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COMPARISON BETWEEN FACULTY MEMBERS' TECHNOLOGICAL INTEGRATION EFFECTIVENESS AND STUDENTS' PERFORMANCE AT UNIVERSITY LEVEL

Dr Fahd Naveed Kausar (Corresponding Author)
Designation: Assistant Professor, Affiliation: School of Education, Minhaj University Lahore, Punjab, Pakistan, Email: fahdnaveed1@hotmail.com

Noreen Ghazala
Designation: Ph.D Scholar, Affiliation: School of Education, Minhaj University Lahore, Punjab, Pakistan, Email: noreentahir@gmail.com

Sara Abid
Designation: Ph.D Scholar, Affiliation: School of Education, Minhaj University Lahore, Punjab, Pakistan, Email: sara.abid306@gmail.com

Abstract

Technology integration has gained popularity in educational settings. Technology gives educators a platform to enhance learning and increases the value of getting a good education. When properly implemented, they can encourage student involvement in the learning process, leading to learner-centered pedagogy and independent students. This research aims to investigate the comparison between faculty members' technological integration effectiveness and university students' academic performance. The population was comprised of all public and private universities of the Lahore district with a sample size of seven universities. The sample for the study was chosen using a multistage sampling process. The instruments of the study were questionnaires. The effectiveness of faculty members' technological integration as it relates to student performance was determined using the "descriptive" statistic. SPSS (version 27) was used to analyze the data. The findings of the study revealed that there was a highly significant difference between faculty members' technological integration and students' performance among public and private sector.

Keywords: Faculty Members' Technological Integration, Students' Performance, University Level

Introduction

The development of teaching methods in classrooms is essential to university education's adaptation to the twenty-first century. When developing technology-enhanced teaching activities, five main aspects of classroom learning activities must be assumed: energetic, realistic, productive, helpful, and thoughtful. By improving the education system with proper integrating technology in classrooms, it is feasible to create significant educational activities and fulfill the demands of the twenty-first century. As a result, education systems must be developed with these factors in mind (Çilsalar, 2017). The most difficult aspect of integrating technology is determining how to effectively integrate it into the structure of the teaching and learning plan. It was advised that faculty members spend more time and energy revising their instruction to fit the demands of the

twenty-first century. Although faculty members are supposed to utilize technology for academic reasons in their classrooms, they require a path to incorporate it in a way that promotes learning outcomes and resolves educational challenges quickly and effectively. According to Weidman and Diggs (2001), universities and scholars have been conducting seminars, training sessions, and other events to share their technological skills and experience, which are necessary for integrating technology-enhanced education programs in university education (Sinsel, et al., 2020).

Furthermore, Ocak, et al., (2023) stated that the advancement of faculty members' technical knowledge has become critical in order to help them. However, having technology knowledge does not indicate successful technology integration into teaching because several factors influence faculty members' behavior intention, such as time, infrastructural facilities, technical and classroom practices support, currently offered technological tools and their integration with the sense and material of the course, incentives, motivation and self-efficacy, expectations, and so on (Ocak, & Karafil, 2021). Promoting technology integration behavior intention demands an evaluation of all important aspects to improve faculty members' expertise and personality, allowing for the smooth integration of technology into their curriculum and the enhancement of classroom instruction.

In university education system the integration of technology to support classrooms is a challenging concept to grasp. Because as world largest technology advances, there are a lot of newer applications and programs are launch on daily basis for purposes apart from educational purposes in order to accomplish the ever-increasing needs of learning outcomes. There are several methods to teaching and learning with technology (Burch & Mohammed, 2019). It is essential to keep updating and analyze technology in education in order to meet students' academic objectives (Dolenc & Aberšek, 2015). Due to rapid technological innovations, learners must adjust to new methods of communication by using live chat, which incorporates Pdf documents, movies, and Google Account surveys, among other things (Barak & Levenberg, 2016). According to Singh and Hardaker (2014), the capability to influence technology acceptance is a comprehensive and attractive task. University education institutions leaders must be active in prepare a strategy in order to attract the students. Academic professors and departments who are hesitant to join in these creative projects must be given a clear vision (Farjon, et al., 2019).

Integration of technology is purposeless without the support and commitment of management (Taimalu, & Luik, 2019). Bereczki, & Kárpáti, (2021) stated that, if universities and colleges desire to implement technology, they must overcome various obstacles, including change opposition, poor self-efficacy perceptions about technology integration, and staff acquires. The Makawawa, et al, (2021) study confirmed what some other surveys had shown as hurdles to integration of technology: instructors often expressed a powerful intention to include ICT into in the classrooms but they face significant barriers due to the lack of confidence and competence (Yurtseven Avci, et al., 2020). It is also important to note that it is compulsory to change in our educational technology system which was one of the significant hurdles regarding the updating existing technology system. In recent decades IT had been used in the classroom. In the classroom

instructions, effective integration of technology affects students' performance as well as their learning process. With the help of educational technology, students gain more information and engage with different activities. It also allows for practical experience in educational activities that might be implemented into several areas of the school curriculum, particularly mathematics. Investigating the effectiveness of technology integration on student motivation and engagement permit the learner to communicate with their fellows, also permit them to seek with one another (Kausar, et al. 2023).

