

CURRENT ISSUES & CHALLENGES IN THE USE OF SOFTWARE APPLICATIONS IN TEACHING ENGLISH IN MAJAYJAY DISTRICT: THE EXPERIENCES OF ENGLISH TEACHERS

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Abstract

The research study focused on the experiences of teachers in the current issues and challenges in the use of different software applications in teaching English. Specifically, it aimed to determine the status of ICT facilities that are available to teachers teaching English in Majayjay District, extent of English Teachers' Expertise on different ICT Software skills and programs, perceived issues, and challenges in the use of ICT in teaching and their significant relationships.

The research involved one-hundred seven (107) teachers teaching English subjects. Frequency Distribution was used to determine the extent of ICT facilities that are available to teachers. A researcher-made questionnaire was used as the main instrument to obtain the necessary data. Weighted Mean and Standard Deviation was used to determine the extent of English Teachers' Expertise on different ICT skills and Programs as well as the perceived issues and challenges in the use of ICT in teaching. In addition, Spearman Correlation was used to determine the significant relationship between ICT Facilities and issues and challenges in the use of software applications in teaching.

The results of the study revealed that most of the teachers have ICT facilities available for their teaching. In terms of Teachers' Expertise on different ICT Skills and Programs, most of the teachers have "Very High Expertise" on MS Word, MS Excel, MS Powerpoint, Google Forms, Search Engines, Social Networks (e.g., Zoom, Google Meet, etc.), Google Classroom, Email, File Attachment, and Windows & File Management with Average Weighted Mean of 4.48, 4.35, 4.57, 4.23, 4.61, 4.56, 3.98, 4.42, 4.52, and 4.51 respectively.

Also, teachers teaching English in Majayjay District perceive the issues and challenges in the use of ICT in teaching with "Very High Challenge" specifically in terms of External Variables, Perceived Usefulness, Perceived Ease-of-Use (PEOU), Attitude towards used and Social Influence Processes with Weighted Mean of 3.46, 4.32, 3.95, 3.43, 3.01, and 3.45.

The relationship between Teacher's Expertise on Software Application and the Issues and Challenges in the Use of Software Application in Teaching has a significant relationship with the Perceived Usefulness ($r=0.626$, $p=0.000$); Perceived Ease-of-Use (PEOU) ($r=0.442$, $p=0.000$); Attitude toward Use ($r=0.306$, $p=0.001$), and Social Influence Processes ($r=0.264$, $p=0.015$) and do not have a significant relationship with External Variables ($r=0.055$, $p=0.577$) and Behavioral Intention ($r=0.030$, $p=0.759$).

Keywords: Software Applications; Issues and Challenges; ICT Skills; Teachers Expertise

1. Main text

Introduction

Digitalization, understood as 'the way in which many domains of social life are restructured around

digital communication and media infrastructure' (Brennan & Kreis, 2014), is already a global trend that developed and already touched every walk of life of a person. From having different transactions, leisure time, the way of our communication, all of which influenced now by Digitalization.

From the use of different technologies and equipment in works (teaching, transactions, etc.), this really changed the way people do in their everyday living. Many people's habits, such as conversing, gathering information, and socializing, have switched to digital platforms. They have practically all digital devices, including laptops, smartphones, and tablets (Suherdi & Mian, 2017). Furthermore, Gialamas, Nikolopoulou, and Koutromanos (2013) stated that the internet's existence encourages people to learn, develop, process, and distribute the knowledge they have obtained. The growth of technology, in this example, digital devices and applications, may also have an impact on teaching and learning activities.

Teachers, encounter different experiences in the use of ICT especially in teaching. In the Philippines, some, but not all teachers can integrate fully ICT use in teaching. From the study of Dela Rosa (2016), it was discovered that, despite having less exposure to ICT, the beginning language teachers spend more instructional time capitalizing on ICT integration in their class than experienced language teachers, who appears to have greater exposure. This could indicate that language teachers, such as the novice language teacher in his study, take advantage of ICT resources such as downloadable grammar and literature activities, videos, and audio-clippings, and PowerPoint presentations, teaching in the field.

The use of ICT is considered as one of the most important part of organizations these days (Zhang & Aikman, 2007). In this fast-paced environment, there is high evidence of integration of ICT in teaching and learning on the educational reform agenda especially in most developing countries (Peeraer & Van Petegem, 2011). As Bransford, Brown, & Cocking, 2000; Grimus, 2000; Yelland, 2001 stated, computers, emerged in the early 1980's began to be used in schools. From this, some of the scholars even suggested that the role of ICT will be an important part of system of education for the next generation.

