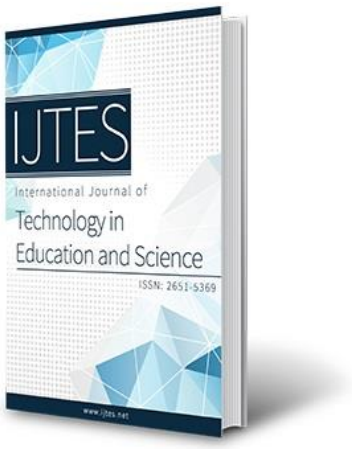

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Abstract

This study seeks to examine University students' perspectives on the use of interactive presentation technologies (namely Classpoint) in order to foster an interactive learning environment and enhance motivation during remote learning. The sample consisted of 66 students who were currently enrolled in undergraduate and graduate programmes at Arab Open University. In order to accomplish the objective of the study, a questionnaire consisting of a 20-item Likert scale was devised to assess the efficacy of employing Classpoint in terms of presentations, classroom engagement, and motivation for remote learning as seen by the students. Furthermore, 14 students were subjected to semi-structured interviews. This study employs a combination of qualitative and quantitative methodologies. The findings indicated that the utilisation of Classpoint resulted in heightened classroom engagement and enhanced students' enthusiasm for remote education. The findings also indicated a strong inclination among students to utilise Classpoint for establishing an engaging learning atmosphere during remote education. Furthermore, there were statistically significant variations in the average scores based on the students' educational level, favouring those enrolled in the master's programme. However, no statistically significant difference was observed based on the students' gender. Moreover, the findings indicated that there were no statistically significant disparities in student motivation for remote learning based on educational level and gender. Additionally, the qualitative analysis revealed a substantial enhancement in student motivation because of using Classpoint.

Introduction

The COVID-19 pandemic has had a significant effect on education, compelling instructors to reassess conventional instructional approaches and adopt innovative technology. Amidst these difficult circumstances, online learning has become a crucial element of the educational domain, and its influence is expected to persist beyond the resolution of the epidemic. The swift shift to online learning has presented several obstacles, such as technological impediments, insufficient access to the Internet, and restricted student involvement. Nevertheless, online learning has demonstrated encouraging outcomes in relation to its adaptability, availability, and individualised instruction. The utilisation of digital technologies has facilitated more adaptability in scheduling,

enabling students to conveniently access educational resources from any location and at any given moment. Furthermore, online learning systems has the capacity to customise learning experiences by offering specialised information that caters to the unique requirements of individual learners (Xiaona, 2023).

The virtual learning environment offers several benefits over the conventional learning environment, as it facilitates the creation and provision of instructional media and resources that can be accessed by students at their convenience, regardless of location. Furthermore, the course content includes essential hyperlinks and comprehensive information on the responsibilities, exercises, and assignments associated with it. These resources encompass videos, PowerPoint presentations, Word documents, Excel files, and other diverse educational materials (Çetinkaya, 2017). Classroom circumstances are facilitated by communication tools that enable interaction and discussion between students and the teacher.

The virtual learning environment prioritises engaging students in the educational process, enhancing their proficiency in utilising diverse communication techniques, and motivating them to utilise the available teaching and learning resources on the Internet. Additionally, it offers the convenience of providing prompt feedback to students (Alnasraween et al., 2020). Almomani et al. (2020a) said that the effectiveness of e-learning environments relies on the utilisation of technological tools and applications, implemented within the proper educational context, to accomplish certain objectives. Mobile devices emerged as a result of the advancements in educational technology and the communications revolution. These devices may be readily acquired and utilised by connecting over the Internet. Users have constant access to data storage, programme downloads, and the efficient use of their functionalities. The rise of mobile learning, sometimes referred to as m-learning, has garnered significant attention both globally and locally. Its use in enhancing e-learning settings is attributed to its many attributes such as effective communication, interactive features, and adaptability (Al-Samdouni, 2015).

The utilisation of digital tools in educational content presentations during distance learning, coupled with the adoption of mobile learning, which offers flexibility and fosters an interactive e-learning environment enriched with multimedia, has facilitated teachers in reducing the time and effort required to teach students. Additionally, it has alleviated students' ennui during remote education (Gamabri, 2015) and facilitated efficient communication between educators and their students across many locations and at any given moment. Furthermore, they are promoting student self-directed learning by engaging with and responding to the asynchronous activities provided by professors (Rahmadi, 2021).

The presentation methods for material have evolved and diversified over time alongside the advancement of contemporary learning strategies. The introduction of computers in education led to the emergence of PowerPoint presentations as a component of Microsoft Office. This software allows users to convert ideas and educational material into visually engaging presentations on a computer screen. These presentations consist of multiple slides with various effects, such as audio, images, colours, animations, and drawings. Users have the ability to control the speed and display time of each slide. These presentations have enhanced the quality of learning and facilitated the attainment of educational objectives by creating electronic lessons and offering an engaging educational setting for learners. Additionally, they provide feedback to students, enabling them to comprehend and enhance

their academic performance based on their individual capabilities (Çetinkaya, 2017).

Prezi is a novel presentation tool that differs from PowerPoint in terms of its characteristics, development, and diversity. It utilises modern techniques and pre-designed templates instead of traditional slides, making it suitable for both presentations and storytelling purposes (Xiaona, 2023). Frames may include an unlimited amount of words, photos, movies, and other material. Additionally, the interfaces can be resized using the visual map. Several studies, including those conducted by Waters (2009) and Bort (2014), have demonstrated that the Prezi tool is among the most effective presenting tools available online, sometimes referred to as the "PowerPoint Killer".

Another application called Nearpod exists (Burton, 2019). This tool enables the instructor to generate interactive presentations with quizzes, polls, and drawings. Students can access and see material presentations or engage in prearranged activities provided by the teacher using their smart devices. The teacher will issue them with an access code for this purpose. This programme facilitates the presentation of lessons in a cooperative learning approach, aiming to stimulate students' engagement in learning through the use of mobile devices. It enables students to actively participate in assigned tasks, assess their own performance and comprehension of the material, and get feedback accordingly (Hakami, 2020).