Integration of technology had been become more popular in classroom settings. He stated that at educational institutions, instructors should tackle the integration of new technologies in a planned and successful manner (Hilton, 2016). Many experts stated that there were many hurdles to successful integration of technology since integrated technology is a planned and successful procedure. One of the significant challenge that educational instructions face a lot of available ways when IT was old or sometimes limited in stock (Praag, et al., 2015). Inadequate professional training was also the most significant barrier. From early nineties to today's information technology, the use of technological tools in educational institutions has important story. The teachers' try to find several tricks to use IT in their teaching and learning process from last ten years (Kelly, 2015). Sharing knowledge played an important role in educational institutions where the academic staff performed through teaching and learning (Mousa & He, 2022).

Technology has huge role in transforming the working system of faculty and will continue to do so. Tierney (2014) claimed, while mansy universities in their traditional way were challenged by their unwillingness to shift, most of the educational institutions try to accept increasingly developments in IT in order to fulfill the needs of learner by accepting supportable technology. Substantiated technology's goal was to replicate and develop the existing technology. Typewriter firms were the most obvious example of sustainable innovation which is switched beyond manually to electronics. However, not all technical advancements were effective because there were obstacles that required time, money, and concentration (Harrell, & Bynum, 2018). Bradley, (2013) examined that if we provide innovative classrooms as well as technology then pupils give better output. Education in universities was stuck to connect the laws and the need to quickly adjust to accept the needs of fresh and developing learning technologies. As a result, to develop and expand better integration of technology in the classroom, the university education institutions could create active and engaging learning environments. Further, use of technology might have a beneficial influence on learning in academic programs (Hero, 2019). Williams (2016) argued that when the creative ideas come in educational instructions, most of the universities which attempted to implement a technologically innovative technique step away due to the lack of money (Budhai & Williams, 2016).

After several years, there is a noticeable difference in the classrooms, particularly in the way lessons are taught. This is why many instructors understand how to present their teachings in an effective and efficient manner. Because of the rapid advancement of technology in society, educators must include technology into their teaching process. The use of technology integration

in university education provides new facilities for the teaching and learning process. Moreover, it gives one more chance for teachers and students to understand how to create the teaching and learning process more conducive, attractive, and profitable. Furthermore, technological integration is critical in achieving major improvements in classroom efficiency and performance for both instructors and students (Hartman, et al., 2019). There has been a great transformation in the classroom over many years, especially in terms of offering courses in a most convenient way. As a result, many teachers are becoming more innovative in regards of how to give the experience quickly and efficiently. Till then, educators will employ technology since it is the biggest growth sector of society. The increased integration of technology creates new options for learning and teaching. It also gives instructors and students another choice for improving the learning opportunity more pleasant, collaborative, and effective. Technology integration in education is critical for significantly increasing teacher and student productivity and performance in the classroom (Hero, 2019).

Aslan (2020) recognizes that instructors and students, through their equipment and inventive pedagogical routines, qualify as competent members of the class by incorporating technology into the teaching and learning process. Furthermore, using technology to teach can provide ideal results in both teacher and student performance. This demonstrates that the integration of technology is successful in its aim to provide a good reaction in the field of education, particularly in upgrading current schooling. Nevertheless, several studies call into doubt the benefits of incorporating technology into the classroom (Abel, et al., 2022). According to the literature, instructors saw technology integration as helpful to their students' development; yet, their practices and performance did not reflect this increasing value. According to Hero, (2020), faculty members lack the technical expertise required to take advantage of these innovative technologies, going to prevent them from bringing them into the school environment and leaving several more unused in the school. This is supported by the findings which indicate that course instructor must learn about the technology usage at the primary level as well as its integration in the curricula (Kumar, 2022).

Objectives

1. To compare the faculty members' technological integration and students' performance between public and private sector universities in Lahore district.

Population of the Study

Students of all public and private universities in Lahore district was the population. The total number of universities in Lahore is 34 out of which 13 are public and 21 are private universities (HEC, 2022). The study ought to include a sizable student sample. Using a multistage simple random sampling method, the sample was taken. The researcher took three public and four private universities in Lahore through simple random sampling. Three faculties were selected from each university. Faculty was dividing in three parts i.e. social sciences, behavioral sciences and

languages. One department was selected from each faculty through simple random sampling. Data was gathered from students. The sample size was 576 students and 288 students were selected from public and private universities respectively through simple random sampling. Using a multi stage simple random sampling method, the sample was taken. The instruments of this research were questionnaires. By using independent sample t-test, the researcher was to find the Comparison between Technology integration and students' performance among public and private.

