from the Princess Basma School, which is affiliated with the Directorate of University Education in Amman, in the first semester of (2020/2021). Moreover, (44) female students were assigned to the experimental group and (48) female students were assigned to the control group using a simple random method. To achieve the objectives of the study, an educational program was built based on Social skills in teaching the subject of Social Education to tenth grade female students and a scale of social communication skills. The results of the study showed a statistically significant effect of using the educational program based on social skills in improving the level of social communication skills.

Al-Alameri et al. (2020) An investigation was undertaken to ascertain the perspectives of students at the University of Jordan regarding e-Learning platforms (Microsoft Teams, Moodle, and Zoom platforms) and their correlation with self-study and academic performance during the Corona epidemic. The present study investigated the perspectives of students at the University of Jordan regarding e-Learning utilizing digital learning platforms, including Microsoft Teams, Moodle, and Zoom. The study also examined students' understanding of how these platforms enhance self-directed learning and academic achievement. The sample included 450 male and female students. The poll also assessed students' views on the use of e-Learning at the institution and their critiques of the challenges encountered in adopting e-Learning through digital platforms. The findings indicate that students hold a favorable view of the e-Learning apps implemented at the institution. Moreover, their academic achievements have been significantly impacted by the utilization of these electronic platforms during the Corona epidemic.

### **3. Study Methodology**

The study employed a quasi-experimental study design with two groups: the control group and the experimental group. The experimental group was taught using the Microsoft Teams application, while the control group was taught using the traditional method. The objective of this study was to investigate the impact of using the Microsoft Teams application on the development of social communication and motivation skills in the context of computerized programs for bachelor's students at the School of Educational Sciences at the University of Jordan.

#### **The Study Sample**

The research sample comprised 88 male and female undergraduate students pursuing a bachelor's degree in the School of Educational Sciences at the University of Jordan. The students were separated into two subsections of the children's computerized programming course. The participants were deliberately selected and allocated at random. One group, comprising 46 male and female students, was assigned to the experimental group that received instruction using the Microsoft Teams application. The other group, consisting of 42 male and female students, was assigned to the control group that received instruction using the conventional method. This separation occurred during the first semester of 2022/2023.

## Study Tools

In this study, two measurement tools were designed and developed, namely: (the Scales of Social Communication Skills and the Motivation to Learning).

### The First Study Tool: The Scale of Social Communication Skills

To reveal the effect of the use of the Microsoft Teams application on the social communication skills of bachelor's students at the School of Educational Sciences at the University of Jordan, a scale was developed to collect the necessary data to study and answer its questions, by relying on the scales used in the study of both Al-Khawaldeh (2020), Al-Husami (2019), and Al-Zaboun (2018). The tool consisted in its final form of (45) items, Formulated in accordance with the unit's requirements timetable for the categorization of children's computerized programs, this course is designed to instruct bachelor's students at the School of Educational Sciences at the University of Jordan.

However, the scale was divided into three fields: The first domain: related to communication skills with content, as it consisted of (15) items. The second domain: related to communication skills with the lecturer, as it consisted of (15) items. The third domain: related to communication skills with fellow students, which consisted of (15) items.

All items of the scale were designed using a five-point Likert scale that included the following scores: strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1), and in the event of negative items, the alternatives for those items have been reversed.

In order to assess the accuracy of the social communication skills scale, it was initially presented to a panel of eight arbitrators/reviewers who specialize in curricula and instruction, educational technology, measurement and evaluation. These arbitrators/reviewers were selected from faculty members at the School of Educational Sciences at the University of Jordan. The opinions and comments of the arbitrators/reviewers were considered, and the recommended changes were made to develop the final version of the instrument. To establish the construct validity of the social communication skills scale, we computed the Pearson correlation coefficient between the individual items and the overall score of the scale. The findings indicated a strong and statistically significant association ( $\alpha = 0.05$ ) between each item and the overall score of the scale, since all values were high. The range of internal consistency validity scores from 0.245 to 0.781 is deemed high and appropriate for the objectives of this study (Cohen, Manion, & Morrison, 2017).