Bong & Chatterjee (2021) and Almomani et al. (2020b) assert that Classpoint is an ideal instrument for educators seeking to create dynamic and captivating learning experiences that effectively maintain student engagement and focus. Classpoint allows teachers to create dynamic presentations that surpass traditional static slideshows, thanks to its interactive features. The platform's unique attributes, such as interactive quizzes, polls, and surveys, facilitate teachers in evaluating their students' understanding and adapting their teaching methods accordingly.

Classpoint provides a range of collaboration tools that allow students to collaborate on assignments and projects, in addition to its interactive features. The platform enables effortless interaction with other digital resources, such as Google Classroom, facilitating instructors' incorporation of it into their teaching methods. Subsequently, a novel instructional instrument, called Classpoint, has lately emerged. It is a tool that is coordinated with material presentations (Bong & Chatterjee, 2021).

Mobile learning offers several interactive capabilities integrated into PowerPoint slides, enabling the teacher to effectively engage all pupils and get their comments. Classpoint is a supplementary instructional tool designed to operate in sync with the PowerPoint presentation programme installed on a computer. Teaching becomes more successful when using these presentations as they engage students and facilitate their connection with mobile learning through the user-friendly features provided by Classpoint. A portion of these possibilities may be directly applied by teachers during the lesson, while the remaining alternatives need to be prepared in advance before the lecture (www.classpoint.com).

This study highlights the significance of the Classpoint application in facilitating remote classroom engagement among university students and its influence on their motivation towards this mode of learning. As far as we know, past research have not tackled this issue. This article seeks to examine the possible advantages and disadvantages

of using Classpoint in education, encompassing its capacity to augment student involvement, boost learning results, and promote cooperation. Additionally, the researcher will examine the obstacles that educators may have when incorporating this technology into their classrooms, including the need for sufficient training and support. The primary objective of this study is to offer a thorough examination of Classpoint as a tool for augmenting the educational experience and promoting dynamic and cooperative learning.

Problem Statement

Following the transition to distance education, the researcher observed a decline in students' motivation and engagement during lectures, resulting in a diminished comprehension of the study material. This is in spite of the endeavours of educational institutions across various countries globally to establish the essential infrastructure for remote learning and depend on educational platforms to ensure that faculty members concurrently execute the educational process and establish direct channels of communication with students. To enhance the appeal of learning, teachers were mandated to generate innovative approaches for delivering educational material that enhance students' motivation to learn. These approaches should deviate significantly from conventional PowerPoint presentations, which lack hyperlinks, multimedia, and animations. Instead, teachers should employ interactive PowerPoint presentations, incorporating multimedia and animations, and utilise specialised presentation application like Prezi. Additionally, there have been the emergence of pedagogical tools that may be integrated into PowerPoint presentations, transforming them into interactive presentations that foster student engagement and facilitate teacher-student interaction throughout the learning process. The researcher primarily examined a tool called Classpoint in their study. They applied this tool to university students engaged in distance learning to demonstrate its efficacy in facilitating student interaction with educational content and enhancing their motivation to learn.

The study problem can be discerned by addressing the subsequent inquiries:

(1) What is the perception of university students about the interactive classroom while utilising Classpoint in remote education?
(2) What is the level of students' motivation when utilising Classpoint in remote education?
(3) Does the degree of classroom interaction have a statistically significant link with student desire for distant learning at a significance level of $\alpha = 0.05$?
(4) Is there a statistically significant difference, at a significance level of $\alpha = 0.05$, in the means of the research participants' replies about classroom interaction and desire for remote learning, based on the variables of gender and educational level?
(5) What rationales do students offer to enhance their desire for using Classpoint in distant learning?

Study Significance

The present work is anticipated to enhance the theoretical literature. Previous research have not extensively examined the qualities, characteristics, and role of Classpoint in presentations, particularly in terms of its ability to facilitate engagement with educational content and enhance motivation among university students in distant

learning. The study's findings are anticipated to have practical benefits by motivating faculty members to utilise Classpoint in their presentations. The study will highlight the strengths and weaknesses of this tool, as well as provide guidance on how to enhance and expand its usage. The ultimate goal is to create more engaging and interactive presentations for students during remote learning.

Terms

Classpoint: is an instructional application that stands out for its capacity to effortlessly and swiftly transform PowerPoint presentations into interactive slides. It is installed on the computer to function in synchronisation with PowerPoint presentations. This application enables the instructor to actively include students in the lecture by providing several alternatives. The teacher may assess students' participation, showcase their responses, compare them, and electronically choose participants.

Classroom interaction: include the active engagement of students with the teacher and their peers, as well as the demonstration of educational material using a remote educational platform. This includes responding to relevant questions using Classpoint and comparing their replies. However, the instructor directly presents them on the screen, and this is evaluated based on the level achieved by the study participants in the area of classroom interaction using the tool developed by the researcher.

Participants: Students from Arab Open University attended university course lectures through distance learning and face to face during the first semester of the academic year 2023-2024. The lessons were conducted remotely via the Zoom platform and face to face once a week.

Motivation for distant learning: an internal state that drives the conduct of university students and guides them towards engaging in distance learning through engagement with the Classpoint tool used by their instructor during presentations. It is quantified based on the extent to which the participants of the study acquire it following their reaction to the instrument devised by the researcher.

Constraints of the Study

Geographical boundaries: The investigation was carried out exclusively at Arab Open University, located in Jordan.

Human limits: Students pursuing Bachelor's and Master's degrees in the Faculty of Education at Arab Open University.

Temporal constraints: This investigation was place during the first semester of the academic year 2023-2024.

Consequently, the present study is restricted in its capacity to be applied to a wider population.

