EXPLORING THE TEACHER AND LEARNER PERCEPTIONS OF A TECHNOLOGICAL FRIENDLY CLASSROOM

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ABSTRACT
Technology holds a relevant and unique place in the school curriculum as it is important for a better living of the individual. But, it is known that most of the teachers are considering technology handling as difficult. This study examines the perception by secondary school students and teachers in technology integrated learning and teaching. Sixty secondary school students and fourteen teachers participated in the survey. The questionnaires on perception of students and teachers used to collect the data and comprises of closed as well as open ended items. The study incorporated cognitive, affective and environmental reasons that contribute to perception about technology integration. The factors that make difficult for the teachers include distraction, ICT support, Infrastructure, Professionalism. Further analysis revealed that students' responses include both positive and negative. Little variation in teaching, lack of knowledge in handling, too fast class, are some of the negative responses from the students. According to teachers, students' lack of effort and prerequisites are the major reasons for keeping away the technology integration in classroom instruction. Reluctance to seek help from others, inattention in the classroom and students' distraction were also perceived to contribute toward why there is unsuccessful integration of technology. Teachers reported also that, lack of infrastructure and professionalism are causing main huddle in this. The findings indicate the need for teachers to realize the importance of making technology integrated classroom interesting for students to take effort in learning it. The result is discussed in relation to students' perception in classroom teaching.
Keywords: Technology, Learning, Teaching, Integration, Perception

INTRODUCTION

Technology refers to any type of application used to store, create, exchange and use information. Classroom technology may consist of computers, laptops, projectors, cell phones, social media and the Internet for effective transaction of content. These new technologies are powerful tools to help schools meet the needs of diverse student populations. Digital devices, software, and learning platforms offer an incredible collection of options for adapting education to each specific student's academic strengths and weaknesses, interests and motivations, personal favourites, and optimal pace of learning. Finn & Ledbetter (2013) found that university students want their teachers to use technology in the classroom. For better results each Students' learning environments should be flexible and structured in ways that support their individual goals. Digital tools helps for effective transaction process. Educational software and applications have grown more "adaptive," than the conventional ones relying on technology to determine not only what a student knows, but what learning process is, and the behavioural state. For all the technological progress in the classroom, implementation remains a major challenge. Schools and educators continue to struggle with the changing role of teachers. They don't know how to balance flexible and "personalized" models with the requirements they still must meet, and the deeper cultural challenge of changing educators' age-old habits and practices. Furthermore the concept of integrating technology to backing classrooms in the higher education system is a challenging topic. World experiences rapidly changing technology, newer applications and programs are evolving every day. These technology are for meeting the needs other than educational purposes to meet the growing demands of student learning. Student always look for different ways of learning and teaching with technology (Dolenc & Abersek, 2015). Teachers have to be continuously update and evaluate educational technology in order to fulfil the educational goals of the students.

CHANGING CLASSROOM PRACTICES

The transition to digital instructional materials is happening slowly, for reasons that range from the financial to the technical. Technology has become a central part of knowledge transmission (Siegel & Claydon, 2016). Many schools use a mix of digital resources, pushing potential benefits such as greater ability to personalize, higher engagement among students, enhanced ability to keep content updated and current, and greater interactivity and adaptivity. Students, especially those in rural and remote areas, technology can open more horizons. Online and distance learning can offer access to courses, subjects, to learners. Such opportunities can also benefit advanced and highly motivated students and those with unusual schedules and travel requirements, and be a useful tool to

keep schools running during adverse days. Studies on the use of mobile technologies in learning (Briz-Ponce & Juanes-Mendez, 2014; Huang, Lin & Chuang, 2007), reveal that m-learning is found to be increasing the student independence, commitment, and communication (Dunn, Richardson, Oprescu & McDonald, 2013). Students learn differently. Some are visual learners and can understand the material by the show-and-tell while others prefer reading first and then illustrating. Technology helps in providing the instructional material according to students learning styles.

