

PROGRAM EVALUATION ON TECHNOLOGY LITERACY IN ENGLISH CLASSROOM: NEEDS ANALYSIS

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ABSTRACT

Teachers in the 21st century must be capable of new literacy, such as digital literacy, technology literacy, and human literacy. There has been a lot of research done in this area, but this is one of the more recent studies that relates to technological literacy. This research will focus on the program evaluation of the use of technology literacy in English classrooms. The study aimed to determine whether technology literacy was used in the classrooms, to evaluate teachers' competence in the use of technology literacy, and to determine the students' needs in the use of computing applications in the English classroom. A needs analysis was used as the research methodology. To get the data, an observation sheet was obtained as the instrument. The questionnaires were adapted from *Blended Learning Innovation for IRCC Settlement Language Training by Fahy et. al. (2016)*. The findings confirmed some facts. First, despite the challenges of technology literacy applied in the classroom, teachers felt the positive impacts on teaching and learning in the classroom. Second, in the use of technology

applications, it has met some of the students' needs in learning English. Third, in terms of evaluation, the teacher did not meet enough qualifications as a qualified teacher to use technology in the classroom. As a result, it influenced the teaching-learning process, and they were unable to instruct successfully. The researcher proposed that the school hold a workshop or training for the teachers to improve their teaching skills using technology literacy. The researcher recommended further study on the integration of the technology literacy used in the English syllabus and the teaching materials.

Keynotes: technology literacy, program evaluation, needs analysis

INTRODUCTION

In the twenty-first century, all sectors of education must equip students to confront the difficulties that exist. Mastering 21st-century abilities is a requirement that must be fostered in children from a young age. One of the 21st century's talents is technological literacy. The ability to utilize, manage, assess, and comprehend technology is referred to as technological literacy (ITEA, 2000/2002). Santoso et al. (2019) also added that technological literacy is the ability of a person to work independently and collaborate with others effectively, responsibly, and precisely by using technological instruments to obtain, manage, then integrate, evaluate, create, and communicate information. Someone who is technologically literate is at ease with and objective about the use of technology; they are neither afraid of nor obsessed with it. (ITEA, 2000/2002).

Many studies have inserted technology literacy into a syllabus and teaching materials at schools. In addition, Santoso et al. (2019) noted that in the education 4.0 era, like today, the learning process is not only done conventionally but is starting to shift to a technology-based learning process. Being literate in technology is very important for teachers. It is the teacher who will direct students to use various types of applications in a classroom. Muir-Herzig (2004:113) states that teaching and learning through technology place students in active, critical-thinking scenarios in which they must solve issues, exchange ideas with others, and reflect on what they have learned. Technology-enhanced classes transition from being teacher-centered to being student-centered. Santoso et al. (2019) also add some factors that influence teaching competency and technology literacy. It is becoming increasingly intensified with the existence of a pandemic situation. Lund et al. (2014) (cited by Falloon, 2020) added comment on the distinct issues that teacher educators confront in building a holistic vision of digital competency in their students. They emphasize that teacher educators must not only educate their students on how to use current and developing digital resources in their own professional practice, but also on how to make their students "capable of using technology in productive ways" (p. 286).

Although schools have integrated technological literacy into their syllabus and materials, the evaluation of technology use in the classroom remains necessary. It is necessary to evaluate all teaching programs in order to analyze their effectiveness (Brown, 1995) and appropriateness to achieve the goals that are expected at the end of the process by providing feedback to all

shareholders of the program (Ebru, 2018). Evaluation is a procedure or method of knowing whether or not the teaching and learning processes have been carried out effectively and properly by the teachers (Gultom, 2016, p.190). Gultom also cited Weir and Roberts (1994) as saying that there are two major purposes of language program evaluation: 1. Accountability for the program; 2. Development of the program. Program accountability typically assesses the outcomes of a program at major end points of an educational cycle and is typically carried out for the benefit of an external audience. While program development is designed to increase a program's quality as it is being implemented (Gultom, 2016).

A needs analysis is required to determine the progression of the usage of technology in classrooms. Analysis from the teacher's and students' points of view Sihmirmo (2015, pg.42), an effort to know the needs of a group of learners to learn English is called a needs analysis or needs assessment (Morales et al., 2010: 47; McCawley, 2009: 3; Hyland in Cummins & Davison, 2007: 392; 2001: 51; Office of Migrant Education, 2001: 2; Titcomb, 2000: 1; Brown, 1995: 36; Iwai et.al., 1999, in Songhori, 2008: 2; Ellis & Johnson, 1994, in Hossain, 2013: 18). A needs analysis appears in English language learning and teaching to meet specific needs of English learning, focusing on certain specific needs generally known as "English for specific purposes" (ESP) and vocational programs (Richards, 2001: 51). So, the use of technology literacy in the classroom needs to be evaluated by means of a needs analysis. According to Sihmirmo (2015), Brown (1995: 37–38) identified four types of people who can participate in a needs analysis: (1) target groups, (2) audience, (3) needs analysts, and (4) resource groups.