Review of Existing Literature and Prior Research

This study employed Moore's (1993) Transactional Distance (TD) theory as its theoretical foundation. Despite being presented some years ago by Moore (1993), the TD theory remains very relevant in the field of distance education (DE) according to Paul et al. (2015) and Weidlich & Bastiaens (2018). The authors of the study (Paul et al., 2015) proposed a new perspective on the concept of distance in distance education (DE). They suggested that distance should be understood not only as the physical separation between students and tutors, but also in terms of its impact on learning design. Moore perceives TD as a partition that separates these two entities, establishing a psychological and communicative realm that must be navigated. This realm is a possible source of misinterpretation between the tutor's input and the learners. The term "transactional distance" refers to the psychological and communicative space, as stated by the author in 1993 (p. 22). Therefore, TD has an adverse impact on the teaching and learning process.

In terms of pedagogical techniques, Zhang's (2003) empirical study indicates that the use of constructivist and social learning theories, as well as the establishment of learning communities, can have a good impact on students' perception of TD. Hence, fostering a feeling of community is the initial action that a teacher must take in an online setting (Naidu, 2018). The literature on TD theory emphasises the significance of conversation as a catalyst for a constructivist DE environment and the necessity for guidance on effective techniques to enhance discussion (Farquhar, 2013). The Fully Online Learning Community (FOLC) is a social-constructivist approach for online learning that was established by the Institute of Technology at the University of Ontario in Canada. FOLC aims to minimise TD. The FOLC model, developed by Blayone et al. (2017), is derived from the Community of Inquiry model proposed by Garrison (2009). It highlights the importance of collaborative learning, which involves a mutually beneficial relationship between social and cognitive interactions. This is further enhanced by the effective utilisation of synchronous and asynchronous digital resources (Blayone et al., 2017, 1). The FOLC model also incorporates authentic assessment methods and acknowledges the significance of considering the context and competencies of the students. Papanikolaou et al. (2017) examine a blended learning method that employs social orchestration patterns to foster a feeling of community in teacher education.

In the past, utilising presentations as a means to convey and deliver lessons and lectures to the audience was considered a crucial factor for the professor to attain success and achieve their objectives. The success and excellence of these presentations rely on the calibre of their production and the lecturer's proficiency in preparing them and incorporating stimulants that captivate viewers. PowerPoint presentations have always remained one of the most widely utilised methods for presenting ideas, information, and data across numerous domains. They are employed in a sequential and logical manner to convey information, exert influence, convince, and provide training. Due to technological advancements and the revolution in the field of technology, numerous websites have emerged that offer the service of creating presentations and lectures with dynamic and visual effects. These websites excel in presenting images, videos, and texts in a more creative and distinctive manner compared to the PowerPoint programme. One of the websites that falls into this category is Prezi, a web-based platform for presenting applications. Prezi is a tool that allows users to deliver lectures and tell tales using a single slide instead of numerous standard slides. This slide offers the capability to include an unlimited amount of text, images, videos,

and other media. These can be organised into multiple frames, allowing users to create non-linear presentations. Users can zoom in and out to adjust the display, and arrange the information and multimedia in a specific manner using paths that connect the frames and shapes containing the content (Almomani et al., 2020b; Moulton et al., 2017; Al-Zein, 2014). There is no text provided.

Classpoint is a contemporary internet tool or application that operates in conjunction with PowerPoint presentations, allowing for simultaneous learning. It is distinguished by its capacity to efficiently and expeditiously transform PowerPoint presentations into interactive slides, facilitating the administration of tests to students. These exams may be assessed and stored by accessing the classroom on any device with a web browser. In addition, it facilitates instructors' comprehension of information through PowerPoint presentations, eliminating the need to transfer to other programmes. Furthermore, it equips them with user-friendly PowerPoint annotation tools, including digital whiteboards. Classpoint is a robust interactive assessment tool for classrooms that enables teachers to evaluate students and establish a meaningful and direct connection, ensuring active communication and engagement during instruction. It allows teachers to gather immediate responses, store data for evaluation and analysis, and enhance learning outcomes.

The necessity to enhance students' motivation and engagement in remote learning, as well as to adjust to the shift towards a remote learning system, has compelled educational institutions to promote active participation from both faculty members and students. This entails acquiring new competencies that enable educators to deliver interactive educational materials to their students. Furthermore, it is crucial to establish the key requirements for this purpose and focus on enhancing educational systems and developing interactive educational platforms like Classroom, Microsoft Teams, and Zoom to ensure uninterrupted learning. Additionally, it is essential to provide training on utilising and leveraging modern electronic tools and applications such as Classpoint alongside presentations during remote teaching. Moreover, incorporating other electronic applications like Nearpod, Kahoot, Padlet, and others can significantly enhance student engagement and motivation to learn when employed by a proficient teacher through synchronous or asynchronous learning sessions. Lastly, it is important to assess students' performance, participation, and implementation of interactive activities to gauge their progress (Donaldson & et al, 2017; Atoui, R. M, 2016).

Given the widespread use of smart phones, it is important to utilise them for educational purposes through "mobile learning". This involves using smart phones as supplementary tools to enhance the learning process, with a focus on the learner as the central figure. It encourages self-reliance in gathering information, comprehending the content, asking questions, engaging in dialogue and debate both inside and outside of the educational setting, all in order to achieve a deeper understanding of the subject matter.

Pericles (2023) emphasised the significance of utilising mobile learning and electronic apps in the educational process. This approach enhances the motivation of educational institutions, professors, and students. According to Alabbad & Huwamel (2020), acquiring skills related to this topic involves searching for additional applications and programmes that can be used in conjunction with presentations or mobile learning. This can help alleviate boredom and stagnation during the learning process, facilitate the transfer and exchange of experiences among

students, and ultimately promote classroom interaction.

Virtual worlds have become increasingly popular due to their easy accessibility and adaptability. They provide the chance for immersive experiences that replicate real-life situations, allowing students to investigate and make choices in a safe environment. These environments can be tailored to different academic disciplines such as engineering, business, or medicine, providing students with the opportunity to refine their practical skills. Makerspaces and collaborative classrooms provide an environment that promotes teamwork, cooperation, and creativity in physical interactive learning situations. These environments provide students the opportunity to engage in collaborative group projects, share ideas, and collectively devise solutions to difficulties. Students can engage in hands-on learning experiences by providing them with access to specialised tools, materials, and equipment in physical interactive environments. This allows students to investigate and experiment with different concepts and approaches that they may not have access to otherwise (Pericles, 2023).

