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## THE USAGE OF TECHNOLOGY TOWARDS STUDENTS' PERFORMANCE

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### Abstract

The research addressed the implementation and benefits of usage technology. This study is important that will give the contribution to universities students. There is huge impact appear in students' performance either positive or negative to the student. Other than that, this study also give impact to the body of knowledge. In doing the research, we had proposed new framework as before this there is no framework exist about the implementation and benefit of the usage of technology towards student's performance. The research framework in this study can be used by people to accomplish their work.

**Keywords:** benefits, implementation, students, technology, usage

### 1. Introduction

Many new implementations of technology can improve the efficiency in educations. An advancement is considered as an item or benefit that's modern to its engineers and/or to its potential clients (Klein & Knight, 2005; Ochara, Kandiri & Johnson, 2014). Advancement implementation implies the skilful, committed and reliable utilize of an advancement by people, groups or organizations (Klein & Sorra, 1996; Ochara, Kandiri & Johnson, 2014).

The existence of today's technology is beneficial to everyone in all things including business, education and so on. Nowadays, education is a great way of using technology to facilitate the teaching and learning process, especially in providing information to students, facilitating time management of students to complete a task given. The foremost critical component that strengthens the usage of modernization within the instructive framework is web (Al-Hariri & Al-Hattami, 2016). Simply to say, with the survival of digital technology it is enable students to connect with their teachers and classmates anywhere and anytime (Balasubramanian, & Fukey, 2014). Because of this, it offers students expanded choices and openings within the setting of online instruction. Going with this advancement has been progressing investigate into the relative adequacy and proficiency of instructive technology to upgrade learning and accomplishment (Rabah, 2015).

Based on the research, there are numerous of studies done in order to evaluate the usage of technology towards student performance (Rabah & AlJeraisy et al., 2015). According to the prior researcher, that there's no argument that ICT features a positive impact on the scholarly accomplishment of uncommon needs students. It is seen as an apparatus that effectively underpins the scholastic victory of the understudy with learning troubles and makes a difference the understudy accomplished certain

competencies, in addition to being more engaged in the classroom (Rabah, 2015). It should be noted, however, that online discussions, or more specifically, reading through threaded discussions, can be time consuming, and students are often discouraged when there are too many posts to read, particularly when posts are lengthy. After a close examination of such instances, discussion boards could be portrayed as being both effective and ineffective (AlJeraisy et al., 2015). This study conducted to assemble the implementation and benefits of technology towards student performances. The purpose of the research is to identify the usage of technology towards students' performance.

## 2. Literature Review

### 2.1 *The Implementation of Technology towards Students' Performance*

The implementation of technology isn't a choice. In any case, teachers must completely think through what abilities they are developing in their students (Pretzer, 1997; Pate, 2016). Technology implementation is the essential centre of most educational proficient advancement and keeps up a restraining infrastructure on most of educational subsidizing (Pate, 2016). The implementation of new technology in education gave more positive impact to students' performance. With the latest implementation, it makes learning more flexible.

#### 2.1.1 *Mobile Learning*

Mobile learning (M-learning) can be define as a conveyance of learning to students anytime and anyplace through remote portable gadgets for examples the personal tablet computers, smart phones and personal digital assistants (PDAs) (Buabeng-Andoh, 2018). In mobile learning classes, the teaching and learning can shift from teacher lecture to student discussion (Cavanaugh et al., 2013). Meanwhile, Garrett, Jackson & Wilson (2015) believed the implementation of new mobile augmented reality (AR) technologies have the potential to improve the students' performance. The implementation of technology have been applied in many field in education. Nursing education is one of the field where mobile learning is highly in demand, because it emphasises the practical skills in numerous learning settings, such as the classroom, research facility, and clinical settings (Li et al., 2017). Nursing students are the medical caretakers of the future. They are anticipated to apply information and communication technology (ICT) in their future career. Thus, it is vital to know their information and application of mobile technology in their learning (Buabeng-Andoh, 2018).

#### 2.1.2 *Information Technology*

Information technology (IT) is an innovation which been using computers to organize, process, store and exchange information. Nowadays information technology (IT) has ended up be an irreplaceable component of our lives and completely changed the way we fulfil the day-to-day activities (Garg, Shukla &

Kendall, 2015). In addition, IT portfolio management (IT PoM) makes a difference for organizations to oversee their IT resources by recognizing dangers, benefits, costs, and arrangement of each IT resource and giving administrators with all-encompassing view of their IT resources in arrange to form better-informed IT-related decisions (Ajjan, Kumar & Subramaniam 2016). While technology provide fast information, at once can open up more entryways for around the world communication quicker than ever Pate, (2016) highlighted there is also a threat of united thinking. However, Law et al., (2017) believed that students are capable and skilled to used information technology as it is affordable to them.