Previous research has been studying the effects of program evaluation on English language learning in the classroom. Ebru (2018) suggested further study to improve the program. This study will continue on the program evaluation of using technology literacy in English classrooms. The researcher found three problems that need to be analyzed and developed in a program. The problems were:

1. Do teachers use technology literacy in the classroom?
2. Do the technology literacy fulfill the students' needs?
3. Do the teacher have enough qualifications in using the technology literacy?

The purpose of the study was to determine whether teachers use technology literacy in the classroom, whether technology literacy fulfills the students' needs in the classroom, and whether the teachers are qualified enough to use technology literacy.

The researcher also limited the scope of this study. The participants were English teachers and students from elementary to junior high schools students. They were located in different places.

This study was relevant for students, teachers, the school, and the researcher. For the students, it will help them use various applications and social media to improve their English and do their assignments. For the teachers, it will give them motivation to improve their technology literacy and, hopefully, with the school's cooperation, they will have training to become more familiar with the applications and social media that will be used in English learning teaching in the classrooms. For the school, it will be an evaluation to conduct a teacher training program to improve the quality of teachers in the teaching and learning process in the classroom through the use of various applications. For the researcher, this study should provide ideas for developing learning programs that incorporate computer applications into the curriculum or teaching materials.

METHODOLOGY

This is a qualitative approach research. This study was designed using the needs analysis. The analysis of students and teachers' point of view towards the use of technology literacy in the classroom.

The data collection procedures were defining the questionnaires, determining the respondents, preparing the questionnaire and surveying the questionnaire.

In defining the questionnaire, consider the purpose of the study and the literature review as the guide to making questions that lead to the result. The respondents are teachers and students from elementary to junior high schools, which are located in different areas. There were two questionnaires made during the preparation. First, the students' questionnaire was directed towards the computing devices used in learning English in the classroom. Second, the teachers' questionnaire towards technology literacy in teaching and learning English in the classroom. The questionnaires were adapted from *Blended Learning Innovation for IRCC Settlement Language Training by Fahy et al. (2016)*. It is a program held to evaluate blended learning in an institution. The researcher, however, only uses a few questions because of the limited time and it is short research. The questions were designed based on the needs analysis of the technology literacy used in the classroom. The students' questionnaire consists of three parts: the students' background information, such as name, grade, and school location; The second part is background information on using technology, and the third is the computing devices used in the classrooms. The questionnaire used was the objective response. The teachers' questionnaire consists of three parts. First, the teachers' background information, such as the class level of teaching, the number of students in the class, the school location, etc. Second, the use of technology literacy in classrooms. Third, the suggestion of program evaluation for teachers needs to be developed. The questionnaire used the Likert Scale and open-ended questions. After defining the questionnaire and determining the respondent, the next step is to build the questionnaire using Google forms and distribute it via social media via Whatsapp.

The data analysis techniques used the Excel chart data series software application, and then qualitative interpretation was performed. Data from the questionnaire was provided numerically as percentages, whereas data from the open-ended questions was presented qualitatively because it relied on respondents' comments.

RESULT AND DISCUSSION

This section discusses the results of the research questions and their discussion. In answering the questions, the researcher provided graphs and word clouds to investigate the problems. There will be two sections discussed in the result. The first section will be based on the teachers' perspectives, and the second section will be based on the students' perspectives.

Teachers' Eye View

Question number 1: Do the teacher have enough qualifications in using the technology literacy?

Based on Figure 1, the graph shows teachers' competency in operating the technology. Most of the teachers are at an average level. The other teachers are at advanced level, beginning with only 1 at expert.