Xiaona (2023) highlighted that interactive learning environments have a significant benefit in their ability to accommodate diverse learning preferences and styles. For example, whereas certain students may like auditory guidance or practical activities, others may have a preference for visual learning. Students have the ability to personalise interactive learning environments according to their individual learning preferences and methodologies, resulting in a customised educational experience that meets their specific needs. Interactive learning environments have the potential to impact students' sense of community and belonging. Interactive learning environments have the potential to improve students' educational experiences and prepare them for success in their future employment by offering personalised learning opportunities, promoting a feeling of community, and delivering rapid feedback. Interactive learning environments are anticipated to be essential in higher education (Zunera & Sham, 2023).

The Constructivism philosophy emphasises the importance of active and experiential learning, where students construct their own worldviews via their experiences and connections. Interactive learning is an educational approach that involves students actively participating and engaging in the learning process, often facilitated by technology. The close connection between these two concepts stems from the fact that interactive learning provides students with an opportunity to engage in the dynamic and experiential learning process that lies at the core of constructivism. Through the utilisation of interactive technologies like as simulations, games, and online forums, learners have the opportunity to enhance their understanding of the subject matter by engaging in inquiry and experimentation. In addition, they have the opportunity to participate in cooperative educational activities with their classmates (Pericles, 2023).

The use of online discussion forums in higher education serves as an exemplification of the integration of constructivism with interactive learning. The purpose of these discussion boards is to facilitate cooperative learning among students. via these boards, students may engage in activities such as exchanging thoughts and ideas, receiving peer criticism, and enhancing their understanding of the subject matter via reflection and debate. The integration of constructivism with interactive learning presents a powerful method for education that can promote profound comprehension, analytical reasoning, and enduring retention of information (Garca-Carrión,

Molina, and Roca, 2018).

The inefficiencies of traditional, passive teaching methods, which have been shown to be less effective in enhancing long-term information retention, can be resolved through the integration of constructivism with interactive learning. Lectures and textbook reading are instances of passive learning methods that often lead to shallow comprehension and detach students from the active process of constructing their own conceptual frameworks. In contrast, interactive learning facilitates students' active involvement with the subject matter, allowing them to explore, experiment, and construct their own understanding via collaboration with peers and self-reflection. This instructional strategy has been shown to be particularly helpful in promoting higher-order cognitive talents, such as problem-solving, critical thinking, and creativity, which are essential in the rapidly evolving modern workplace (Pericles, 2023).

Furthermore, the amalgamation of constructivism and interactive learning may effectively cater to the requirements of a wide range of learners. Students originate from many backgrounds, cultures, and learning preferences, and the conventional "one-size-fits-all" instructional method might be restrictive for certain learners. Through the provision of interactive and collaborative learning opportunities, educators may effectively cater to the requirements of a wide range of learners. This enables learners to independently develop their comprehension of the subject matter in a manner that is significant and applicable to their own experiences. Ultimately, the fusion of constructivism with interactive learning presents a potent educational method that fosters profound learning, analytical reasoning, and innovation, while simultaneously catering to the requirements of a wide range of learners. Given the growing significance of these abilities in today's job market, educators must persist in examining and executing inventive methods of instruction and education that most effectively foster student achievement (Zunera & Sham, 2023).

The researcher have conducted a comprehensive search for prior studies pertaining to Classpoint, but no relevant study conducted by Arab or international scholars has been discovered. Hence, this study primarily examined relevant research that explored electronic applications associated with Classpoint, presentations, and mobile learning, as well as their utilisation in the educational process. Notably, the investigation conducted by Akram and Abdelrady (2023) aimed to assess the impact of integrating Classpoint tool activities on reducing test anxiety among female undergraduate EFL learners in Saudi Arabia. The intervention, namely the use of the ClassPoint tool in the instructional process for the experimental group, spanned around one month. In contrast, the controlled group of students received instructions that did not incorporate the use of ClassPoint. Afterwards, the data from both groups was subjected to statistical analysis using a T test. The investigation revealed that the use of ClassPoint tool activities had a noteworthy effect on diminishing test anxiety in EFL learners when compared to traditional instruction without ClassPoint. Hence, the research proposes the use of the ClassPoint tool across all educational tiers and learning modalities to effectively maintain learner engagement and alleviate students' test anxiety.

In their study, Abdelrady and Akram (2022) did a quasi-experimental research to examine how the integration of ClassPoint tool activities might enhance the satisfaction of female undergraduate EFL learners in Saudi Arabia with e-learning. The intervention, namely the use of the ClassPoint tool in the instructional process for the

experimental group, spanned around one month. In contrast, the controlled group of students received instructions that did not incorporate the ClassPoint technology. Afterwards, the data from both groups was statistically analysed using a t-test. According to the investigation, the use of ClassPoint tool activities resulted in a notable improvement in the satisfaction and enhancement of e-learning for English as a Foreign Language (EFL) learners, when compared to traditional instruction without ClassPoint. Hence, the research proposes the utilisation of the ClassPoint tool across all educational tiers and learning modalities to effectively maintain student engagement, motivation, and satisfaction with their educational experience.

Bong and Chatterjee (2021) performed a research to assess the efficacy of using the Classpoint tool in promoting student engagement during online courses. To do this, a survey was administered to both teachers and students. The survey findings indicated that over 80% of the student participants perceived Classpoint as a highly successful platform for fostering student involvement and participation in the classroom. 60% of the teachers' participation agreed, while 40% strongly agreed, that students are more inclined to answer to interactive quizzes supplied through ClassPoint than to orally comment in class. Overall, the instructors and students appreciated the use of ClassPoint, since it effectively fosters student participation in both virtual and in-person courses.