With this, it is hereby decided to investigate on the teachers' perception and experiences on the current different issues, barriers, and challenges in the use of different software application in teaching based on different learning modalities under the DepEd Order No. 18 s. 2020 or the "Policy Guidelines for the Provision of Learning Resources in the Implementation of the Basic Education Learning Continuity Plan.

Theoretical Framework

One of the most important technology acceptance models is the Technology Acceptance Model (TAM; Davis, 1989), which states that two key elements influence an individual's intention to utilize new technology: perceived ease of use and perceived usefulness. For example, an older adult who believes that digital games are too challenging to play or a waste of time will be less likely to adopt this technology, whereas an older adult who thinks that digital games provide needed mental stimulation and are simple to learn will be more likely to want to learn how to use them.

Later on, Venkatesh and Davis (2000) developed another version of the Technology Acceptance Model (TAM 2), investigating why some people use computers and their attitudes towards them that made the TAM 2. Figure 1 below links the perceived usefulness and ease of use with attitude towards using ICT and actual use (system use). They tested this model with 107 adult users using an organizational system for 14 weeks. The computer and its perceived usefulness were also strongly linked to these intentions.

The study is anchored in this theory, for the researcher will investigate how the different technologies in teaching influence teachers in using technology in the teaching-learning process. From the idea itself, various aspects affect an individual's utilization of technology in teaching, like perceived ease of use and perceived usefulness. In education, teachers opt to use this technology in teaching, but the underlying concern is whether they accept based on their ease of use or perceive that the technology they will utilize is helpful for them in the teaching-learning process.

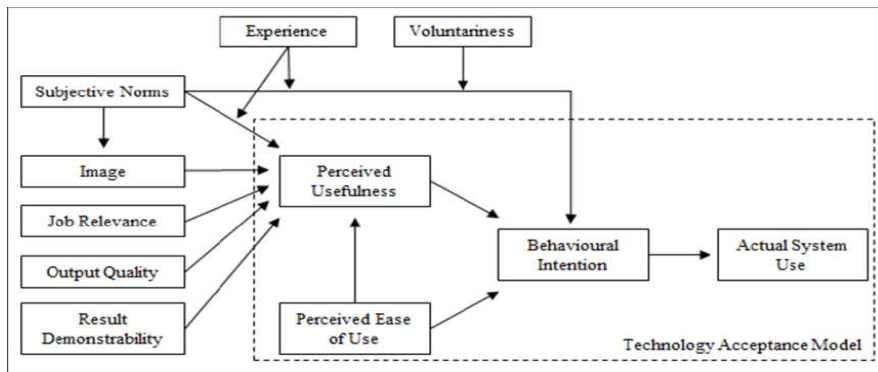


Figure 1. A theoretical extension of the technology acceptance model as TAM 2 of Venkatesh & Davis (2000).

The model of Venkatesh and Davis (2000) explains that when teachers are presented with new technology, there are factors that affect their decision around them about how and when they use it:

External Variables – It illustrates the difficulties teachers experience while integrating new technology into their teaching and learning processes beyond their control. Some of the problems are insufficient accessibility and network connectivity, schools with limited ICT facilities, a lack of appropriate training, a lack of time, and a lack of teacher competency. The different external variables contribute to the challenges that teachers in teaching encounter because there is a lack of facilities and resources for the use of technology in the public school's set-up. In addition, many schools in different regions still lack computers, laptops, and other tools teachers integrate with teaching lessons.

Perceived usefulness (PU) indicates how much people believe that employing a specific technology would improve their job performance. According to studies, teachers are less likely to use ICT resources if they believe there is no need to challenge or change their professional practice. According to empirical data from earlier studies (Cox, Preston, & Cox, 1999), they are more likely to have a favorable attitude about utilizing ICT in the classroom if they consider ICT valuable to them, their teaching, and their students learning. The following factors influence teachers' perceptions of the utility of ICT tools: Work more quickly, Improved job performance, Productivity, Effectiveness, and Useful. Usefulness is also one of the factors that teachers consider in using technology in teaching. The study will investigate the teachers' perceived usefulness in terms of Time spent, Job performance, Increased productivity, Effectiveness, and Useful of the different tools in technology in teaching.