In order to assess the reliability of the social communication skills scale, it was administered to a cohort of 30 male and female students enrolled in computerized programs for children, both from the present research community and from individuals outside of its sample. The implementation was iterated with a two-week time gap between each iteration, and the stability of the repetition was assessed by calculations of the Pearson correlation coefficient between the two implementations. The total stability coefficient of the scale was determined to be 0.903 using the internal consistency approach and the use of the Cronbach alpha equation. This approach yielded an overall stability coefficient of 0.886. The values reported are deemed to be high and satisfactory for the objectives of this investigation (Cohen, Manion, & Morrison, 2017).

The pre-measure social communication skills scale was analyzed using arithmetic means and standard deviations to establish equality between the two groups. Subsequently, a t-test for independent samples was conducted on the pre-measure of the scale. The findings are presented in Table 1 below:

Table (1) Arithmetic means and t-test for independent samples on the pre-measure of the scale of social communication skills

Group	Number	Arithmetic Mean	Standard Deviation	Calculated (T) Value	Significance Level
Experimental	46	118.30	23.12	1.040	0.301
Control	42	113.50	19.90		

Based on Table 1, the calculated value of (t) for the total score of the pre-measure scale of social communication skills was 1.040, with a significance level of 0.301. This indicates that there are no statistically significant differences between the experimental and control groups in the total score for the scale of social communication skills at the significance level of  $\alpha = 0.05$ . This implies that the two groups were equivalent before to the commencement of the study.

The Second Study Tool: The Scale of Motivation Towards Learning

To achieve the objectives of the study, the researchers prepared and developed a scale to measure students' motivation towards learning after reviewing the relevant theoretical literature, such as the studies of (Ismail & Ismail, 2021; Al-Rufu', 2015; Baqi'i, 2012; and Ben Youssef, 2007), and previous relevant studies, such as the studies of (Al-Husami, 2019; Mohammad, 2018; and Ben Moussa, 2017). In its initial form, the scale consisted of (28) items according to a five-point Likert classification, with each item followed by a five-point grading of motivation, according to the following distribution: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). The scale was reversed: (1, 2, 3, 4, 5) when conducting the statistical analysis process for the negatively worded items.

In addition, the researchers adopted three levels to estimate students' motivation towards learning in the course of children's computerized programs, as follows: The first level: low if the estimate falls within the category of (1-2.33). The second level: moderate if the estimate falls within the category of (2.34-3.67). The third level: high if the estimate falls within the category of (3.68-5).

In order to confirm the apparent accuracy of the motivation scale, the researchers submitted it in its original state to a panel of eight arbitrators/reviewers who possess knowledge in the areas of educational technology, curricula and instruction, measurement and evaluation, and course instructors. Their purpose was to provide their professional opinion on the scale. The scale was adjusted based on the consensus of the majority of arbitrators/evaluators, reached at an agreement rate of 80%, resulting in the final version of the instrument comprising 25 items.

In order to assess the construct validity of the motivation scale, we investigated its internal consistency validity by computing the Pearson correlation coefficient between the individual items and the overall score of the scale. The correlation coefficients revealed a weak positive association between each item and the total score of the scale, ranging from 0.311 to 0.670, at a significance level of  $\alpha = 0.05$ . The found values are deemed to be high and satisfactory for the objectives of this study, and demonstrate the construct validity of the scale (Odeh, 2014).

In order to assess the reliability of the motivation measure, it was administered to a cohort of 30 male and female students who were enrolled in children's computerized programs. These students were selected from both the study population and those outside of its sample. The implementation was iterated every two weeks, and the stability coefficient of the repetition was determined by calculating a Pearson correlation coefficient between the two implementation sessions. An overall stability coefficient of 0.776 was observed for the scale. The stability was determined by employing the internal consistency approach and the Cronbach alpha mathematical formula. Using this approach, the stability coefficient was determined to be 0.802. The values reported are deemed to be high and satisfactory for the objectives of this investigation (Cohen, Manion, & Morrison, 2017).