THEORETICAL BACKGROUND

Back (2016) found that students who regard their learning environment as positive perform better academically and experience positive student-teacher relations (Raufelder et al. 2016). They choose various resources to support their learning. Technology helps them a lot in this regard. If the students are active while using technologically supported classroom, makes them feel more like 'subjects' in teaching, rather than 'objects' for teaching, they will definitely enjoy a more positive learning environment (Manca, 2016). Many researches has done on teachers and focused on their use of or opinions about using ICT integration (Olofsson et al. 2017) and their competencies and strategies to enact ICT in teaching (Keane and Keane 2017). Still there is a dearth of in getting enough inputs to improve the process. Flipped classroom and mobile code-using are now a days focus of research to infuse that into our classroom (Keane, 2017 and Limniou et al. 2018). Teachers' efforts to build relations and recognise students' views are central components of teaching (Raufelder et al. 2016). Innovative pedagogies make way for the same and make it more educational. Research studies on students on their use and views of ICT in general (Olofsson et al. 2018) and of specific digital hardware, software or applications in particular (Towndrow and Fareed 2015) gives direction for the educationists where teachers have to emphasis most so that the desired outcome will follow.

SIGNIFICANCE OF PRESENT STUDY

It is very essential to know before integrating ICT in classroom that what are teacher's capacities, attitudes, and ideas concerning technology (Claro, 2010). It is desirable to have an active and positive attitude which is highly motivating for the student body (Hinojo et al., 2002). All the teachers should have the ability to transmit educational content in an innovative way, motivating the use of ICTs, and producing new knowledge without ceasing to reach high, necessary academic levels by utilizing technology. Being the teachers a determining piece in the process of ICTs incorporation in the classroom, it is essential to investigate their processes of adoption of technology and determine whether the innovative characteristics of them are related to the intention to use ICTs in the classroom.

Technology integration can't be done without relevant prior knowledge. It differs from instruction process for its abstract nature, demand of higher cognitive process and engagement and perseverance from learner. It is found that as the students move to higher grades, the knowledge in technology helps them a lot. From this point the investigators felt a necessity to study the perception about the impact of technology in classroom communication. For taking further action to improve students' involvement in classroom communication it is necessary to analyze how they perceive such classes. It is essential to examine students' attitudes toward technology and learning, especially with the increase in popularity of social media. This study is analyzing students' affective beliefs and teachers' perception regarding the impact of technology integration and classroom communication instead of checking their mastery of relevant prior knowledge. Teachers were probed through semi structured interview about possible reasons and the open ended were used to probe into student perceptions.

STATEMENT OF THE PROBLEM

The present study is stated as the perception of secondary school students and teachers in technology integrated learning and teaching.

OBJECTIVES OF THE STUDY

- To know the perceived reasons of teachers on technology integrated classroom instruction
- To know the perception of students on technology integrated classroom instruction
- To find out the correlation between Students' perceptions of Technology integrated classroom with perception of teachers
- To find out the significant difference between the male and female students' perceptions on technology integrated classroom instruction

HYPOTHESIS OF THE STUDY

- There will be significant relationship between Students' perceptions of Technology integrated classroom with perception of teachers

- There will be significant difference between the male and female students' perceptions of on technology integrated classroom instruction

METHODOLOGY

Method

Descriptive survey method is used in the study

Participants

The sample comprises of sixty secondary school students (30 boys and 30 girls) and fourteen teachers (6 females and 8 males) with experience ranging from ten to thirty years, from Urdu and English medium schools in Telangana.

Instrument

Students' data is collected with the help of Impact of Technology in classroom instruction questionnaire. The tool includes both closed and open ended items. The teachers' data is collected with the help of Impact of Technology in classroom instruction: teacher perception questionnaire. This questionnaire has mainly three sections; one is regarding teachers' perception which includes reasons related to cognitive, affective and control of learning environment, second part is about positive and negative sides faced in teaching through technology, and the last part is about their teaching style and strategy use.

Procedure

Prior to data collection, good rapports was created with students and were ensured of their anonymity. Each question were explained by the investigators and allowed time to respond.
Approximately thirty minutes were allowed to students for completing the questionnaire.