Comparison between Technology integration and students' performance among public and private sector

1-1-1- Comparison between Technology integration and students' performance

Table 1

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P ($\propto$ = 0.05)
Technology Integration	Public	181	4.0217	.49752	-1.560	.119
	Private	319	4.0891	.44442		
Students' Performance	Public	181	3.9671	.62317	-2.652	.013
	Private	319	4.1028	.50356		

The following table shows that the groups differed significantly for Technology integration and Students' performance, where the difference was significant statistically. Public university faculty members' (M = 4.02, S.D = 0.497) reflected high level of agreement about Technology integration, while private university faculty members' (M = 4.08, S.D = 0.444) also reflected high level of agreement about Technology integration. Public university faculty members' (M = 3.96, S.D = 0.623) reflected low level of agreement about students' performance, while private university faculty members' (M = 4.10, S.D = 0.503) reflected high level of agreement about students' performance. The difference between the groups' mean scores about Technology integration were not significant, t (498) = -1.560, p = 0.119, at alpha level 0.05. The difference between the groups' mean about students' performance were significant, t (498) = -2.652, p = 0.013, at alpha level 0.05. Therefore, there was statistically no significant difference between public and private university faculty members' regarding the Technology integration and

statistically significant difference between public and private students' performance at university level.

1-1-2- Comparison between Supportive Technology and classroom participation

Table 2

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P ($\propto$ = 0.05)
Supportive Technology	Public	181	4.2079	.53929	-.646	.519
	Private	319	4.2386	.49587		
Classroom participation	Public	181	4.0077	.64269	-2.627	.009
	Private	319	4.1505	.54777		

The table discloses that the groups differed significantly for Supportive technology and Classroom participation, where the difference was significant statistically. Public university faculty members' (M = 4.20, S.D = 0.539) reflected high level of agreement about Supportive technology, while private university faculty members' (M = 4.23, S.D = 0.494) also reflected high level of agreement about Supportive technology. Public university faculty members' (M = 4.00, S.D = 0.642) reflected high level of agreement about classroom participation, while private university faculty members' (M = 4.15, S.D = 0.547) also reflected high level of agreement about classroom participation. The difference between the groups' mean scores about Supportive technology were not significant, t (498) = -.646, p = 0.519, at alpha level 0.05. The difference between the groups' mean scores about classroom participation were significant, t (498) = -2.627, p = 0.009, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Supportive technology and statistically significant difference between public and private classroom participation at university level.

1-1-3- Comparison between Supportive Technology and Home task

Table 3

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P ($\propto$ = 0.05)

Supportive Technology	Public	181	4.2079	.53929	-.646	.519
	Private	319	4.2386	.49587		
Home task	Public	181	3.7558	.84448	-2.203	.028
	Private	319	3.9141	.72790		

The table discloses that the groups differed significantly for Supportive technology and Home Task, where the difference was significant statistically. Public university faculty members' (M = 4.20, S.D = 0.539) reflected high level of agreement about Supportive technology, while private university faculty members' (M = 4.23, S.D = 0.494) also reflected high level of agreement about Supportive technology. Public university faculty members' (M = 3.75, S.D = 0.844) reflected low level of agreement about Home Task, while private university faculty members' (M = 3.91, S.D = 0.727) reflected high level of agreement about Home Task. The difference between the groups' mean scores about Supportive technology were not significant, t (498) = -.646, p = 0.519, at alpha level 0.05. The difference between the groups' mean scores about Home Task were significant, t (498) = -2.203, p = 0.028, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Supportive technology and statistically significant difference between public and private Home Task at university level.

1-1-4- **Comparison between Supportive Technology and class achievement**

Table 4

Variable	**Gender**	**N**	**Mean**	**Std. Deviation**	**t-Value (df = 498)**	**P (∝ = 0.05)**
Supportive Technology	Public	181	4.2079	.53929	-.646	.519
	Private	319	4.2386	.49587		
Class achievement	Public	181	4.0276	.70641	-2.402	.017
	Private	319	4.1636	.54524		

The table discloses that the groups differed significantly for Supportive technology and Class achievement, where the difference was significant statistically. Public university faculty members' (M = 4.20, S.D = 0.539) reflected high level of agreement about Supportive technology, while private university faculty members' (M = 4.23, S.D = 0.494) also reflected high level of agreement about Supportive technology. Public university faculty members' (M = 4.02, S.D = 0.844) reflected high level of agreement about Class achievement, while private university faculty members' (M = 4.16, S.D = 0.545) also reflected high level of agreement about Class achievement. The difference between the groups' mean scores about Supportive technology were not significant, t (498) = -.646, p = 0.519, at alpha level 0.05. The difference between the groups' mean scores about Class achievement were significant, t (498) = -2.402, p = 0.017, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Supportive technology and statistically significant difference between public and private Class achievement at university level.