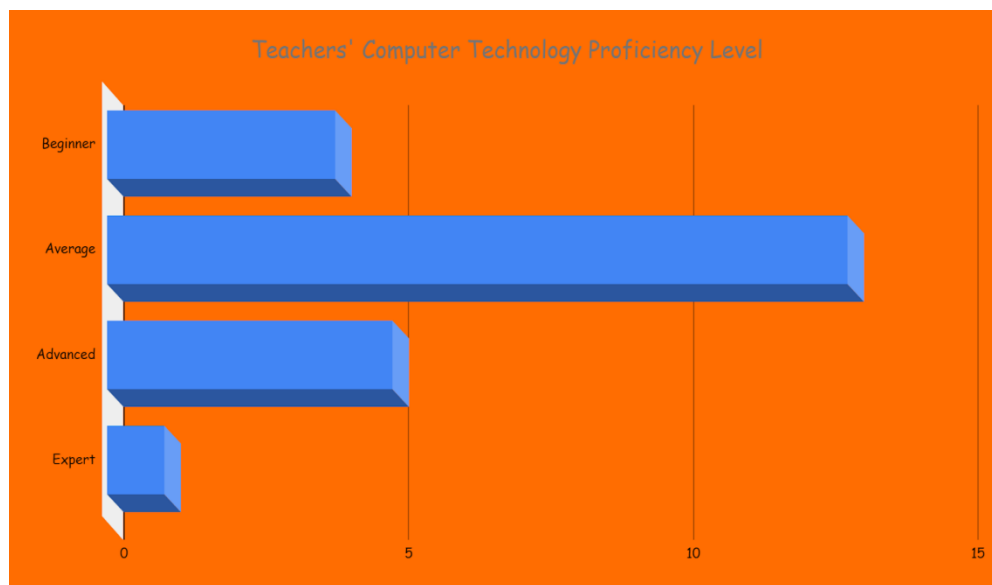


Figure 1. Teachers' proficiency Level in Using Computer Technology

Figure 2 shows the word cloud. Most devices and social media used during the lesson are typed in large words. such as computers, smartphones, WhatsApp, Google Form, Instagram, digital video, and many more.

In answering the third question, it will be based on the students' points of view, strengthened by the teachers' responses.

Students' Eye View

Based on the students' responses in Figure 4, we can see that the teacher uses online activities in the classroom. There were 95.2% of students who said yes, and 4.8% who said sometimes.

Figure 5 shows how students benefit from using a computer or other types of technology to learn English. For instance, it helps them improve their listening skills through the activities, motivates them to speak more often through the speaking activities, encourages them to read through the activities, and so on.

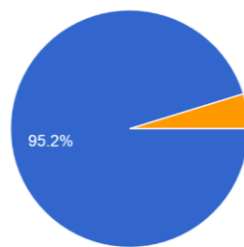


Figure 4. Student's respondent on using technology in the classroom

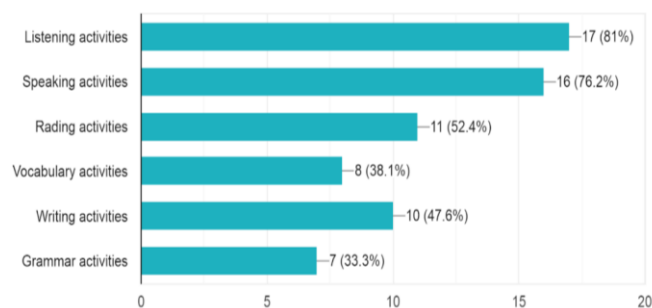


Figure 5. English Activities Using Technology Literacy in the Classroom

Based on the pie chart pie below (figure 6), it shows students' interest in using the computer device to learn English in the classroom. They all respond with their agreement on using the technology. The technology were mostly used in listening activities. In some English skills, using

authentic materials is a must to prevent wrong pronunciation. Such as listening to native’s recordings. Brown (2004, pg. 118) define listening as a student's oral or written response indicating correct (or incorrect) auditory processing.



Figure 6. Students Excitement Using Device for Learning

Among all the answers to the questions above, the researcher found some positive and negative impacts on the teachers using technological literacy in the classrooms. The positive impacts of using the device were that it promotes the development of students’ communication skills (e.g., writing, speaking, reading, and listening), motivates students to get more involved in learning activities, makes teachers feel more competent as educators, gives teachers the opportunity to be learning facilitators instead of providers, improves student learning of critical concepts and ideas, and makes classroom management easier. On the other hand, the negative impacts required extra time to plan learning activities due to the limitation of knowledge in technology literacy. Some requested a teachers’ training program to develop the teaching materials.

The tables below show the teachers' responses to the open-ended questions on the questionnaire. Table 1 displays some of the teachers' responses to an open-ended question about the school administration. Table 2 shows the responses of teachers on the best ways to use technology literacy in the classroom from various perspectives, such as frequency, benefits, and so on.