Data Analysis

Qualitative as well as quantitative methods were used for data analysis. Percentage analysis to find out students' and teachers' perceptions of Impact of Technology in classroom instruction and Pearson's product moment of correlation to find their interrelationships, and mean difference analysis to find out the difference in perceptions of male and female students, were used to draw findings.

RESULT AND INTERPRETATIONS

I. Results Teacher perceptions regarding Impact of Technology in classroom instruction

Among the given possible reasons, related to cognitive, affective and management of learning environment, teachers perceived lack of sufficient effort and previous knowledge as the prime reasons that make technology integration difficult. 10 perceived reasons regarding integration of Technology in classroom instruction in their order of mean scale value, are stated in Table I.

Table I
Perceived reasons by teachers regarding technology integrated classroom instruction

Teachers perceive that the less formal the learning environment, students tend to be more distracted from the classroom instruction. These external factors are found relevant equally as difficulty making factors related to cognitive variables. The professionalism in handling the technology, difficulty in handling the technological class with more number of students in class are making difficulty for the teacher. The lowest mean value of agreement is on the reason resistance to change. Teachers are very much like to cling to the conventional method of instruction than to change for the reason.

II. Result of teaching style and strategies teachers use for classroom instruction

The result of teaching style and strategies teachers use for classroom instruction is listed in Table II

Table II
Percentage of teaching styles/Strategies Used

The major percentage of teachers use the conventional style of lecture method of instruction, followed by formal exam and test styles during instruction. The online method teaching is least used by the teachers. As expected the technology integrated instruction is relatively less form instruction in our classroom.
Responses by students on the perception of Technology integrated classroom instruction. Among the given responses for the ICT to make teaching and learning more effective, students selected in good ways (62.1%), in less good ways means it advances too fast (22%), too much text (49%) makes it fun (51%), variety of teaching methods (65%), little variation in methods (43%), does not demonstrate how ICT works (73%), boring lessons (34%). There is a mixed responses from the side of students with regard to the impact of technology integrated classroom.

III. Relation between Students' perceptions of Technology integrated classroom with perception on their teacher and instruction

The correlation coefficient for each construct in the perceptions are given in Table III.

Table III
Correlation Coefficient per constructs

From the results obtained, the high explained correlation is seen in the innovativeness of the pedagogical tools. Behaviour interaction stands the second most correlated construct. Both teachers as well as students support the fact that technology influence the behavioural pattern of the individual and make them more comfortable with the learning situation and the content. Regarding the factors that most influence the adoption of ICTs by teachers, are effort taken and the controlling power. Social influence has got the minimum factor as per the study though it cannot be neglected as the value shows a good relationship.

IV. Mean difference analysis of the male and female students' perceptions on technology integrated classroom instruction

The result of the mean difference analysis is given in Table III

Table III
Result of the mean difference analysis

The mean value for the male and female sample is 1.44 and 1.54 and the standard deviation is 0.50 and 0.51 respectively. The critical ratio or the t-value is found to be 1.57 which is not significant at the 0.05 level. Therefore it meant that there is no significant difference between the perceptions on technology integrated classroom instruction between male and female students. In spite of any gender differences, students are in favour of technology friendly classroom.

CONCLUSION

Higher education institutions want to integrate technology though they face numerous challenges, such as resistance to change (McKnight et al., 2016). In this study also resistance to change is a major reason perceived by the teachers to integrate technology in classroom instruction. The study reveal that there is a need to develop a strong link between students' communication and schools to enable teachers to effectively put into practice what they learned. This research showed even though in essence the officials have decided to implement technology, there is still more that needs to be done to improve learning and practices. For that reason, decision makers need to craft resource policies that would ensure wider access to technology resources so that teachers and students feel encouraged to adopt it in their lessons. This research is about communication and interaction effect of technology use by the teachers and students in the school. However, it is equally important to understand the context in which the students were trained for their teaching. In closing, by providing the views of students described in this paper, today's teachers and policy makers can help students develop the communication skills and become the healthy persons of tomorrow.

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