In their study, Almomanib et al. (2020b) investigated the impact of incorporating Prezi presentations into scientific education on the academic performance and attitudes of eighth grade students in Jordan. The study included a total of 46 students from the eighth grade in Irbid Governorate, Jordan. The students were evenly divided into two groups: 24 students in the experimental group and 22 students in the control group. In order to accomplish the objective of the study, an accomplishment exam was administered to both groups, and a scale was utilised to assess the attitudes of the students in the experimental group regarding the utilisation of Prezi presentations in scientific instruction. The findings indicated that there were statistically significant disparities between the average score on the accomplishment test and the positive sentiments towards the experimental group of students who utilised Prezi presentations for studying.

In a research performed by Al-Suwerki (2019), the objective was to investigate the impact of utilising presentations in Arabic language classes on the academic performance and attitude of students at King Abdul Aziz University in Jeddah. The study sample comprised 240 pupils. The study's findings indicate that employing presentation software has a significant positive influence on both students' academic performance and their attitudes towards the Arabic language, as compared to the conventional teaching approach.

Al-Zahrani (2019) conducted a study to investigate the impact of utilising a mobile learning electronic learning environment through the Nearpod application on the academic performance of female students in the educational technology course at Princess Nourah bint Abdul Rahman University's College of Education. In order to do this, the study employed an experimental methodology, in which the researcher deliberately selected a sample of students enrolled in the educational approaches course. The sample consisted of 60 students who were separated into two groups: an experimental group and a control group. The control group received instruction on the Google Learning Apps unit through traditional lectures and presentations, whereas the experimental group was exposed to the identical educational content via a mobile learning-based e-learning environment facilitated by the Nearpod

application. By utilising the application on their mobile phones, the students were able to access the unit's presentations, instructive films, and actively participate by answering assessment questions both during and after the lesson. The questions encompassed a range of formats, including true and false questions, multiple-choice questions, and the use of the electronic voting functionality. Subsequently, a post-achievement exam was administered to both the experimental and control groups. The findings revealed the exceptional performance of the students in the experimental group, surpassing the children in the control group in the accomplishment test.

Anigbo and John (2018) did a research to investigate the impact of using PowerPoint on the academic performance of computer science students. The study included a sample of 346 American university students who were pursuing a computer science degree. The study's findings revealed that the experimental group, which received instruction utilising the Microsoft PowerPoint Instruction Strategy, achieved better average scores in the post-test compared to the control group. The findings also indicated that male pupils attained superior average success levels compared to their female counterparts.

In their study, McKay & Ravenna (2016) investigated the efficacy of the Nearpod application in monitoring students' academic progress and assessing their comprehension during instruction. The research cohort comprised 230 students enrolled at Tustin University in California. The Nearpod programme was employed to assess the pupils' comprehension. A quasi-experimental methodology was employed. The study findings demonstrated that employing the Nearpod application resulted in enhanced comprehension and elevated academic performance among students, in contrast to the control group.

Zaidan (2016) did a research to determine the efficacy of using PowerPoint in enhancing the writing abilities of first-grade pupils at Manar Sudair School in Al Majmaah Governorate, Saudi Arabia. The study sample comprised 40 pupils. The study's findings demonstrated the efficacy of PowerPoint in instructing Arabic language courses, with a special emphasis on writing abilities.

In a research done by Alsyed (2016), the objective was to investigate the impact of utilising blended learning in the instruction of a computer course on the enhancement of PowerPoint programming abilities among female students in the General Diploma programme, specifically in the Industrial Materials Division at the College of Education. The study also intended to assess the attitudes of these students towards blended learning. The research cohort comprised 80 female students. A quasi-experimental methodology was employed. The study findings demonstrated a favourable influence of blended learning on the acquisition of PowerPoint software proficiency.

Mohammed (2016) performed a research to assess the impact of using Prezi technology against PowerPoint on academic performance in the field of current educational technology for graduate students. The study also intended to gather the perspectives of students about the interactive aspects of Prezi technology. The researcher employed both experimental and descriptive methodologies to carry out this study, since they are the most suitable for this particular form of investigation. The study sample comprised 30 master's students specialising in educational technology at Sudan University of Science and Technology. The sample was partitioned into two equitably sized cohorts: one designated as the experimental group, which employed the Prezi approach for studying the content;

the other designated as the control group, which utilised PowerPoint for studying. Prior to implementing the experiment, both groups had a pre-test to establish their equivalence. Subsequently, a post-test was administered to quantify their direct achievement. Following a two-week period of completing the experiment, both groups of students underwent a comprehension exam to assess their delayed achievement. The study findings demonstrated the efficacy of Prezi technology and its advantages over PowerPoint in terms of academic performance. The findings further demonstrated that Prezi software had a superior degree of interactivity in comparison to PowerPoint.

In 2013, Alshammat performed a research to investigate the impact of establishing a presentation programme in geography for tenth-grade secondary school students. The study intended to assess the program's influence on students' academic performance and their attitudes towards it. The study employed a quasi-experimental methodology and a descriptive-analytical framework. The study tool comprised an accomplishment exam designed for the particular unit of study, as well as an attitude scale. The study sample comprised 180 male and female students. The study findings demonstrated a favourable influence of software use on students' academic performance and their attitudes towards it.

In 2012, Al-Juhani performed a research to determine the efficacy of a programme that utilised PowerPoint presentations to enhance artistic taste skills and attitudes among students in the Art Education Department at Taibah University in Madinah. The study sample comprised 57 students, who were allocated into two groups: an experimental group and a control group. The study's findings indicate that there were statistically significant disparities between the average scores of the experimental and control groups in both the post-achievement test and the post-application of the attitude scale, with the experimental group demonstrating superior outcomes.