1-1-5- Comparison between Supportive Technology and Self-confidence

Table 5

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P (∝ = 0.05)
Supportive Technology	Public	181	4.2079	.53929	-.646	.519
	Private	319	4.2386	.49587		
Self-confidence	Public	181	4.0773	.64480	-1.957	.051
	Private	319	4.1831	.54099		

The table discloses that the groups differed significantly for Supportive technology and Self-confidence, where the difference was significant statistically. Public university faculty members' (M = 4.20, S.D = 0.539) reflected high level of agreement about Supportive technology, while private university faculty members' (M = 4.23, S.D = 0.494) also reflected high level of agreement about Supportive technology. Public university faculty members' (M = 4.07, S.D = 0.644) reflected high level of agreement about Self-confidence, while private university faculty members' (M = 4.18, S.D = 0.540) also reflected high level of agreement about Self-confidence. The difference between the groups' mean scores about Supportive technology were not significant, t (498) = -.646, p = 0.519, at alpha level 0.05. The difference between the groups' mean scores about Self-confidence were also not significant, t (498) = -1.957, p = 0.051, at alpha level 0.05.

Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Supportive technology and Self-confidence at university level.

1-1-6- Comparison between Effective assessment and classroom participation

Table 6

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P (∝ = 0.05)
Effective assessment	Public	181	4.0414	.57706	-.852	.394
	Private	319	4.0867	.56771		
Classroom participation	Public	181	4.0077	.64269	-2.627	.009
	Private	319	4.1505	.54777		

The table discloses that the groups differed significantly for Effective assessment and Classroom participation, where the difference was significant statistically. Public university faculty members' (M = 4.04, S.D = 0.577) reflected high level of agreement about Effective assessment, while private university faculty members' (M = 4.08, S.D = 0.567) also reflected high level of agreement about Effective assessment. Public university faculty members' (M = 4.00, S.D = 0.642) reflected high level of agreement about Classroom participation while private university faculty members' (M = 4.15, S.D = 0.547) also reflected high level of agreement about Classroom participation. The difference between the groups' mean scores about Effective assessment were not significant, t (498) = -.852, p = 0.394, at alpha level 0.05. The difference between the groups' mean scores about Classroom participation were significant, t (498) = -2.627, p = 0.009, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Effective assessment and statistically significant difference between public and private Classroom participation at university level.

1-1-7- Comparison between Effective assessment and Home Task

Table 7

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P ($\propto$ = 0.05)
Effective assessment	Public	181	4.0414	.57706	-.852	.394
	Private	319	4.0867	.56771		
Home Task	Public	181	3.7558	.84448	-2.203	.028
	Private	319	3.9141	.72790		

The table shows that the groups differed significantly for Effective assessment and Home Task, where the difference was significant statistically. Public university faculty members' (M = 4.04, S.D = 0.577) reflected high level of agreement about Effective assessment, while private university faculty members' (M = 4.08, S.D = 0.567) also reflected high level of agreement about Effective assessment. Public university faculty members' (M = 3.75, S.D = 0.844) reflected low level of agreement about Home Task while private university faculty members' (M = 3.91, S.D = 0.727) reflected high level of agreement about Home Task. The difference between the groups' mean scores about Effective assessment were not significant, t (498) = -.852, p = 0.394, at alpha level 0.05. The difference between the groups' mean scores about Home Task were significant, t (498) = -2.203, p = 0.028, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Effective assessment and statistically significant difference between public and private Home Task at university level.

1-1-8- **Comparison between Effective assessment and class achievement**

Table 8

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P ($\propto$ = 0.05)
Effective assessment	Public	181	4.0414	.57706	-.852	.394
	Private	319	4.0867	.56771		

Class achievement		Public	181	4.0276	.70641	-2.402	.017
		Private	319	4.1636	.54524		

The table illustrates that the groups differed significantly for Effective assessment and Class achievement, where the difference was significant statistically. Public university faculty members' (M = 4.04, S.D = 0.577) reflected high level of agreement about Effective assessment, while private university faculty members' (M = 4.08, S.D = 0.567) also reflected high level of agreement about Effective assessment. Public university faculty members' (M = 4.02, S.D = 0.706) reflected high level of agreement about Class achievement while private university faculty members' (M = 4.16, S.D = 0.545) also reflected high level of agreement about Class achievement. The difference between the groups' mean scores about Effective assessment were not significant, t (498) = -.852, p = 0.394, at alpha level 0.05. The difference between the groups' mean scores about Class achievement were significant, t (498) = -2.402, p = 0.017, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Effective assessment and statistically significant difference between public and private Class achievement at university level.