In order to establish comparable scores between the two groups on the pre-measure of the motivation scale, we calculated the arithmetic means and standard deviations. Subsequently, we conducted a t-test on the independent samples to compare their results. The findings are presented in Table 2 below:

Table (2) Arithmetic means and t-test of independent samples on the pre-measure of the motivation scale

Group	Number	Arithmetic Mean	Standard Deviation	Calculated (T) Value	Significance Level
Experimental	46	83.15	18.30	1.184	0.240
Control	42	78.57	17.95		

According to Table (2), the calculated value of (t) for the total score of the pre-measure motivation scale was 1.184, with a significance level of 0.240. This indicates that there are no statistically significant differences between the experimental and control groups in the total score of the motivation scale at the significance level of  $\alpha = 0.05$ . This implies that the two groups were equivalent before to the commencement of the experiments.

#### 4. Results and Discussion

This section presents the findings of the study carried out to examine the impact of using the Microsoft Teams application on the development of social communication skills and motivation towards learning among bachelor's students at the School of Educational Sciences, University of Jordan. This article aims to address the following two primary inquiries:

Firstly, the results about the impact of using the Microsoft Teams application on the development of social communication skills in the children's computerized programs course for bachelor's students at the School of Educational Sciences at the University of Jordan are presented.

In order to address the initial inquiry of the research, the arithmetic means and standard deviations were computed for the performance of the participants in the two groups on the social communication skills scale before and after the measurement. The resulting findings are presented in Table (3).

Table (3) Arithmetic means and standard deviations of the performance of the study individuals in the two groups on the total score of the scale of social communication skills pre-measure and post-measure

Group	Number	Maximum End	Pre-Measure		Post-Measure	
			Arithmetic Mean	Standard Deviation	Arithmetic Mean	Standard Deviation
Experimental	46	225	118.30	23.12	176.74	15.86
Control	42		113.50	19.90	131.26	36.39
Total	88		116.01	21.66	155.03	35.72

Table (3) reveals a noticeable disparity in the average scores of the study groups on the post-measure of the social communication skills scale. The experimental group, which used the Microsoft Teams application, had a mean score of 176.74, while the control group had a lower mean score of 131.26. In order to confirm that the difference between the means of both groups, which was 45.48, met the statistical threshold of significance ( $\alpha = 0.05$ ), we conducted a One-Way ANCOVA analysis of covariance, as shown in Table 4:

Table (4) The results of the associated analysis of covariance (One-Way ANCOVA) for the differences in the performance of individuals of the study for both groups in the total degree of the scale of social communication skills post-measure

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Sum of Squares	(P) Value	Significance Level	Eta Squared Value
Pre-measurement of the Scale	3372.567	1	3372.567	4.607	0.035	
Group	47624.68	1	47624.681	65.052	0.000	0.434
Error	62228.42	85	732.099			
Adjusted Total	111006.9	87				

Table (4) demonstrates a statistically significant difference in the performance of participants in both groups regarding the total score of the social communication skills scale post-measure, as evidenced by the calculated (P) value of (65.052), which is significant at the (0.000) level. Therefore, the first null hypothesis, which asserts: “There are no statistically significant differences at the level of significance ( $\alpha = 0.05$ ) between the means of the performance of the experimental and control groups on the scale of social communication skills in the course of children’s computerized programs among bachelor’s students in the School of Educational Sciences at the University of Jordan attributed to the teaching method (using the Microsoft Teams application and the traditional method).”

To identify the cause of the disparity which favors the mean of either of the two groups, we computed the two adjusted arithmetic means and their corresponding standard errors for the performance of the study participants in both groups on the overall score of the social communication skills scale after the measurement. Analysis revealed that the adjusted arithmetic mean of the experimental group, which was 177.40, was preferred above the adjusted arithmetic mean of the control group, which was 130.54, with a difference of 46.86. The findings of this study validate the presence of a correlation between the use of the Microsoft Teams application and the overall score of the social communication skills scale in computerized programs for children among bachelor’s students at the School of Educational Sciences at the University of Jordan.

The derived Eta-squared value of 0.434 indicates the magnitude of the impact generated by the use of the Microsoft Teams application on the overall score of the scale measuring social communication skills in children's computerized programs. This coefficient indicates that 43.4% of the variability in social communication skills may be attributed to the utilization of the Microsoft Teams program. The remaining 56.6% of the variability in social communication skills may be attributed to other factors that were not examined in this study.

