The Benefits and Concerns of Communication Technologies in Education

Anagrolia Faustino [a*] and Inderpreet Kaur [a]

[a] *University Institute of Teachers Training and Research, Chandigarh University, Gharuan, India.*

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Review Article

ABSTRACT

The review understands learning using communication technologies as the solutions for education in 21st century. The teachers are trying to adapt the uses of technologies in learning and teaching. Students learn from their teachers with the use of technologies. The use of equipment like computers, computers Programmers, speakers, cameras, and equipment's for disable students in the classroom facilitate learning in the class creating an inclusive environment in the classroom. The focus of the present study is to analyze various papers on Learning and communication technologies in line with effectiveness in the process of teaching and learning from 2013 up to 2021 July. The study selected 30 articles using Google scholar in getting the data from the different journals. The results indicated the interest's and attitude in technologies in learning process as well as the system has advantages for both students, teacher and solve the student's diversity needs. Due to some challenges faced, by the use of communication technologies the study suggested that the government should support the system especially in rural area. Training is required for teachers to increase the motivation level for better learning outcomes. Special consideration should be made for students with disabilities. The review suggested the next review to be done in relation to the effectiveness of technologies in assessment and examination process for the students with disability.

*Corresponding author: Email: anagroliafaustino2014@gmail.com;

1. INTRODUCTION

Learning and Communication technologies are two sides of the same coins. These parts support each other in the process of gaining knowledge through different tools. Teachers and students accept the new ways of learning by using technologies. Learning with technologies use programs and equipment's in teaching. The students and teachers share information, with integration to technologies. This is very effective communication which needs feedback. The learning is the two-way communication. Learning changes from traditional classroom. The previous classes have teacher, students, with interaction to blackboard. The students use their exercise book, and text to memorize in the class. The student listens from the teachers for understanding. The class must be physically. The teaching and learning process became better whereby communication technologies integrated in learning and teaching [1].

The students use mobile phone, presentation software, and digital camera in the learning. In support of the idea learning through technology is not about the use of computers to send the information rather its interaction with technologies in learning process. In order for learning to take place need, it allows the sharing information from the teacher to students. Forum used in teaching process for better achievements to students (Yonatan, 2015). The students learn by interacting with the technologies equipment's under the guidance of the teacher. For example, the teacher teaches the students using a microphone or speaker. The teacher teaches the students to understand well in a class. The students can hear with full voice from the teacher. The classroom occupied with uses of printed, materials, audio materials and online materials like emails. The use of email helps parents, teachers and students to share information in a simple way. Teachers can send email to all students to do the work. The study gives out the important of learning and communication technologies.

1.1 The Objective of the Study

The aim is to analyse learning and communication technologies. The discussion based on students/students with diversity and teachers. The study selects 30 articles from 2013 up to 2021 July. This is time technologies were highly integrated in learning. The discussion gives challenges of communication technologies. The author mentions some suggestions and recommendations' concern the use of communication technologies.

1.2 Methodology of the Study

The review use Google scholar as the search engine to get the data. The review select 30 articles range from 2013 up to 2021 July. This time technologies mostly used in learning process. The articles included the developed and developing countries. The study selects the data by searching on the articles written on learning and communication technologies.

2. LITERATURE REVIEW

The review of literature based on the three most dominant users of communication technologies in learning and teaching process. The students are the first who get benefit by learning using communication technologies. The students with diversity also access learning through technologies. Teachers help students to learn using communication technologies.

2.1 Communication Technologies and Teachers

The 21st century brings the World in the classroom by interaction with technologies with internet (Tucker, 2014). The learning process, teaching approaches, experiences and interactions associate with technologies and learning process agree that the one who has the information is the one who wins.

The study of grammar, phonetics, spelling, listening, writing, and speaking skills became easy through the use of technologies in the classroom [2]. The teacher should integrate programs which intended for students who cannot hear and watch. The programmers can be from you tube based on the specific topic. The use of computer programmers and recording video for helping students to understand how to pronounce some words especially in teaching Phonology.

New language can be learned easily through the use of technologies [3]. The use of electronic text book, encyclopedia, references, mail, and multimedia projector used [3]. The students can

learn foreign language then it will be simple for them to use the internet sources and electronic resources in the classroom. On the same ideas writing competent is learned well with the integrations of computer programme. The introduction of spelling check, grammar checking and plagiarism detection [4]. This makes the writing to be pure and good. The new roles and materials developed to be used with teachers and students in the classroom [5]. The teacher needs to integrate the use of computers, speakers in learning process. The integrations of technologies in the teaching system led to blended learning [6]. This is applicable when the teacher and students use computers programmers to teach the students in the classroom.