Perceived ease - of - use (PEOU) reflects their perception of how easy it would be to use a given system. In research on experienced practicing ICT users, several characteristics pertaining to perceived ease of use of ICT have been identified. Other studies, such as the Impact project (Watson, 1993), identified a wide range of abilities and competencies that instructors believed required to find ICT easy to use. Some of these are: Easy to learn, Clear and understandable, Easy to use, Controllable, and Easy to remember. The study will investigate the perception of teachers in ease of use of the technological tools in teaching. It determined whether teachers perceive the different specialized tools in education are easy to use.

Attitude toward use – This pertains to the teacher's positive or negative feelings about performing the target behavior (e.g., using a system). Teachers' attitudes to many of these factors will depend upon how easy they perceive using ICT tools to be on a personal level as well as for teaching in the classroom. It is more of an internal feeling whether using a particular technological tool in teaching benefits them positively or negatively.

Behavioral intention - This aspect of the Technology Acceptance Model pertains to how the teacher has formulated prearranged plans to perform or not perform some specified future behavior. This also can be

defined as the intention of the user of technology, whether they have the decision/intention to use it in teaching or not, depending on its effect on their education in the future.

Social influence processes (subjective norm, voluntariness, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability, and perceived ease of use) as determinants of perceived usefulness and usage intentions. Comprehensively, this pertains to the social influences around the use of technology in integrating it into their profession. Some of these influences include the norm of the group where the user belongs, whether they also use it or not, relevance to their job description, positive usage results, and can be executed efficiently.

The updated version of the TAM 2 consists of some additional determinants; these include the social influence process and cognitive instrumental functions of perceived usefulness and usage intentions.

Statement of the Problem

The study aimed to examine the perceived issues and challenges in using ICT of English teachers in teaching.

Specifically, it answered the following problems:

1. What is the status of ICT facilities available for English Teachers in the Majayjay District?
2. What is the extent of English Teachers' expertise in ICT software skills and programs in terms of:
 - MS Word
 - MS Excel
 - MS PowerPoint
 - Google Forms
 - Search Engines
 - Social Networks (e.g., Zoom, Google Meet, etc.)
 - Google Classroom
 - Email
 - File Attachment
 - Windows and File Management
3. How do teachers perceive the issues and challenges in the use of ICT in teaching in terms of:
 - External Variables
 - Perceived Usefulness
 - Perceived Ease - Of - Use (PEOU)
 - Attitude Toward Use
 - Behavioral Intention
 - Social Influence Processes
4. Do the teachers' expertise in software applications significantly relate to the issues and challenges in using software applications in teaching?

Research Methodology

The research was administered using quantitative method of research by the use of a questionnaire carefully developed to collect data about the extent of available ICT facilities that English teachers have; perceived issues and challenges by educators in terms of External Variables, Perceived Usefulness, Perceived Ease - Of - Use (PEOU), Attitude Toward Use, Behavioral Intention, and Social Influence Processes as well as determining the significant relationship of ICT facilities and teachers' expertise on software applications to the issues and challenges in the use of software application in teaching.

The respondents of the study were from Majayjay District, the one hundred (107) teachers of the said district out of eight (8) elementary schools and four (4) secondary schools were the center of the study. This is based on the simple random sampling technique using Slovin's Formula.

The respondents in the study were determined using Simple Random Sampling technique. It is a fundamental sampling strategy in which we choose a set of participants (a sample) for research from a larger group (a population). Everyone in the sample is picked totally by chance, and everyone in the population has an equal chance of being included. It is feasible to select any sample of a certain size from all potential samples.

The researcher used Slovin's Formula to determine the estimated target respondents on the total population of Teachers in Majayjay District. Using Slovin's formula, the researcher can sample the population with a certain level of accuracy. It will tell the researcher how large a sample size is required to provide a fair level of accuracy in the results.

Data were collected through the questionnaire survey (Quantitative method). Survey was administrated at Majayjay District in Majayjay, Laguna using printed questionnaire or using the google form for convenience to gather the data even they are in Alternative Work Arrangement. The questionnaire survey was prepared and designed by the researcher himself based on the study research questions. English was the language to be used in preparing the surveys as it is the language that is easily communicated to educators. Some items for the questionnaire were selected from other studies connected to the present study of Salehi and Salehi (2012) and Ghavifekr et al. (2016).

