



USAGE OF TECHNOLOGY IN THE CLASSROOM TEACHING

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INTRODUCTION

The educational field has had many profound changes over the past few decades. Traditional education methods have emphasized a teacher-centered approach. But nowadays student-centered teaching methods are used all over the world. The teaching to the growing generation requires adoption of modern technology. The learning process of the students depends on various factors. Teachers focus on developing an attitude of better learning among students to overcome obstacles and difficulties that arise during learning. Technology helps to upgrade the learning process and reduce the burden of teachers in teaching.

Education gives continuous learning experience to change knowledge, skills and attitudes of the students. As a result of that educated individuals often turned out to be productive people in the society (Selvarajah, 2016). Each student has the ability to learn in a different pattern. Based on the method of learning the students are classified into three categories as learning through ear, learning through eye and learning through activity (Kannathasan, 2015).

Teachers used traditional teaching methods and techniques in the classroom teaching at Sri Lanka. However, the teaching-learning process in the present context is changed to modern technology. This study is focused on the teachers at Jaffna Hindu College among the national schools in northern province of Sri Lanka because this college has the adequate physical and human resources needed for the teaching-learning process compared to other schools. This college provides secondary education for boys who have passed the grade five scholarship examinations. The students in this college prefer to learn how to think critically and solve problems related to technology through classroom digital technology. But teachers of this college are facing several problems in day-to-day classroom teaching activity. Some of them fail to disseminate their knowledge and experiences to their students. The problem is teachers have to prepare themselves for the changes from traditional to modern technology-based classroom teaching. In such contexts, this study was based on the following objectives.

1. To identify the difficulties faced by teachers in using modern technological teaching aids.
2. To identify the barriers to technology integration in the classroom
3. To determine the influences of various technological aids in classroom teaching.
4. To identify the sources of acquired technology skills, teacher training and seminar provided by the education sector to use modern technology in the classroom.

METHODOLOGY

The population for this descriptive study consisted of teachers of the Jaffna Hindu College in the Jaffna district of the northern province (N= 124, year of 2021)

Sampling method

Random sampling method was used to select the sample for this study from Jaffna Hindu College teachers. There were 92 teachers selected based on Krejcie and Morgan's (1970) table. Data collection for the study took place from January 2021 to April 2021.

Data collection techniques

The Google form is the main instrument used for this research work to collect primary data. Additional data were collected from student representatives and school principal via structured interview. The instrument was sent to teachers via social media networks. Ninety-two responses were received from the teachers. The first part of this study instrument was made up of six questions including gender, educational qualification, professional qualification, years of teaching experience, teaching subjects and classes. The second part of this study instrument comprised of 18 questions both binary (yes or no) and Likert scale type related to teachers'



adoption of technology, sources of acquired technology skills, teacher training and seminars, accessibility and use of technological equipment, and barriers to technology integration in the classroom. The reliability of the instrument was assessed by cronbach’s alpha coefficient, and it was 0.8.

Data Analysis

Descriptive survey method was used to collect data for this study. Data were analyzed using the statistical package for social science (SPSS). The first objective of the study was analyzed in percentages. The data collected from respondents through the instrument such as technical skills and knowledge of teacher, handling ability of technological aids, experience, and training and workshops were used to analyse the first objective of this study. Relationship between the appropriate training obtained by the teacher and ability of using technological equipment in the classroom was analyzed using pearson correlation. The second objective of the study was analyzed in percentage. Sufficient time to develop e-lesson, availability of equipments in classroom, availability of network facilities in classroom and school were used to analyse the second objective of this study. The third objective of the study was analyzed via pearson correlation between the students’ interest in classroom learning (dependent variable) and various technological aids in the classroom teaching (independent variables). The final objective was analyzed in percentage. In-service training and seminars and sources of prior knowledge in handling technical aids were analyzed.

RESULTS AND DISCUSSION

The table 1 provides the demographic information of teachers in Jaffna Hindu College. The data indicated that the 53.3% respondents were male and 46.7% were female. In which 29.3% of the respondents are diploma holders, 50% of the respondents are degree holders and 20.7% of respondents have post graduate degrees. It was further noticed that 16.3% of the respondents did not possess professional qualification and, 67.4% of the respondents have more than five years of experience in teaching.