### *2.1.3 Blended Learning*

Blended learning is a mixed of online and traditional classroom teaching and learning process. Based on Paturusi, Usagawa & Lumenta, (2016), blended learning strategies gotten to be more widely employed, in this learning program learners not only can access the learning information. Besides they are able to communicate with both teachers and other students in a remote mode. More recently, Vissersa et al., (2018) stated that blended learning can incorporate tasks like collaborative creating of documents, composing web journal posts, micro-blogging within the form of status updates and subscription to news feeds to updates other course individuals. In the meantime, Henrickson, (2016) believed that online economic education is second rate, as teaching and learning must have more traditional classroom involvement.

### *2.1.4 Analysis Review*

Table 1 is the analysis of review related to the implementation of technology towards students' performance. The table shows about previous studies that mentioned the new implementation of technology in educations that enhance students' performance over the years. Based on the table, the advancement of mobile learning and the new development of information technology have been mentioned the most in previous studies. While, the implementation of blended learning was the least to be discussed. It is because, blended learning still a new program that have been introduced in teaching and learning process.

Table 1. Analysis review

Authors	Mobile learning	Information Technology	Blended learning
Garrett, Jackson & Wilson (2015)	✓		
Garg, Shukla & Kendall (2015)		✓	
Ajjan, Kumar & Subramaniam (2016)		✓	
Li et al. (2017)	✓		
Buabeng-Andoh (2018)	✓		
Vissersa et al. (2018)			✓
Law et al. (2017)		✓	
Pate (2016)		✓	
Paturusi, Usagawa & Lumenta (2016)			✓
Henrickson (2016)			✓
Cavanaugh et al. (2013)	✓		

## 2.2 Benefits of Technology towards Students' Performance

### 2.2.1 Satisfaction

Research thinks about that have been conducted into how understudies passage in online courses versus face-to-face courses, in expansion, investigate has compared students' satisfaction with different course situations. A few subjects got to be apparent after students' study reactions with respect to their generally fulfilment with the online course were considered. The evident from these comes about that the understudies within the exploratory cohort felt the interaction and collaborative involvement to be a positive one that made a difference increase their information and understanding of the course material (Balasubranian, V & Fukey, 2014). Ifinedo (2017) indicated the result from one of the address from the overview is reliable with past thinks about that appeared that affirmation and satisfaction are emphatically related within the setting of learning innovations. In the other experiment, Yang et al. (2014) showed the result examination of the chat log uncovered the positive result which is the fulfilments level of the group individuals within the cross-cultural online collaboration between two nations. Understudies were active and locked in within the first two weeks, and they were fulfilled with the method of knowing each other and approximately their culture, which would cultivate social mindfulness and feeling to relate as a bunch (Yang et al., 2014). According to the other survey, most how respondent outline their fulfilment with computerized innovation that's issues of usefulness, responsiveness and an ease of being able to discover one's way around the requests of college environment (Henderson, Selwyn & Aston, 2015). On the other hand, both student and teachers shown their satisfaction with utilizing innovation in educating and learning handle which innovation can offer assistance understudy to progress their certainty and can contribute to superior social and brain research abilities (Smeda, Dakich & Sharda, 2014).

### 2.2.2 Effectiveness

According to the prior researcher, that there's no argument that ICT features a positive impact on the scholarly accomplishment of uncommon needs students. It is seen as an apparatus that effectively underpins the scholastic victory of the understudy with learning troubles and makes a difference the understudy accomplishes certain competencies, in addition to being more engaged in the classroom (Rabah, 2015). Meanwhile, Palaigeorgiou & Grammatikopoulou (2016) found about the motivational impacts on students, the openings for making items and communicating their efforts, the modern time-space of intelligent and the relationship with their instructors are reliable with what other teachers have detailed with respect to instructive possibilities of Web 2.0 devices. All these characteristics can work as determinative triggers of compelling learning. On the other hand, online considering complies with the adaptable learning needs of millennial understudies, it opens up "in class/contact time" for successful help of learning and it helps to diminish the value-based separate between understudies and teachers in huge student groups (Oordt & Mulder, 2018). In specific, students report the instructive benefits of computerized innovation are more precisely portrayed as concerned with the coordination of college consider instead of things related straightforwardly to learning prepare. Numerous of them reactions related to utilize of advanced innovation to find and recover diary articles and books, to yield assignments, to work out course necessities and planning issues, to expend address substance and so on. That can be compelling towards students' scholarly exhibitions (Henderson, Selwyn & Aston, 2015). Barhoumi (2015) released the past think about who investigate the viability of the blended learning handle utilizing advanced technology. The result of the past ponder affirms the result of the think about by Williams, Birch and Hancock illustrating that online addresses are more successful when combined with going to face-to-face addresses.