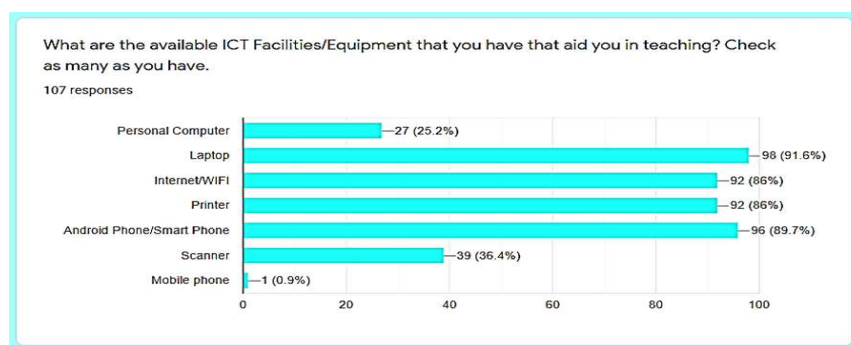
Necessary letter and permits to conduct the study were first secured. A letter of approval addressed to the office of Schools Division Superintendent (SDS), Public Schools District Supervisor (PSDS), eight (8) elementary School Heads, and four (4) for the secondary School Heads (SH) in Majayjay District, in Laguna for the permission of conducting the study. The conduct survey with the respondents was scheduled. Afterwards, analysis of the data results was done using quantitative method.

The data collected were tallied, tabulated, analyzed, and interpreted. A simple Frequency Distribution was used to determine the extent of ICT facilities available to the English Teachers. Meanwhile, weighted mean and standard deviation were used to determine the extent of English Teachers have expertise on Software Application skills and programs, as well as issues and challenges in the use of Software application in teaching. Spearman Correlation was used to determine if there is significant relationship of ICT facilities and teachers' expertise on software applications to the issues and challenges in the use of software application in teaching.

Results and Discussion

1. Status of ICT facilities available for English Teachers in the Majayjay District

Graph 1. Status of ICT facilities available for English Teachers in Majayjay District



Graph 1 illustrates the status of ICT facilities available for English Teachers in Majayjay District. About 107 English Teachers were asked to answer a “Check All Apply” Survey Data. Based on the gathered data, 25.2% has Personal Computers, 91.6% has Laptop, 86% has Internet / Wifi and Printer, 89.7% has Android phone/Smart Phone, 36.4% has scanner and 0.9% has a Mobile phone. Teachers nowadays really prioritize to buy or use laptops since the start of the pandemic, all the reports that they need to comply uses laptop as gadget.

Based on the data gathered, the ICT facilities that are highly available for teachers in Majayjay District are Laptops, Internet/wifi, printer and Android phone/ Smart phone. Meanwhile, the ICT facilities that are not highly available to teachers are Personal Computer (PC), Scanners, and Mobile Phone.

2. Extent of English Teachers' Expertise in ICT Software Skills and Programs

Table 1. Extent of English Teachers Expertise on ICT Skills and Programs in terms of MS Word and MS Excel

<i>The teachers can use MS Word to...</i>	Mean	SD	Verbal Interpretation
Produces a text using a word processing program	4.58	0.60	Very High Expertise
Create Word Files in accomplishing reports	4.65	0.55	Very High Expertise
Use different functions of Ribbon in Microsoft Word	4.21	0.77	Very High Expertise
Overall Mean = 4.48			
<i>The teachers can use MS Excel to...</i>	Mean	SD	Verbal Interpretation
Use a spreadsheet	4.50	0.66	Very High Expertise
Use a spreadsheet to plot a graph	4.21	0.79	Very High Expertise
Use tables and functions on Excel files	4.36	0.74	Very High Expertise
Overall Mean = 4.35			
Legend:			
Range	Verbal Interpretation		
4.20 – 5.00	Very High Expertise		
3.40 – 4.19	High Expertise		
2.60 – 3.39	Moderate Expertise		
1.80 – 2.59	Least Expertise		
1.00 – 1.79	No Expertise		

Table 1 illustrates the extent of English Teachers expertise on ICT skills and programs in terms of MS word. The teachers show Very High Expertise, in creating Word Files in accomplishing reports ($M=4.65$, $SD=0.55$), producing a text using a word processing program ($M= 4.58$, $SD= 0.60$) and using different functions of Ribbon in Microsoft Word ($M=4.21$, $SD=0.77$).

Most of the teachers in Majayjay District can use Microsoft Office Word with the different basic functions least on exploring all the functions in the ribbon since most of the documents needed are in plain presentation. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of MS Word attained a mean score of 4.48 and a standard deviation of 0.67 and was Very High Expertise.