Table 1: Demographic information of respondents

	Percentage (%)
Gender	
1. Male	53.3
2. Female	46.7
Educational Qualification	
1. Diploma holders	29.3
2. Degree holders	50.0
3. Post graduate degrees	20.7
Professional Qualification	
1. Diploma holders	18.5
2. Post graduate diploma holders	54.3
3. Post graduate degrees	10.9
4. None	16.3
Service	
1. < 5 years	32.6
2. 5 – 10 years	30.4
3. 10 – 15 years	19.6
4. > 15 years	17.4

The first objective of this study was to identify the difficulties faced by teachers in using modern technological teaching aids. Accordingly, it was found that 82.6% of respondents have ability in handling modern technical aids. 51.1% of the respondents got proper training and participated in seminars about using technology in classroom teaching. Most of the respondents (87.0%) have



some experience in technology-based teaching. The positive pearson correlation (0.751) shows the proper training to the teacher enhances the ability of using technological equipment in the classroom and it is significant at $\alpha = 0.01$ level. The ability to self-handle technical equipment increases the usage of technical equipment in the classroom. When they have insufficient training and inadequate skills, they feel difficulties in using technology equipment in the classroom.

Table 2: Teacher’s technology acquisition

	Percentage (%)
Technical skills and knowledge	
1. Yes	78.3
2. No	21.7
Handling ability of technological aids	
1. Very poor	14.1
2. Poor	3.3
3. Moderate	27.2
4. Good	43.5
5. Very good	12.0
Experience	
1. Yes	87.0
2. No	13.0
Training and workshop	
1. Yes	51.1
2. No	48.9

The second objective of this study was to identify the barriers to technology integration in the classroom. There are 41.3% of the respondents who have not enough time to develop e-lesson. Teachers feel e-lesson as burden when increase the number of periods in a day. Table 3 shows that most of the classes (93.5%) have availability of equipments in classroom. There are 20.6% of respondents who have said that availability of network facilities in classroom and schools were poor. It is easy to integrate technology in the classroom with availability of equipments and network facilities.

Table3: Barriers to technology integration in the classroom.

	Percentage (%)
Sufficiency of time to develop e-lesson	
1. Very low	16.3
2. Low	25.0
3. Moderate	30.4
4. High	27.2
5. Very high	1.1
Availability of equipments in classroom	
1. Very poor	6.5
2. Poor	0.0
3. Moderate	25.0
4. Good	30.4
5. Very good	38.2
Availability of network facilities in classroom and school	
1. Very poor	15.2
2. Poor	5.4
3. Moderate	43.5
4. Good	20.7
5. Very good	15.2



The third objective of the study was to determine the influences of various technological aids in the classroom teaching. The Pearson correlation between the availability of technology devices in the classroom teaching and students' interest in learning express positive correlation (1.000) and significant at $\alpha = 0.01$ level. The use of modern technological equipment as teaching and learning aids in the classroom stimulate the students' interests significantly.

The final objective of this was to identify the sources of acquired technology skills, teacher training and seminars provided by the education sector to use modern technology in the classroom. The table 2 shows that education sector did not provide any training or seminars to 48.9 % of the respondents. But most of them (82.6%) have prior knowledge in handling technical aids. Training and seminars motivate the teachers to use modern technology in classroom.

CONCLUSIONS/RECOMMENDATIONS

The findings of the study show that teachers do not have adequate access to internet facilities in that school except on their phones. Technology in teaching makes the subject simpler and more understandable and improves the understanding of students in the subjects. Proper training and seminars to the teachers and adequate technology facilities in the classroom motivate teachers to give better learning experience to their students. Recommendations made highlighted that the usage of technology in the classroom would enhance the student's interest in learning. The administration, department of zonal education and teachers' center should provide proper training on usage of modern technology in the classroom to the teachers and increase the classroom facilities as technologically advanced.

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