Previous studies have been reviewed and found to have varying objectives, samples, and variables. These studies generally adopted a semi-experimental approach and focused primarily on the use of PowerPoint presentations. However, there were a few exceptions. Akram and Abdelrady (2023), Abdelrady and Akram (2022), and Bong and Chatterjee (2021) conducted studies specifically aimed at assessing the effectiveness of the Classpoint tool in teaching. The results of these studies consistently demonstrated that the Classpoint tool effectively reduces English language test anxiety among undergraduate students (Akram and Abdelrady, 2023) and increases students' motivation towards electronic lessons (Abdelrady and Akram, 2022; Bong and Chatterjee, 2021).

The study conducted by Moumni et al. (2020) specifically examined the impact of Prezi presentations on the academic performance and attitudes of middle school pupils. The findings of the study demonstrated that Prezi presentations were successful in enhancing educational attainment and fostering positive attitudes among the students. In Muhammad's (2016) research, it was found that the use of Prezi software was effective in achieving educational technology goals for graduate students. Similarly, the study conducted by McKay and Ravenna (2016) demonstrated the effectiveness of the Nearpod application in improving students' achievement and understanding. Regarding the study samples, it is worth noting that certain previous studies focused on university students, such as Al-Juhani's (2012) study, Al-Sayed's (2016) study, and Mohammed's (2016) study. On the other hand, other studies were conducted on school students, such as Al-Momani et al.'s (2020) study, Zaidan's (2016) study, and

Shammat's (2013) study. Regarding the variables examined in prior research, the majority of them aimed to identify the influence of presentations on students' academic performance, as demonstrated in Mohammed's (2016) study. Additionally, some studies focused on the impact of presentations on students' attitudes, as exemplified by Alshammat's (2013) research. The research sample comprised university students during the COVID-19 epidemic, setting it apart from earlier investigations.

The present study has leveraged prior research to develop the study instrument and to provide the theoretical literature. Additionally, it has drawn upon the methodology employed in earlier studies to assess the validity and reliability of the study instruments. The study took a unique approach to investigate the impact of using Classpoint as an interactive tool with PowerPoint on classroom interaction and motivation in distance learning among university students. Unlike previous studies, this study specifically focused on the effectiveness of using Classpoint after students had been taught educational materials for an entire semester. The researcher found that this aspect had not been previously explored.

Method

Study Design

The study employed both an analytical-descriptive and qualitative technique, in accordance with its objectives and research questions. The researcher instructed the group using Classpoint and subsequently administered the questionnaire after the lectures concluded. Furthermore, a semi-structured interview was conducted with 14 students to provide a comprehensive insight into student motivation.

Participants

The study included a sample of 66 male and female undergraduate and graduate students from the Faculty of Education at Arab Open University in Jordan. The participants were purposefully selected from the relevant departments taught by the researcher of this university during the first semester of the academic year (2023-2024). The total number of Master's students consisted of 23 students, both male and female. Similarly, the total number of Bachelor's students consisted of 43 students, both male and female.

Study Tools

To achieve the goal of the study, the researcher developed a five-point Likert questionnaire. The researcher is developing the questionnaire with reference to previous studies and related theoretical literature, such as the studies by Almomani et al. (2020b), Al-Shamat (2013) and Mohammed (2016); This tool originally consisted of (25) items.

The second tool was semi-structured interview questions. The interview questions were derived from the actual interaction between the participants and Classpoint during the presentations.

Validity of the Questionnaire

The validity of the content of the study tool was verified by presenting it to a group of eight specialized referees. The amendments were made in light of the observations they made, and five items were deleted, so that the questionnaire in its final form consisted of twenty (20) items distributed in two fields, which are class interaction and motivation towards distance learning.

Questionnaire Reliability

Questionnaire reliability was verified by extracting internal consistency in terms of the Cronbach alpha equation as it was applied to an exploratory sample composed of 25 students outside the main study sample. The internal consistency of the questionnaire was extracted using Cronbach's alpha coefficient, and its value was 0.86, which is acceptable for the purpose of this study.

Results and Discussion

The Results and Discussion for the First Question

What is the perception of university students about the interactive classroom while utilising Classpoint in remote education?

To answer the first question, the means and standard deviations of the responses of the study sample were calculated on the field of the questionnaire related to the effect of using Classpoint on achieving class interaction. Table 1 shows a high degree of attitude among university students towards using the Classpoint application to achieve classroom interaction, with a percentage of 90% of the items in this field. The item that stated: "The application encouraged me to interact and participate while learning" came in first rank, with a high arithmetic mean of (4.67) out of (5), and this indicates the importance of using this application and the others in the distance learning environment to create an active and effective learning environment that has positive effects represented in increasing the interaction and participation of students with each other and with their teacher during their distance learning. While the item that stated "the traditional teacher's method of asking questions and discussion is better than using this application" came in the last rank, with a weak mean of 2.01, This indicates the students' desire to continue the teacher's use of this application and their refusal to return to the traditional method of teaching because there is an element of suspense in employing electronic interactive applications that push them to learn from a distance. This result is consistent with modern trends in teaching and the constructivist theory perspective, which places the learner at the center of the learning process, and enables him to gain experience and obtain immediate feedback from the teacher.

Teachers have faced several problems during university remote teaching, most notably the difficulty of achieving positive classroom interaction for students with the educational process due to the teacher's distance from them spatially compared to the face-to-face situation. It appears from the responses of the students in the study that the application of Classpoint and similar technology tools may effectively contribute to increasing classroom

interaction and creating an active learning environment that increases students' understanding and comprehension if it is chosen in a manner commensurate with the students' capabilities and in line with the content and method of teaching. This is relatively consistent, since this study as mentioned previously, is the only one that used the Classpoint application, with the results of some previous studies, such as the study of McKay & Ravenna (2016), which showed the effectiveness of using the Nearpod application as an interactive electronic application in improving students' understanding, as well as the results of Al-Juhani (2012), which showed the effectiveness of a program based on presentations in developing the artistic taste skills of university students. The researcher may attribute the reason for the increase in classroom interaction when using the Classpoint application to its inclusion of many interactive features, its ease of use by the teacher and students, and its flexibility in dealing with it in the classroom situation, which is often characterized by dynamic and continuous changes.