1-1-9- Comparison between Effective assessment and self confidence

Table 9

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P ($\propto$ = 0.05)
Effective assessment	Public	181	4.0414	.57706	-.852	.394
	Private	319	4.0867	.56771		
Self confidence	Public	181	4.0773	.64480	-1.957	.051
	Private	319	4.1831	.54099		

The table discloses that the groups differed significantly for Effective assessment and Self-confidence, where the difference was significant statistically. Public university faculty members' (M = 4.04, S.D = 0.577) reflected high level of agreement about Effective assessment, while private university faculty members' (M = 4.08, S.D = 0.567) also reflected high level of agreement

about Effective assessment. Public university faculty members' (M = 4.07, S.D = 0.644) reflected high level of agreement about Self-confidence while private university faculty members' (M = 4.18, S.D = 0.540) also reflected high level of agreement about Self-confidence. The difference between the groups' mean scores about Effective assessment were not significant, t (498) = -.852, p = 0.394, at alpha level 0.05. The difference between the groups' mean scores about Self-confidence were also not significant, t (498) = -1.957, p = 0.051, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Effective assessment and Self-confidence at university level.

1-1-10-Comparison between Learning Infrastructure and classroom participation

Table 10

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P (∝ = 0.05)
Learning Infrastructure	Public	181	3.9134	.64468	-2.267	.039
	Private	319	4.0251	.54053		
Classroom participation	Public	181	4.0077	.64269	-2.627	.009
	Private	319	4.1505	.54777		

The table discloses that the groups differed significantly for Learning Infrastructure and Classroom participation, where the difference was significant statistically. Public university faculty members' (M = 3.91, S.D = 0.644) reflected high level of agreement about Learning Infrastructure, while private university faculty members' (M = 4.02, S.D = 0.540) also reflected high level of agreement about Learning Infrastructure. Public university faculty members' (M = 4.00, S.D = 0.642) reflected high level of agreement about Classroom participation while private university faculty members' (M = 4.15, S.D = 0.547) also reflected high level of agreement about Classroom participation. The difference between the groups' mean scores about Learning Infrastructure were significant, t (498) = -2.267, p = 0.39, at alpha level 0.05. The difference between the groups' mean scores about Classroom participation were also significant, t (498) = -2.627, p = 0.009, at alpha level 0.05. Therefore, there was statistically significant difference between public and private university faculty members' regarding the Learning Infrastructure and Classroom participation at university level.

Comparison between Learning Infrastructure and Home Task

Table 11

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P (∝ = 0.05)
Learning Infrastructure	Public	181	3.9134	.64468	-2.267	.039
	Private	319	4.0251	.54053		
Home Task	Public	181	3.7558	.84448	-2.203	.028
	Private	319	3.9141	.72790		

The following table illustrates that the groups differed significantly for Learning Infrastructure and Home Task, where the difference was significant statistically. Public university faculty members' (M = 3.91, S.D = 0.644) reflected high level of agreement about Learning Infrastructure, while private university faculty members' (M = 4.02, S. D = 0.540) also reflected high level of agreement about Learning Infrastructure. Public university faculty members' (M = 3.75, S. D = 0.844) reflected low level of agreement about Home Task while private university faculty members' (M = 3.91, S. D = 0.727) reflected high level of agreement about Home Task. This shows that there is a significant difference between the groups' mean scores about Learning Infrastructure, t (498) = -2.267, p = 0.39, at alpha level 0.05. The difference between the groups' mean scores about Home Task were also significant, t (498) = -2.203, p = 0.028, at alpha level 0.05. Therefore, there was statistically significant difference between public and private university faculty members' regarding the Learning Infrastructure and Home Task at university level.

Comparison between Learning Infrastructure and class achievement

Table 12

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P (∝ = 0.05)
Learning Infrastructure	Public	181	3.9134	.64468	-2.267	.039
	Private	319	4.0251	.54053		

Class achievement	Public	181	4.0276	.70641	-2.402	.017
	Private	319	4.1636	.54524		

This table shows that the groups differed significantly for Learning Infrastructure and Class achievement, where the difference was significant statistically. Public university faculty members' (M = 3.91, S.D = 0.644) reflected high level of agreement about Learning Infrastructure, while private university faculty members' (M = 4.02, S.D = 0.540) also reflected high level of agreement about Learning Infrastructure. Public university faculty members' (M = 4.02, S.D = 0.706) reflected high level of agreement about Class achievement while private university faculty members' (M = 4.16, S.D = 0.545) reflected high level of agreement about Class achievement. The difference among groups' mean scores about Learning Infrastructure were significant, t (498) = -2.267, p = 0.39, at alpha level 0.05. The difference among groups' mean scores about Class achievement were also significant, t (498) = -2.402, p = 0.017, at alpha level 0.05. Therefore, there was statistically significant difference between public and private university faculty members' regarding the Learning Infrastructure and Class achievement at university level.