Furthermore, arithmetic means and standard deviations were computed for the performance of the research participants in both groups on the three abilities of the social communication skills scale before and after the data collection, which were shown in the following Table (5):

Table (5) Arithmetic means and standard deviations of the performance of the study individuals in both groups on the three skills of the scale of social communication pre-measure and post-measure

Skills	Group	Number	Maximum End	Pre-Measure		Post-Measure	
				Arithmetic Mean	Standard Deviation	Arithmetic Mean	Standard Deviation
Communication with Content	Experimental	46	75	37.93	8.73	58.65	5.96
	Control	42		37.00	6.77	45.19	10.81
	Total	88		37.49	7.83	52.23	10.92
Communication with the Lecturer	Experimental	46	75	39.09	11.20	57.67	6.73
	Control	42		38.43	9.45	43.69	13.07
	Total	88		38.77	10.35	51.00	12.38
Communication with Fellow Students	Experimental	46	75	41.28	11.87	60.41	4.98
	Control	42		38.07	12.17	42.38	14.56
	Total	88		39.75	12.05	51.81	13.96

Table (5) indicates an apparent difference between the two means of study groups, as the experimental group obtained (58.65) in the skill of communicating with the content as a mean score, while the control group obtained (45.19) as a mean score. The experimental group also obtained (57.67) in the skill of communicating with the lecturer as a mean score, while the control group obtained (43.69) as a mean score. In addition, the experimental group obtained (60.41) in the skill of communicating with fellow students as a mean score, while the control group obtained (42.38) as a mean score. A Multivariate Analysis of Covariance (MANCOVA) was conducted to determine the statistical significance of the differences between the means of both study groups at a significance level of  $\alpha = 0.05$ . The HOTTELLING test was also employed for this analysis. The results of the analysis are presented in Table (6):

Table (6) Results of the HOTTELLING test for differences between the performance of the study individuals in both groups on the three skills of the scale of social communication post-measure

Variable	Value	(P) Test	Degrees of Freedom	Significance Level
Teaching Method	0.521	24.835	3.000	0.000

The statistical analysis of Table (6) reveals significant differences in the performance of individuals in both groups on the three skills of the social communication scale post-measure. This is evident from the (P) test value of 24,835, which is classified as significant at a level of 0.000. To identify the skills where variations were seen, a dependent Multivariate study of Covariance (MANCOVA) was conducted. The findings of the study are presented in Table (7):

Table (7) dependent Multivariate Analysis of Covariance (MANCOVA) for differences in the performance of study individuals in both groups on the three skills of the scale of social communication skills post-measure

Source of Variance	Skill	Sum of Squares	Degrees of Freedom	Mean Sum of Squares	(P) Value	Significance Level	Eta Squared Value
Communication with Content Pre-Measure	Communication with Content	39.921	1	39.921	0.604	0.439	
	Communication with the Lecturer	18.563	1	18.563	0.202	0.654	
	Communication with Fellow Students	59.027	1	59.027	0.537	0.466	
Communication with Lecturer Pre-Measure	Communication with Content	98.597	1	98.597	1.491	0.225	
	Communication with the Lecturer	377.170	1	377.170	4.108	0.046	
	Communication with Fellow Students	31.907	1	31.907	0.290	0.591	
Communication with Fellow Students Pre-Measure	Communication with Content	549.798	1	549.798	8.316	0.005	
	Communication with the Lecturer	1071.260	1	1071.260	11.667	0.001	
	Communication with Fellow Students	239.619	1	239.619	2.180	0.144	
Teaching Method	Communication with Content	4485.525	1	4485.525	67.843	0.000	0.450
	Communication with the Lecturer	5042.504	1	5042.504	54.920	0.000	0.398
	Communication with Fellow Students	7241.208	1	7241.208	65.879	0.000	0.443
Error	Communication with Content	5487.656	83	66.116			
	Communication with the Lecturer	7620.745	83	91.816			
	Communication with Fellow Students	9123.046	83	109.916			
Adjusted Total	Communication with Content	10369.455	87				
	Communication with the Lecturer	13334.000	87				
	Communication with Fellow Students	16945.716	87				