Table 1. Means and Standard Deviations of the Responses of the Participants on Class Interaction

Sequence	Item	Mean	Std. Deviation	Level
1	The application encouraged me to interact and share while learning	4.67	0.77	**High**
2	It encouraged me to take initiative and compete with my classmates in the lecture.	4.58	0.77	**High**
3	Classpoint application presents questions and activities in an interesting and funny way	4.53	0.86	**High**
4	Using the application helped me understand and realize the educational content	4.52	0.68	**High**
5	This application is an effective way to continue the attendance and interaction of students during the lecture	4.42	0.86	**High**
6	My use of this application did not make me feel bored during the lecture	4.41	0.74	**High**
7	The teacher's use of the application made the students more disciplined and prepared in the lecture	4.41	0.82	**High**
8	Using the application gave me the opportunity to discuss and ask questions on the topics of the lesson	4.38	0.76	**High**
9	The application is a suitable means of diagnosing the strengths and weaknesses of students	4.26	0.85	**High**
10	The traditional teacher's way of asking questions and discussing is better than using this application	2.01	0.75	**Low**

The Results and Discussion for the Second Question

What is the level of students' motivation when utilising Classpoint in remote education?

To answer the question, means and standard deviations of the responses of the participants were calculated on the impact of the use of the Classpoint on motivation towards distance learning, and Table 2 shows the results.

Table 2. Means and Standard Deviations of the Responses of the Study Members on Motivation towards Distance Learning

Sequence	Item	Mean	Std. Deviation	Level
1	The teacher's use of Classpoint helped attract my attention to the lecture.	4.77	0.60	**High**
2	Using this application makes me feel excited and want to learn remotely	4.64	0.74	**High**
3	The teacher's diversification of Classpoint's options increased my motivation to learn and understand	4.50	0.81	**High**
4	The success of using this application in the lecture depends on the skill and technical management of the teacher	4.45	0.68	**High**
5	There is a need to use the application in all subjects	4.41	0.89	**High**
6	The teacher's use of this application makes me bored during the lecture	3.88	1.40	**High**
7	It's hard for me to focus when my teacher is using this app	3.80	1.27	**High**
8	Using this application requires students to have technical skills	3.65	1.16	**High**
9	This application is not suitable for all students of different grades	2.33	1.15	**Low**
10	Using this application wastes lecture time	2.03	1.21	**Low**

Table 2 shows that there is a high degree of effectiveness among university students towards the effect of using the Classpoint on their motivation towards distance learning, with a percentage of 80% of the items in this field, where the item that stated "the teacher's use of the Classpoint application helped to attract my attention to the lecture" came in the first rank with a mean of (4.77), and this confirms the importance of using this application and its likes in motivating students and increasing their attraction and motivation to the distance learning environment, and this is reflected positively on students' understanding of the educational content of the teaching course; thus, achieving educational goals and access to qualitative educational outcomes for this course. While the item stated that "using this application wastes lecture time," it came in last with a low mean of (2.03). The previous result shows us that employing the Classpoint application with presentations during the educational process from the point of view of the study members (university students) is a qualitative addition to their learning that increased their interaction and enthusiasm with their teacher and colleagues during their distance learning, and the difficulty of their being distracted from the lecture during its implementation through the multiple options that the teacher presents using the Classpoint tool during the presentation of the content; in addition, this application can be applied to various academic levels.

It is also noted through the responses to the study tool that there is a kind of reliability for the students that is evident from their responses to the negative items contained in the study tool and its content. This result is relatively consistent with the results of previous studies such as the study of Alshammat (2013) and Al-Suwaikri (2019), in which their results showed the effectiveness of using presentations on students' attitudes and motivation

towards learning, and the results of the study of Almomani[b] & et al., 2020b, and Mohammed (2016), which indicated the effectiveness of using interactive Prezi presentations on school and university students' attitudes and motivation towards learning.

The Results and Discussion for the Third Question

Does the degree of classroom interaction have a statistically significant link with student desire for distant learning at a significance level of α = 0.05?

To answer the question, the Pearson correlation coefficient was calculated between the students' responses to the classroom interaction items and the motivation items, and its value was (0.80), which indicates the existence of a direct statistically significant correlation at the level (α = 0.01), and this relationship can be described as a direct and strong relationship, meaning that there is a positive and strong correlation between classroom interaction during distance learning and motivation towards distance learning, meaning when there is more classroom interaction, the motivation towards distance learning will be increased. This result can be explained by the fact that the use of Classpoint attracted the students' attention and interaction during the lecture and encouraged them to participate in the various activities that allowed them to be used and allowed them to use the mobile in a positive way while learning through the ClassPoint website, which reflected positively on their motivation to learn and apply. Therefore, this result emphasizes the need to diversify the use of technological tools and continue to develop and employ mobile learning effectively during learning to ensure the continuity of attracting the attention of its students to learning in general and to distance learning in particular. This result is consistent with psychological theories related to motivation and shows that there is a strong correlation between the availability of reasons and aids and what the student practices in the classroom or during the synchronous learning session to increase his enthusiasm towards learning.

The Results and Discussion for the Fourth Question

Is there a statistically significant difference, at a significance level of α = 0.05, in the means of the research participants' replies about classroom interaction and desire for remote learning, based on the variables of gender and educational level?

To answer this question, means and standard deviations were calculated in both the classroom interaction field and the distance learning motivation field in the questionnaire according to the variables of gender and educational level, and this is shown in Table 3 and Table 4. Table 3 shows that there are apparent differences between the responses of the study members according to the gender variable (males or females) and the educational level (masters or bachelors) on the questionnaire in each of the fields of classroom interaction and motivation towards learning. To make sure whether the differences in means according to educational level and gender are statistically significant or not, a two-way ANOVA was used for each of the fields of classroom interaction and motivation towards distance learning, and Table 5 and Table 6.show the results of this analysis.