### 2.2.3 Performances

Based on the capabilities of digital technology, it increases student's motivation to learn as well as enhancing the students' academic performance. But however, it was not recommended because the utilizing of digital technology could be portrayed as being both effective and ineffective towards students' performances (AlJeraisy et al., 2015). The nature of the internet 2.0 exercises too challenges the introduced hones for surveying students' execution, once the understudies wrapped up their extend, the analysts talked about how they may assess in case understudy had learned history. It was not conceivable with the ordinary way (Palaigeorgiou & Grammatikopoulou, 2016).

Meanwhile, Carver (2016) indicated that computerized innovation can increment student inspiration, state of mind, engagement as well as self-confidence. All of the components taken together were found essentially make strides school participation and scholarly execution. Same goes as Ogirima, Ohawuiro & Oyeniran (2017) assistive innovation gives understudies with extraordinary needs more prominent control over the learning encounter, makes strides their communication aptitudes and makes a difference them to perform assignment freely which improving their scholastic exhibitions. Al-Hariri & Al-Hattami (2016) demonstrated that the application of innovation

in instruction must be possibly profitable implies of making a great learning environment that can offer assistance teaches ended up more proficient in moving forward students' capacity and understanding through basic examination. Through this, he found understudies are more likely to remain locked in and innovation makes a difference make educating and learning physiology more significant than without such openings.

#### *2.2.4 Students' Engagement*

According to the prior research, they found that technology can be used and this will make students' engagement will be higher as well as the school will surely feel an enhancement in student achievement results because individualized learning and interest levels of the students will be much higher (Rabah, 2015). Individuals who are get involve positively in a working group believe that their needs can be satisfied through working cooperatively and collaboratively with other people (Barhoumi, 2015). Barhoumi (2015) also confirmed the importance of an online social existence in helping learners become more engaged. According to another researcher, also indicated the same thing that digital technology use encourages students' engagement with teaching materials and socialize with classmate (Ifinedo, 2017). Digital technology is more effective than confront learning and it acknowledge that the factors impacting student performance is a combination of the usage of technology as well as educational changes to rise student participation by meeting student needs for stretchy learning (Oordt & Mulder, 2018). According to Carver (2016) research, the crucial reason teachers chose to use technology was because they felt it resulted in increased student engagement.

#### *2.2.5 Analysis of Review*

Table 1 shows the analysis of previous studies on the benefits of usage technology towards students' performance. The study found that among the most issues that were discussed in terms of student learning are effectiveness and student's performance with the utilize of technology in the classroom. This because the usage of digital technology has relationship between teachers and students in education that can help in teaching and learning process as well as enhancing students' performances specially to complete their homework. However, other issues that were discussed even though there was not much in the study were the satisfaction and student engagement on the use of digital technology.



Table 2. Analysis review

Authors	Satisfaction	Effectiveness	Performance	Student Engagement
Ifinedo, (2017)	✓			✓
Ogirima, Ohawuiro & Oyeniran, (2017)			✓	
Carves, (2016)			✓	✓
Palaigeorgiou & Grammatikopoulou, (2016)		✓	✓	
Rabah, (2015)		✓	✓	✓
Bouhnik & Deshen, (2014)		✓		
Henderson, Selwyn & Aston, (2015)	✓	✓	✓	✓
Yang et al., (2014)	✓	✓	✓	
Oordt & Mulder, (2018)		✓		✓
Barhoumi, (2015)		✓	✓	✓
AlJeraisy et al., (2015)	✓	✓	✓	✓
Cheema & Zhang, (2013)		✓	✓	
Mathupayas, (2013)		✓		✓
Balasubranian, V & Fukey, (2014)			✓	✓
Al-Hariri & Al-Hattami, (2016)		✓	✓	
Smeda, Dakich & Sharda, (2014)	✓	✓		✓
Jaradat, (2014)		✓	✓	
Ventakesh, Croteau & Rabah, (2014)	✓	✓		
Kazu & Demirkol, (2014)		✓	✓	

### 3. Proposed Framework

Figure 1 shows a purposed framework that shows the variables. The implementation of technology towards student's performance is a Dependent Variable (DV), which is our main purposes. While, there are three Independent Variables (IV). Independent Variables is something that can influences the changes in Dependent Variable. All of the variables have been discussed in sub-topic. In these study, the Independent Variables are; 2.1.1 mobile learning, 2.1.2 information technology and 2.1.3 blended learning.

Figure 1 shows the purposed framework to guide the research on benefits the usage of technology towards student performances. Research studies indicate that 2.2.1 satisfaction, 2.2.2 effectiveness, 2.2.3 performances and 2.2.4 students' engagement has influence on the benefits of the usage of technology in education. That is, when students have a positive impact in learning using digital technology, so their academic achievement will not be easy to decline.