Teacher	Responses
A	Yes, especially for the newness of technology such as Virtual Reality and supporting the teacher to get re-skilled every year by providing the training of trainers.
B	Yes, for the Wi-Fi. But there's limitation in number of in-focus.
C	Yes, it is adequate for facilitating teachers in teaching.
D	Yes, to some extent, some rooms have been provided with the required devices.
E	Yes, since my school provided the teacher with new concept of technology that always updated for students.
F	No, it doesn't not. My school doesn't provide classroom with any computers

G	Yes, the school commonly facilitatr the computer, wifi
H	no, because the school has not enough budget to provide it
I	No, it doesn't. The computers are limited.
J	The school doesn't provide enough facilities to the students because the infrastructure or computer in the school is still slightly. In delivering the learning materials the teachers use their laptop by utilizing the infocus provided by the school
K	Totally yes, because in modern era we can find a lot of information from technology, and we need to improve our self as an educator and motivator to be perfectly.
L	Yes, it's enough. In the school provide enough computers and all students can use it
M	unfortunately not, because the basic need as the availability of the internet connection is still insufficient and cannot be accessed by all teachers. Yes, there is an internet connection, but it is difficult to connect to, and whenever it is accessible, it cannot be used
N	have not yet because of BOS funds are limited to upgrade sufficient/adequete teaching media,especially the use of computer technology
O	Not yet, but in certain room, not all classroom
P	no, because of the limited funds
Q	no, we use our own
R	Teachers have our own laptop and some of us have drawing tablet to support our teaching activities especially when we have to explain by writing on the digital whiteboard.

Table 1. Teacher's responses towards their school's administer

Teacher	Responses
A	Able to help teacher to deliver course to students. It will so helpful if it is employed in a high quality school with along with the complete infrastructure and supra structure. However, a suburb school will find difficulty to use it
B	It is better fulfill with the application based on the education environment needed
C	Used to support both teaching and learning, technology infuses classrooms with digital learning tools
D	In my opinion, computer programs which schools have to use must have core I7 processor. If computer programs have already sophisticated processor, teachers and students are able to access, operate, even remake/redesign the teaching and learning sources/materials/applications
E	Each students provided one computer or laptop so the students able to operate
F	I use ICT for general use and inquiry, communication, expression and construction
G	We can combine the use of computer technology in the classroom with the common methods
H	The use of computer technology in the classroom is not new things but it a must for teachers especially during this pandemic when all activities have to be done online or hybrid. The use of technology helps us to teach even when we can't teach directly in the classroom
I	Technology helps teachers do the jobs; however, the best way of learning a language is by using the language
J	As many as needed
K	Using PPT
L	At least, twice a week for the ideal because thw students need more practicing than the teory
M	The ideal of ct in the classroom as a media to make students interested in learning something, and want to learn more about the subject
N	Use just as necessary as a means of supporting the lesson, not replacing the class
O	Computer technology is such a necessary in learning process because bit helps both of teachers and students easier while doing the activity, computer technology used in classroom for while doing presentation and search for many sources
P	The use of technology is supposed to help students gain knowledge and technical skills to enhance their learning.

Q	reasons why students need technology in the classroom environment and how it can impact engagement.Helps connect students to the real world, Access information more easily,Adds a fun-factor to learning,Encourages collaboration
R	The use of the computer technology is depend on the need. Nowadays, teaching in this era require technology especially computer.. It will help us a lot
S	the use of computer technology might first be intended as a way to make the teaching and learning process easier and more effective. But unfortunately, because of some limitations, whether on the school's side, the students' side, or the teacher's side, it might comes out to be like an "additional burden" for everyone involve. So, some ways still need to be figured out on how to overcome those limitation like the availability of the internet connection, the tools, etc
T	Computer technology should be used based on students needs and always under teachers' supervision
U	I think every English learning skills should use various technology literacy to attract students interest in learning English
V	For listening skills, because it needs authentic materials

Table 2. Teacher responses regarding the optimal use of technological literacy in the classroom

CONCLUSION

This study is an evaluation program to meet teachers' problems in applying technology literacy in the English classroom. The survey was delivered to students and teachers at elementary and junior high schools in different locations. Based on the analysis, we can conclude that technology literacy has been applied in the classroom. However, teachers still find difficulty in choosing the computing devices that suit the materials for teaching the English language lesson skills. So, it has not yet fulfilled the student's needs in the classroom, especially preparing the student's skills to face the 21st century era. The researcher also concluded that the teachers are not qualified enough to use technology literacy in the classroom. The teachers requested a training program to increase their knowledge of technology literacy.

Based on the data analysis above, technological literacy is being used in the classroom both virtually and non-virtually. It also has a positive effect on the teachers and students. However, there were also concerns from teachers who felt overburdened by a variety of issues. On the open-ended questions delivered to the teachers, some stated that both teachers and students need the school's attention to improve the technology literacy in their classrooms. Such as providing WiFi, computers, and a routine program in technology literacy.

This research may give a contribution to schools, teachers, and students who are still developing technology literacy. This study also concludes several items that needed to be evaluated in the program. First, there will be a program on technology tools for teachers to learn.

Second, the needs of students to improve their English skills, and third, school administrative support for both teachers and students to use computers in the classroom or virtually.

Finally, comes the recommendation. It is recommended to have a frequent program evaluation for teachers and create an integration of the technology literacy used in the English syllabus and the teaching materials.

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