Table 3. Means and Standard Deviations of the Fields of Classroom Interaction and Motivation towards Learning according to Educational Level and Gender

N	Standard deviation	Mean	Categories	Source	Dimension
43	0.62	4.08	B.A	Educational level	
23	0.63	4.46	Master		Class room
14	0.47	4.54	Male	Gender	interactive
48	0.64	4.40	Female		
43	0.35	3.81	B.A	Educational level	
23	0.38	3.92	Master		Motivation
48	0.39	3.90	Female	Gender	
18	0.36	3.93	Male		

It is noticed from the results of Table 4 that there are statistically significant differences between means with a difference in educational level and in favour of the master's students, while no statistically significant differences appeared according to the difference in gender or the interaction between gender and educational level. The result can be explained by the fact that postgraduate students are more eager and willing to learn and gain more experiences compared to bachelor students because they need that in their work (Hakami, 2020), as most of them work in jobs related to the teaching profession, and this is what makes their self-motivation more clear and makes them more serious than bachelor students, especially since the use of this program often requires students to use their phones while participating in Classpoint to interact more with their colleagues and teachers during distance learning. Moreover, to open the way for them to achieve themselves by participating in expressing their opinions, writing them down, and obtaining feedback from the participants in the educational process.

Table 4. The Results of the Two-way Analysis of Variance to examine the Significance of the Differences between Means of the Level of Class Interaction according to Gender and Educational Level

Source	**Type III Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Educational level	1.729	1	1.729	4.234	0.044
Gender	0.059	1	0.059	0.145	0.705
Education level * gender	0.311	1	0.311	0.761	0.386
Error	25.320	62	0.408		
Total	1301.300	66			
Corrected Total	27.058	65			

The researcher also attributed the absence of statistically significant differences attributed to gender to the fact that both males and females were affected by the use of Classpoint with presentations during their distance learning, increasing their interaction, regardless of their gender, and their love for learning through this new method, which increased their classroom interaction. These results were relatively consistent with the study of Al-Juhani (2012), whose results showed the effectiveness of a program based on presentations in developing the artistic taste skills of university students.

Table 5. The Results of the Two-way Analysis of Variance to examine the Significance Differences between Means of the Level of Motivation according to Gender and Educational Level

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Educational level	0.171	1	0.171	1.168	.284
Gender	0.001	1	0.001	0.010	.920
Education level * gender	0.064	1	0.064	0.438	.511
Error	9.053	62	0.146		
Total	1015.450	66			
Corrected Total	9.249	65			

a. R Squared = .021 (Adjusted R Squared = -.026)

Table 5 shows that there are no statistically significant differences attributed to the difference in gender, academic level, or the interaction between them. The result can be explained by the fact that university students have a permanent desire to use everything new in the field of education and to continue using it if it shows its ability to attract, excite, and contribute to achieving understanding and acquiring scientific and technical skills (Hakami, 2020).

Since the Classpoint program has contributed to increasing classroom interaction among students during distance learning, it is thus one of the ideal solutions to the problem of students' reluctance at different academic levels to distance learning, their boredom from it, and their inability to continue learning with their teacher during classes as a result of their presence in different places and the lack of opening cameras during simultaneous learning across educational platforms. Also, the interest of students of different genders or academic levels in obtaining high grades in academic courses makes them more willing and motivated to use interactive electronic applications provided to them by a teacher with technical skills in a more attractive and interactive manner. This result is relatively consistent with the results of the studies of Alshammat (2013), Mohammed (2016), Almomani[b] et al. (2020b), which showed the effectiveness of using presentation applications on students' attitudes and motivation towards learning.

The Results and Discussion for the Fifth Question

What rationales do students offer to enhance their desire for using Classpoint in distant learning?

A semi-structured interview was conducted with (14) students. The first reason was attracting them during an online lecture. Students appreciate the role of Classpoint in attracting them. Ten of them talk clearly about the way their teacher uses Classpoint to motivate them by creating an interactive environment. The second reason was the diversity of the lecturers. Eleven of them talk about the surprises they found in each lecture. The teacher always finds ways to motivate them and keep up the excitement. Moreover, the diversification of activities via Classpoint increases students' motivation. All students express the need to use Classpoint in all courses. This is because it keeps them alert, active, and motivated and helps them understand the content. The ease of use provides

an extra advantage to Classpoint. Students do not face any technical issues while using Classpoint. At last, they appreciate the role of Classpoint in time management. The students noticed that using Classpoint helped the teacher finish the lecture in less time.

Conclusion

Presentations are crucial for conveying information and providing lessons and lectures. They efficiently help to imparting knowledge to students in a non-traditional manner. For instructors to successfully utilise and engage learners in the process of education, they must possess a range of abilities that enable them to proficiently plan, develop, and deliver presentations in an appealing manner. The lecturer's success in achieving the objectives of their lecture, whether it is face-to-face or distance education, heavily relies on delivering effective presentations. In the context of distance education, it is crucial to prioritise the quality of presentations in order to enhance student engagement and maintain their interest while learning and interacting with their teachers remotely. To enhance the quality of PowerPoint presentations, it was imperative to augment them with sophisticated tools and features.The Classpoint application enhances PowerPoint presentations by fostering interactivity and facilitating direct engagement between students and teachers, hence promoting the attainment of educational objectives. The findings of the present investigation demonstrated the significant efficacy of implementing Classpoint in the context of remote education among students enrolled in the Faculty of Educational Sciences at Arab Open University, irrespective of their gender and academic standing. The efficacy of Classpoint in promoting classroom interaction and motivation in distance learning scenarios, particularly when used in conjunction with PowerPoint presentations, underscores the need for educational institutions to prioritise the adoption of such tools. It is imperative that teachers and students receive proper training on how to effectively utilise this application in the teaching process.

Recommendations

According on the study findings, the researcher propose the following recommendations:

- Promoting the use of interactive electronic apps by faculty members in university education, both synchronously and asynchronously, to facilitate students' engagement with them.
- Conducting training sessions for faculty members on using interactive electronic apps to enhance students' motivation in remote learning and blended learning.

Further investigation is required on the utilisation of interactive electronic applications that stimulate student interest for online and distant education.

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