Comparison between Learning Infrastructure and self-confidence

Table 13

Variable	**Gender**	**N**	**Mean**	**Std. Deviation**	**t-Value (df = 498)**	**P (∝ = 0.05)**
Learning Infrastructure	Public	181	3.9134	.64468	-2.267	.039
	Private	319	4.0251	.54053		
Self-confidence	Public	181	4.0773	.64480	-1.957	.051
	Private	319	4.1831	.54099		

The following table illustrates that the groups are differed significantly for Learning Infrastructure and Self-confidence, where the difference was significant statistically. Public university faculty members' (M = 3.91, S.D = 0.644) reflected high level of agreement about Learning Infrastructure, while private university faculty members' (M = 4.02, S.D = 0.540) also reflected high level of agreement about Learning Infrastructure. Public university faculty

members' (M = 4.07, S.D = 0.644) reflected high level of agreement about Self-confidence while private university faculty members' (M = 4.18, S.D = 0.540) also reflected high level of agreement about Self-confidence. There is a significant difference of Learning Infrastructure groups' mean scores, t (498) = -2.267, p = 0.39, at alpha level 0.05. The difference between the groups' mean scores about Self-confidence were not significant, t (498) = -1.957, p = 0.051, at alpha level 0.05. Therefore, there was statistically significant difference among private and public university faculty members' regarding the Learning Infrastructure and there was statistically not significant difference between public and private university faculty members' regarding Self-confidence at university level.

1-1-11-Comparison between Technology content knowledge and Classroom **participation**

Table 14

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P ($\propto$ = 0.05)
Technology content knowledge	Public	181	3.9019	.65713	-1.602	.110
	Private	319	3.9894	.54327		
Classroom participation	Public	181	4.0077	.64269	-2.627	.009
	Private	319	4.1505	.54777		

The table discloses that the groups differed significantly for Technology content knowledge and Classroom participation, where the difference was significant statistically. Public university faculty members' (M = 3.90, S.D = 0.657) reflected high level of agreement about Technology content knowledge, while private university faculty members' (M = 3.98, S.D = 0.543) also reflected high level of agreement about Technology content knowledge. Public university faculty members' (M = 4.00, S.D = 0.642) reflected high level of agreement about Classroom participation while private university faculty members' (M = 4.15, S.D = 0.547) also reflected high level of agreement about Classroom participation. The difference between the groups' mean scores about Technology content knowledge were not significant, t (498) = -1.602, p = 0.110, at alpha level 0.05. The difference between the groups' mean scores about Home Task were significant, t (498) = -2.627, p = 0.009, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Technology content knowledge and statistically significant difference between public and private Classroom participation at university level.

1-1-12-**Comparison between Technology content knowledge and Home Task**

Table 15

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P (∝ = 0.05)
Technology content knowledge	Public	181	3.9019	.65713	-1.602	.110
	Private	319	3.9894	.54327		
Home Task	Public	181	3.7558	.84448	-2.203	.028
	Private	319	3.9141	.72790		

The table discloses that the groups differed significantly for Technology content knowledge and Home Task, where the difference was significant statistically. Public university faculty members' (M = 3.90, S.D = 0.657) reflected high level of agreement about Technology content knowledge, while private university faculty members' (M = 3.98, S.D = 0.543) also reflected high level of agreement about Technology content knowledge. Public university faculty members' (M = 3.75, S.D = 0.844) reflected low level of agreement about Home Task while private university faculty members' (M = 3.91, S.D = 0.727) reflected high level of agreement about Home Task. The difference between the groups' mean scores about Technology content knowledge were not significant, t (498) = -1.602, p = 0.110, at alpha level 0.05. The difference between the groups' mean scores about Home Task were significant, t (498) = -2.203, p = 0.028, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Technology content knowledge and statistically significant difference between public and private Home Task at university level.