Table (7) indicates a statistically significant difference in the performance of the individuals of the study in both groups in the three social communication skills post-measure. According to the calculated (P) values, the skill of communicating with the content was (67.843), which is significant at the level of (0,000). The skill of communicating with the lecturer was (54,920), at a significant level of (0.,000). The skill of communication with fellow students was (65,879), at a significance level of (0.000), which indicates the existence of statistically significant differences between the means of the performance of the study individuals in both groups in the three skills of the scale of social communication skills post-measure. In order to determine in favor of which group the difference was, adjusted arithmetic means were extracted for the performance of the study individuals in both groups in the three skills of the scale of social communication skills post-measure, and Table (8) shows those means:



Table (8) modified arithmetic means and standard errors of the performance of the study members in both groups in the three skills of the scale of social communication skills post-measure

Skill	Group	Number	Maximum End	Adjusted Arithmetic Mean	Standard Error
Communication with Content	Experimental	46	75	59.26	1.22
	Control	42		44.53	1.28
Communication with the Lecturer	Experimental	46	75	58.45	1.43
	Control	42		42.84	1.50
Communication with Fellow Students	Experimental	46	75	60.74	1.57
	Control	42		42.03	1.64

The data presented in Table 8 shows that the adjusted arithmetic means of the performance of the study participants in both groups for the three skills of the scale of social communication skills post-measure were slightly different. Specifically, the experimental group achieved an adjusted arithmetic mean of 59.26 in the skill of communicating with the content, while the control group obtained an adjusted arithmetic mean of 44.53. Additionally, the experimental group achieved an adjusted arithmetic mean of 58.45 in the competence of interacting with the lecturer, Furthermore, the control group achieved an adjusted arithmetic mean of 42.84. Furthermore, the experimental group achieved a mean score of 60.74 in the competence of talking with fellow students, whereas the control group had a mean score of 42.03. This result validates the impact of using the Microsoft Teams application on the three aspects of the social communication skills scale among bachelor's students in the School of Educational Sciences at the University of Jordan taking computerized programs for children.

Explicit eta squared values were obtained to quantify the impact of utilizing the Microsoft Teams program on each of the three abilities of the social communication skills scale. (0.450) for the skill of communicating with the content, (0.398) for the skill of communicating with the lecturer, and (0.443) for the skill of communicating with fellow students. The provided results indicate the proportions of variability seen in these three abilities due to the utilization of the Microsoft Teams program.

Second: The results pertain to the findings of the second research question, which investigated the impact of using the Microsoft Teams application on the motivation of bachelor's students in the School of Educational Sciences at the University of Jordan towards learning the course of children's computerized programs.

To address the second research question, we computed the arithmetic means and standard deviations for the performance of the participants in both groups on the scale measuring their motivation towards learning the course of children's computerized programs before and after the study. The Results of this analysis are presented in Table 9.

Table (9) Arithmetic means and standard deviations of the performance of the study individuals in both groups on the scale of motivation towards learning the course of children's computerized program pre-measure and post-measure

Group	Number	Maximum End	Pre-Measure		Post-Measure	
			Arithmetic Mean	Standard Deviation	Arithmetic Mean	Standard Deviation
Experimental	46	125	83.15	18.30	106.59	8.09
Control	42		78.57	17.95	88.07	9.11

Total	88		80.97	18.18	97.75	12.63
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Table (9) shows a clear disparity in the means of the two study groups on the post-measurement of the scale measuring motivation towards learning the course of children's computerized programs. The experimental group, which used the Microsoft Teams application, had a mean score of 106.59, while the control group had a lower mean score of 88.07. To confirm the statistical significance of the difference between the means of both groups, which was 18.52, at a significance threshold of  $\alpha = 0.05$ , a one-way ANCOVA was performed. The results of this analysis are presented in Table 10.