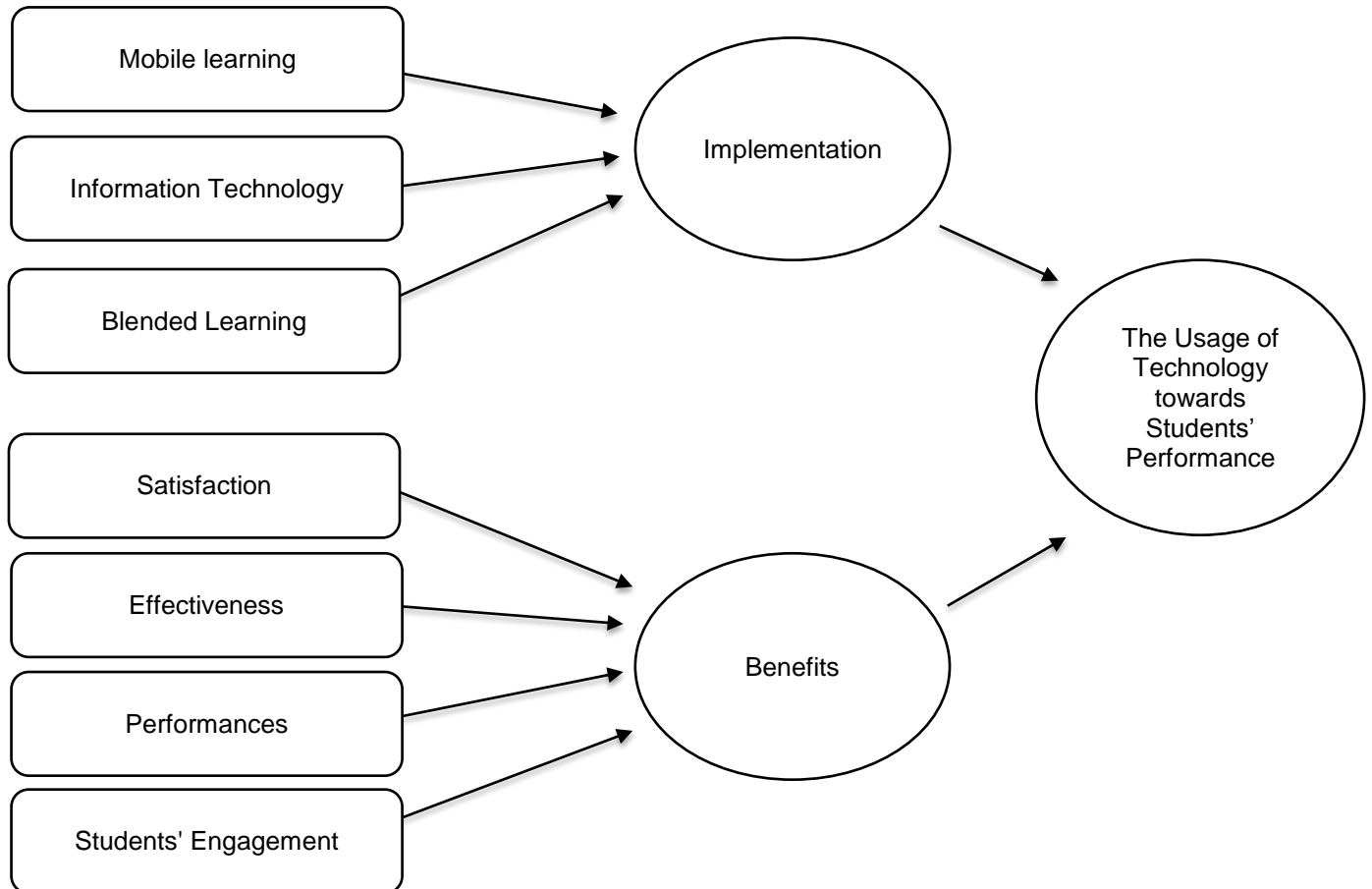


Figure 1. Purposed Framework

#### 4. Conclusion

The implementation of technology can be an intelligent device in evaluating the knowledge that students have in a certain field of education. A successful innovation can be measured when it is implemented effectively as it been used consistently. In education, when the teachers and students are able to acquire skills and used of the new technology properly, it can be considered as an



achievement. Successful technology integration is accomplished when the use of innovation is routine and straightforward, in the meantime, the innovation supports curricular goals. In conclusion, computerized innovation in instruction can improving educating and learning prepare in numerous ways. The esteem of instructive innovation settings depends on the objectives it serves and how it is utilized by the instructors and understudies within the classroom. As in ponder inquire about, it makes a difference the human capacity to shape and alter the physical world to meet needs, by controlling materials and devices with strategies. Today technology has actually created a generation capable of interacting with and learning process in the classroom. Moreover, technology has the ability to enhance relationships between teachers and students. More than ever, educational technology plays crucial role in teaching because with the help of various applications for distance education, teachers and student themselves, they can see the importance of technology in education.

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