Comparison between Technology content knowledge and Class achievement

Table 16

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P (∝ = 0.05)
Technology content knowledge	Public	181	3.9019	.65713	-1.602	.110
	Private	319	3.9894	.54327		

Class achievement	Public	181	4.0276	.70641	-2.402	.017
	Private	319	4.1636	.54524		

The table discloses that the groups differed significantly for Technology content knowledge and Class achievement, where the difference was significant statistically. Public university faculty members' (M = 3.90, S.D = 0.657) reflected high level of agreement about Technology content knowledge, while private university faculty members' (M = 3.98, S.D = 0.543) also reflected high level of agreement about Technology content knowledge. Public university faculty members' (M = 4.02, S.D = 0.706) reflected high level of agreement about Class achievement while private university faculty members' (M = 4.16, S.D = 0.545) also reflected high level of agreement about Class achievement. The difference between the groups' mean scores about Technology content knowledge were not significant, t (498) = -1.602, p = 0.110, at alpha level 0.05. The difference between the groups' mean scores about Class achievement were significant, t (498) = -2.402, p = 0.017, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Technology content knowledge and statistically significant difference between public and private Class achievement at university level.

1-1-13-Comparison between Technology content knowledge and self-confidence

Table 17

Variable	Gender	N	Mean	Std. Deviation	t-Value (df = 498)	P (∝ = 0.05)
Technology content knowledge	Public	181	3.9019	.65713	-1.602	.110
	Private	319	3.9894	.54327		
Self-confidence	Public	181	4.0773	.64480	-1.957	.051
	Private	319	4.1831	.54099		

The table discloses that the groups differed significantly for Technology content knowledge and Self-confidence, where the difference was significant statistically. Public university faculty members' (M = 3.90, S.D = 0.657) reflected high level of agreement about Technology content

knowledge, while private university faculty members' (M = 3.98, S.D = 0.543) also reflected high level of agreement about Technology content knowledge. Public university faculty members' (M = 4.07, S.D = 0.644) reflected high level of agreement about Self-confidence while private university faculty members' (M = 4.18, S.D = 0.540) also reflected high level of agreement about Self-confidence. The difference between the groups' mean scores about Technology content knowledge were not significant, t (498) = -1.602, p = 0.110, at alpha level 0.05. The difference between the groups' mean scores about Self-confidence were also not significant, t (498) = -1.957, p = 0.051, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Technology content knowledge and Self-confidence at university level.

Findings

1- The disparity among the groups' mean scores about Technology integration were not significant, $t\ (498) = -1.560$, $p = 0.119$, at alpha level0.05. The difference between the groups' mean scores about students' performance were significant,$t\ (498) = -2.652$, $p = 0.013$, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Technology integration and statistically significant difference between public and private students' performance at university level. (Table 4.67)

2- The contrast among the groups' mean scores about Supportive technology were not significant, $t\ (498) = -.646$, $p = 0.519$, at alpha level0.05. The difference between the groups' mean scores about classroom participation were significant, $t\ (498) = -2.627$, $p = 0.009$, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Supportive technology and statistically significant difference between public and private classroom participation at university level. (Table 4.68)

3- The difference between the groups' mean scores about Supportive technology were not significant,$t\ (498) = -.646$, $p = 0.519$, at alpha level 0.05. The difference between the groups' mean scores about Home Task were significant, $t\ (498) = -2.203$, $p = 0.028$, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Supportive technology and statistically significant difference between public and private Home Task at university level. (Table 4.69)

4- The difference between the groups' mean scores about Supportive technology were not significant, $t\ (498) = -.646$, $p = 0.519$, at alpha level 0.05. The difference between the groups' mean scores about Class achievement were significant, $t\ (498) = -2.402$, $p = 0.017$, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Supportive technology and statistically significant difference between public and private Class achievement at university level. (Table 4.70)

5- The difference between the groups' mean scores about Supportive technology were not significant, $t\ (498) = -.646$, $p = 0.519$, at alpha level 0.05. The difference between the groups' mean scores about Self-confidence were also not significant, $t\,(498) = -1.957$, $p = 0.051$, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Supportive technology and Self-confidence at university level. (Table 4.71)

6- The difference between the groups' mean scores about Effective assessment were not significant, $t\ (498) = -.852$, $p = 0.394$, at alpha level 0.05. The difference between the groups' mean scores about Classroom participation were significant, $t\,(498) = -2.627$, $p = 0.009$, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Effective assessment and statistically significant difference between public and private Classroom participation at university level. (Table 4.72)

7- The difference between the groups' mean scores about Effective assessment were not significant, $t\ (498) = -.852$, $p = 0.394$, at alpha level 0.05. The difference between the groups' mean scores about Home Task were significant, $t\ (498) = -2.203$, $p = 0.028$, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Effective assessment and statistically significant difference between public and private Home Task at university level. (Table 4.73)

8- The difference among the Effective assessment groups' mean scores were not significant, $t\ (498) = -.852$, $p = 0.394$, at alpha level 0.05. The groups' mean scores about Class achievement were significantly different, $t\ (498) = -2.402$, $p = 0.017$, at alpha level0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Effective assessment and statistically significant difference between public and private Class achievement at university level. (Table 4.74)