Table (10) Results of the One-Way ANCOVA for the differences in the performance of the study individuals in both groups on the scale of motivation towards learning the course of children’s computerized programs post-measure

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Sum of Squares	(P) Value	Significance Level	Epta Value
Motivation Scale Pre-Measure	26.712	1	26.712	0.359	0.551	
Group	7293.741	1	7293.741	98.015	0.000	0.536
Error	6325.226	85	74.414			
Adjusted Total	13878.5	87				

Based on the computed (P) value of 98.015, Table (10) shows a statistically significant difference in the performance of the study participants in both groups on the scale of motivation towards studying the course of children's computerized programs post-measure, at a significance level of (0.000). With this result, the second null hypothesis which states: “There are no statistically significant differences at the significance level of ( $\alpha = 0.05$ ) between the means of the performance of the experimental and control groups regarding the motivation towards learning the course of children’s computerized programs among bachelor’s students in the School of Educational Sciences at the University of Jordan, attributed to the teaching method (using the Microsoft Teams application, and the traditional method).”

To identify the cause of the disparity favoring the mean of either of the two groups, we computed the adjusted arithmetic means and their standard errors for the performance of the study participants in both groups on the scale measuring their motivation towards learning the course of children's computerized curriculum after the measurement. The findings revealed that the adjusted arithmetic means for the performance of the study participants in both groups on the scale of motivation towards learning the course of children's computerized programs post-measure were significantly different. The adjusted arithmetic mean of the experimental group was 106.52, which was higher than the adjusted arithmetic mean of the control group, which was 88.15, resulting in a difference of 18.37. The obtained outcome validates the existence of the impact of utilizing the Microsoft Teams application on the desire to learn the computerized software courses for children among undergraduate students at the School of Educational Sciences, University of Jordan.

The Eta-squared value, indicating the magnitude of the impact of using the Microsoft Teams application on motivation towards educational computerized programs for youngsters, was calculated to be 0.536. The reported value indicates that 53.6% of the variation in motivation towards learning the course of children's computerized programs can be attributed to the

utilization of the Microsoft Teams application. The remaining 46.4% of the variation in motivation may be attributed to other factors that were not examined in this study.

## Discussion

The study findings indicate a notable impact on the enhancement of social communication abilities among bachelor's students at the School of Educational Sciences at the University of Jordan across children's computerized programs. This effect is ascribed to the instructional approach employed by the experimental group, which utilized the Microsoft Teams application. Furthermore, the average scores of the students in the group surpass the average scores of the students in the control group who were taught only using the conventional method. This study demonstrates the efficacy of utilizing the Microsoft Teams program in enhancing social communication abilities among undergraduate students at the School of Educational Sciences, University of Jordan.

The researchers ascribe this outcome to the pedagogical approach of utilizing the Microsoft Teams application. The application interface is user-friendly while ensuring robust security and user privacy. Additionally, it enables students to access it freely through their email addresses, allowing them the flexibility to select their preferred language. Furthermore, it is available for installation on computers and smart devices, facilitating interaction among students both inside and outside the classroom. Moreover, it provides immediate notifications on new homework assignments, notes, or reminder messages, accessible at any time and from any location.

The Microsoft Teams application also motivated the student to interact and reach the educational goals of the three domains of the social communication skills previously mentioned. This appeared through the way the instructors and the students deal with their motives and emotions, and the extent of their response when using the possibilities of the application Microsoft Teams and its tools, as Microsoft Teams helped in achieving the academic interaction between students and instructors, and acquiring knowledge and ideas when using the application.

The researchers also attribute the previous results to the students' ability to participate in asking questions and discussing them with each other through direct group chat, and their ability to share files collectively through some of the applications in the Microsoft Teams application, such as: Word, Excel, and PowerPoint, which are saved via the cloud computing provided by the application, through which files are automatically saved, and modifications to the copy are visible to all students. In addition, the application allows students to share content and files and send them to each other, and share the screen with complete flexibility and visibility to everyone, all of which increases students' interaction with their colleagues.

This result is consistent with the studies of Abdul Majeed, Al-Shami, Al-Najiri, and Al-Kandari (2021), as well as Raya (2021) and Al-Khawaldeh (2020), whose results showed the effect of the use of an educational program based on social skills in acquiring social communication skills among students. Also, this study agreed with the results of the studies of Al-Husami (2019) and Ali (2016), whose results showed the impact of social communication platforms on developing the skills of social and educational communication among students. This is consistent with the study of Al-Zaboun (2018), whose results showed the effect of teaching using the electronic courses system (Moodle) on developing the social communication skill among students.