The uses of communication technologies lead to master the Research as a major part of learning where by most of the platforms explain on how to write the research [7].

2.2 Communication Technologies and Students Diversity

Learning for people with dementia involves interaction with assistive technologies [8].

The learners with special needs access learning through technologies. This means that the learners who have disability can enjoy the classes due to the uses of some technologies which can help them to hear well, help them to write and to read well (Sympathonia, 2016). On the same vein the disabled students have equal opportunities to access learning. For example, Braille machine used for students who are blind and can use it to learn [9]. Also, the students who cannot hear well provided with hearing equipment for increasing the voice. This motivates students to come in the class without. This is helpful in the teaching process as communication technologies became as the new way of teaching and everyone can access education. On the same vein the learning for people with dementia involves interaction with assistive technologies [8]. This helps in speech recognition, reading and to visual ways.

The teacher manages to teach the students with disability through the integration of communication technologies [10]. This is where by the availability of mobile phones, internet sources and electronic resources which favor students with disability are available. So, this helps the students to enjoy the learning and it

help to minimize the gap between the students with disability from the students without disability on how to access learning by using the new system globally.

3. CHALLENGE OF USING COMMUNI-CATION TECHNOLOGIES

The lack of competent from the teachers, poor government support, and lack of training as well as poor ICT infrastructures cause the poor use of technologies in the classroom. Students don't understand and interested with the class [11]. For example, the teacher is teaching and the students concentrating but suddenly the electricity or network jam. Students develop negative attitudes towards the [11]. Fail to balance time with subject and laptop is a challenge in Mathematics, English and science [12].

The higher-level students challenge the use of communication technologies as the weak in infrastructures, lack of professional and curricular, lack of resources, lack of leadership support and the challenge in evaluation process by using technologies for students is very problem for both teachers and the students [13].

African countries face challenges on poor professional skills and poor infrastructures to support the teaching and learning process as well as the poor attitudes to the uses of computers and online learning [14].

The teachers from the rural areas lack knowledge on how to integrate the communication technologies in the classroom [15-18]. This affect students learning with the use of communication technologies. The need of training for teachers and students from the rural areas will help the uses of communication technologies in the classroom at remote areas.

4. SUGGESTION AND RECOMMENDA-TION

- Monitoring students during online exams should be maintained. The students manage to do exam online but there are some cheatings. For example, the students can Google the answers while doing online exams. The students will be doing exams using laptop or computer but will use the mobile phone to Google the questions because the computer only sees the face of

the students not the whole body of the students.

- The need of availability of the technologies for both students and teachers integrating curriculum with technologies in teaching and learning process.
- Discipline should be highly maintained in the classroom. The teacher facilitates teaching and monitors the students in learning. This is necessary due to the flexibility of the technologies like video records, camera, speakers and computers [19-22]. This will make the students concentrate to the content and technologies rather than other activities like playing games in computers.
- The teachers also need to check the materials before taking them to class. This will help in time management and comfortable of a teacher.
- There is a need of update teachers professional towards the use of technologies.
- Evaluation format should be from different assessment. Writing, presentations, quiz, rather than rely only on the multiple-choice questions with overloaded questions. Some of Multiple-choice questions are not relating to content which was delivered to students. The teacher needs to calculate the time in relation to the number of questions given to students. The questions should be constructed by the teacher rather than copying the questions from Google and paste to exam and sometimes the questions not measure the content which was delivered to students. This will cause a high number of students to fail the exam while the content delivered to them was understood [23-25]. Another problem this will make the students not read and prepare for exams just say 'I will Google the questions because even if I will read nothing comes from my content.
- Apart from having the positive side of integrating technologies still it cannot replace the traditional learning totally. There is a need of integrating technologies to traditional learning for better education with lifelong learning. This will help the students and teachers in rural areas.

5. CONCLUSION

The review understands learning using communication technologies as the solutions for education in 21st century. The teachers are trying to adapt the uses of technologies in learning and teaching. Students learn from their teachers with the use of technologies. The use of equipment like computers, speakers, cameras, and equipment's for disable students in the classroom facilitate learning in the class creating an inclusive environment in the classroom [26-30]. The focus of the present study is to analyze various papers on Learning and communication technologies in line with effectiveness in the process of teaching and learning from 2013 up to 2021 July. The study selected 30 articles using Google scholar in getting the data from the different journals. The results indicated the interest's attitude in technologies in learning process as well as the system has advantages for both students, teacher and solve the student's diversity needs. Due to some challenges faced, by the use of communication technologies the study suggested that the government should support the system especially in rural area. Training is required for teachers to increase the motivation level for better learning outcomes. Special consideration should be made for students with disabilities. The review suggested the next review to be done in relation to the effectiveness of technologies in assessment and examination process for the students with disability.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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