9- Effective assessment groups' having mean scores were not significantly different, $t\ (498) = -.852$, $p = 0.394$, at alpha level 0.05. The difference between the groups' mean scores about Self-confidence were also not significant, $t\ (498) = -1.957$, $p = 0.051$, at alpha level 0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Effective assessment and Self-confidence at university level. (Table 4.75)

10- The mean scores about Learning Infrastructure groups having statistically difference, $t\ (498) = -2.267$, $p = 0.39$, at alpha level 0.05. The difference between the groups' mean scores about Classroom participation were also significant, $t\ (498) = -2.627$, $p = 0.009$, at alpha level 0.05. Therefore, there was statistically significant difference between public and private university faculty members' regarding the Learning Infrastructure and Classroom participation at university level. (Table 4.76)

11- The groups' mean scores about Learning Infrastructure were significantly different, $t\ (498) = -2.267$, $p = 0.39$, at alpha level0.05. The difference between the groups' mean scores about Home Task were also significant, $t\ (498) = -2.203$, $p = 0.028$, at alpha level 0.05. Therefore, there was statistically significant difference between public and private university faculty members' regarding the Learning Infrastructure and Home Task at university level. (Table 4.77)

12- The difference among the mean Learning Infrastructure scores groups was significant, $t\ (498) = -2.267$, $p = 0.39$, at alpha level 0.05. The difference between the groups' mean scores about Class achievement were also significant, $t\ (498) = -2.402$, $p = 0.017$, at alpha level 0.05. Therefore, there was statistically significant difference between public and private university faculty members' regarding the Learning Infrastructure and Class achievement at university level. (Table 4.78)

13- The variation in mean Learning Infrastructure scores among groups was significant, $t\ (498) = -2.267$, $p = 0.39$, at alpha level0.05. The difference between the groups' mean scores about Self-confidence were not significant, $t\ (498) = -1.957$, $p = 0.051$, at alpha level0.05. Therefore, there was statistically significant difference between public and private university faculty members' regarding the Learning Infrastructure and there was statistically not significant difference between public and private university faculty members' regarding Self-confidence at university level. (Table 4.79)

14- The difference between the groups' mean scores about Technology content knowledge were not significant, $t\ (498) = -1.602$, $p = 0.110$, at alpha level0.05. The difference between the groups' mean scores about Home Task were significant, $t\ (498) = -2.627$, $p = 0.009$, at alpha level0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Technology content knowledge and statistically difference between public and private Classroom participation at university level. (Table 4.80)

15- The difference between the groups' mean scores about Technology content knowledge were not statistically relevant, $t\ (498) = -1.602$, $p = 0.110$, at alpha level0.05. The difference between the groups' of Home Task mean scores were statically significant, $t\ (498) = -2.203$, $p = 0.028$, at alpha level0.05. Therefore, there was statistically not significant difference between public and private university faculty members' regarding the Technology content knowledge and statistical significant difference between public and private Home Task at university level. (Table 4.81)

16- The difference between the groups' mean scores about Technology content knowledge were not significant,$t\ (498) = -1.602$, $p = 0.110$, at alpha level0.05. The group mean scores about class achievement were significantly different,$t\ (498) = -2.402$, $p = 0.017$, at alpha level0.05. As a result, there was no statistical difference between public and private university faculty members' regarding the Technology content knowledge and statistical difference between public and private Class achievement at university level. (Table 4.82)

17- The difference between the groups' mean scores about Technology content knowledge were not significant,$t\ (498) = -1.602$, $p = 0.110$, at alpha level 0.05. The variance in mean self-confidence scores among groups was also not significant, $t\ (498) = -1.957$, $p = 0.051$, at alpha level 0.05. Therefore, there was statistically not significant variance among public and private university faculty members' regarding the Technology content knowledge and Self-confidence at university level. (Table 4.83)

Conclusion

It was concluded that the use of technology in the classroom has grown in popularity. According to him, educators at educational institutions ought to approach the successful and well-planned integration of modern technology (Hilton, 2016). Since technology integration is a planned and successful process, several experts claimed that there were numerous obstacles along the way. One of the major problems with educational instructions is that there are many ways to access IT when it is outdated or occasionally has limited stock (Praag, et al., 2015). The biggest obstacle was also inadequate professional training. The history of the use of technology in educational institutions, from the early 1990s to the present, is significant. Teachers look for various ways to incorporate IT into their lessons and instruction. The history of the use of technology in educational institutions, from the early 1990s to the present, is significant. Over the past ten years, educators have tried to come up with various ways to include IT into their lesson plans (Kelly, 2015). In educational institutions where academic staff members engaged in teaching and learning, knowledge sharing was crucial.

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