The results indicated statistically significant differences in the mean performance scores of the experimental group and control group in the scale measuring motivation towards learning the course of children's computerized programs among bachelor's students in the School of Educational Sciences at the University of Jordan. The experimental group, using the Microsoft Teams application, obtained higher scores. Therefore, the implementation of Microsoft Teams has a direct impact on students' motivation towards studying, with an effect size of (53.6%), which is a large effect size according to the scale (Cochran, 1977).

The researchers attribute this result to the faculty members' investment in modern educational technological techniques, including the Microsoft Teams application, in the integrated and appropriate manner required of them, as modern educational technological techniques attract students' attention to knowledge, information, and skills presented through them; for example: the possibility of conducting a direct conversation with the instructor or with colleagues, the possibility of discussing a topic directly, and the use of interesting and popular tools for students included within the application, in addition to the elements of suspense and excitement it contains, such as: visual and audio effects, which contribute to a positive impact on students' motivation towards learning.

The investment of modern technological technologies, including the Microsoft Teams application in a virtual educational environment remotely through the use of computers, mobile phones, or electronic screens gives students a feeling and a sense of psychological safety without the shame that constitutes an obstacle to their acquisition of knowledge and skills in the traditional educational environment. In addition, modern technologies increase the students' self-confidence, which gives them courage to express their opinions, express their ideas, and explain them, as well as present: proofs, arguments, and evidence supporting them in an atmosphere of respect and acceptance of the other; these factors contribute to the development of the students' motivation towards learning.

Moreover, the design of educational programs and educational materials through the mediation of modern technological technologies in a scientific, codified, logical and progressive attracts the students' attention towards the teaching and learning process and developing it so that becomes more attractive and exciting, as well as pushing the student to try to identify the new knowledge and skills it contains, which develops the educational process in a more exciting and enjoyable way, which reflects positively on the student's motivation towards learning.

In addition to activating the role of students as the focus of the teaching-learning process in light of the investment of modern educational technological technologies because they have begun to search for knowledge themselves from all forms of electronic and traditional sources, they must practice and participate in many diverse activities that include elements of suspense and excitement, such as: visual and audio effects, and this is what makes them feel active, positive, and effective. The spread of the atmosphere of active participation among students during the integration of modern educational technological techniques, including the Microsoft Teams application, to transfer knowledge and skills to students in a clear and direct manner, contributes to the ease of their acquisition of knowledge and skills, and not being satisfied with the theoretical aspect only, but rather transferring them to the applied aspect. As such, all of these factors contribute to increasing students' motivation towards learning.

Al-Sharqawi (2022) indicated that there is a relationship between motivation and achievement, since the higher the level of motivation toward learning among students, the greater is the level of their achievement and awareness of the importance of what they are doing and the value of their learning. Motivation toward learning, the level of students' performance and productivity, and the high achievement are the result of the methods and ways by which students receive knowledge and skills in educational institutions, and here the role of the instructor appears.

This result agreed with the results of many previous studies in the presence of an effect of modern educational technological techniques, including the Microsoft Teams application, in increasing students' motivation towards learning, such as the studies of: (Al-Sharqawi, 2022, Al-Thuwaini, 2021, Al-Husami, 2019, Muhammad, 2018, and Al-Juhaimi, 2015). Nonetheless, this result differed from the result of the study of Zaghloul (2016) which showed that there was no effect of modern educational technological technologies, including the Microsoft Teams and Zoom applications, in developing students' motivation toward learning.

## 5. Recommendations and Suggestions

Considering the findings of the study, the researchers formulate the following recommendations:

1. Implementing the Microsoft Teams application in appropriate teaching situations (such as distance learning) and integrating it into other educational courses and scientific specializations is recommended because of its evident impact on enhancing students' social communication abilities and boosting their motivation to learn.
2. Organizing training sessions for educators to enhance their proficiency in using the Microsoft Teams program, therefore maximizing its total functionalities.
3. Creating an electronic bank for distinguished lectures in teaching using the Microsoft Teams application, and make them available to students and faculty members.
4. Given its beneficial influence on the educational process in general, it is worthwhile to undertake comparable research studies on other academic disciplines that investigate the impact of utilizing the Microsoft Teams program on other factors, such as reflective thinking, creative thinking, and problem-solving abilities.

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