Similarly, the teachers show Very High Expertise in using MS Excel particularly in using a spreadsheet ($M=4.50$, $SD=0.66$), tables and functions on Excel files ($M= 4.36$, $SD= 0.74$), and using a spread sheet to plot a graph ($M=4.21$, $SD=0.79$)

Teachers in Majayjay District usually use the MS Excel to compute grades. Other than this function is not widely explored by teachers since they only pay attention on the basic functions of it. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of MS Excel attained a mean score of 4.35 and a standard deviation of 0.74 and was Very High Expertise.

Table 2. Extent of English Teachers Expertise on ICT Skills and Programs in terms of MS PowerPoint and Google Forms

The Teachers can use MS PowerPoint to...	Mean	SD	Verbal Interpretation
Create a presentation with simple animation functions	4.64	0.57	Very High Expertise
Create a presentation with video or audio clips	4.55	0.66	Very High Expertise
Layout presentations with transitions	4.52	0.66	Very High Expertise
Overall Mean = 4.57			
The teachers can use Google Forms to...	Mean	SD	Verbal Interpretation
Edit text online containing internet links and images	4.37	0.73	Very High Expertise
Edit a questionnaire online	4.21	0.83	Very High Expertise
Construct Quizzes and other kinds of forms online	4.11	0.88	High Expertise
Overall Mean = 4.23			
Legend:			
Range	Verbal Interpretation		
4.20 – 5.00	Very High Expertise		
3.40 – 4.19	High Expertise		
2.60 – 3.39	Moderate Expertise		
1.80 – 2.59	Least Expertise		
1.00 – 1.79	No Expertise		

Table 2 illustrates the extent of English Teachers expertise on ICT skills and programs in terms of MS PowerPoint and Google Forms. Accordingly, teachers show Very High Expertise in using MS PowerPoint particularly in creating a presentation with simple animation functions ($M=4.64$, $SD=0.57$), create a presentation with video or audio clips ($M= 4.55$, $SD= 0.66$), and layout presentations with transitions ($M=4.52$, $SD=0.66$).

Teachers can manipulate and create a simple PowerPoint Presentations since most of the time, they are conducting trainings as well as being speakers into seminars using PowerPoint Presentation. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of MS PowerPoint attained a mean score of 4.57 and a standard deviation of 0.63 and was Very High Expertise.

Also, teachers show Very High Expertise in using Google Forms particularly on editing text online containing internet links and images ($M=4.37$, $SD=0.73$), editing a questionnaire online ($M= 4.21$, $SD= 0.83$), and High Expertise on constructing quizzes and other kinds of forms online ($M=4.11$, $SD=0.88$).

Teachers are trained in editing texts online containing internet links and images as well as editing questionnaire online as they are used to different seminars online/ virtual (Webinars) that uses google forms in registration and evaluation. Even though teachers can answer google forms whenever they are attending webinars, they find it difficult to construct quizzes and other forms for themselves. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of google forms attained a mean score of 4.23 and a standard deviation of 0.82 and was Very High Expertise.

Table 3. Extent of English Teachers Expertise on ICT Skills and Programs in terms of Search Engine and Social Networks (e.g., Zoom, Google Meet, etc.)

The Teachers can use Search Engines to...	Mean	SD	Verbal Interpretation
Download or upload curriculum resources from/to website or learning platforms for students to use	4.56	0.59	Very High Expertise
Search topics using a different web browser (Google, Mozilla Firefox, Internet Explorer)	4.60	0.58	Very High Expertise
Download files on the internet	4.66	0.53	Very High Expertise
Overall Mean = 4.61			

The Teachers can use Social Networks to...	Mean	SD	Verbal Interpretation
Participate in a discussion forum on the internet	4.57	0.62	Very High Expertise
Sign in using different social networks for Webinars	4.53	0.65	Very High Expertise
Use different functions on online meetings (share screen, camera off/on, microphone off/on)	4.58	0.60	Very High Expertise
Overall Mean = 4.56			

Legend:	Verbal Interpretation
Range	
4.20 – 5.00	Very High Expertise
3.40 – 4.19	High Expertise
2.60 – 3.39	Moderate Expertise
1.80 – 2.59	Least Expertise
1.00 – 1.79	No Expertise

Table 3 illustrates the extent of English Teachers expertise on ICT skills and programs in terms of Search Engine and Social Networks. Teachers in Majayjay District show Very High Expertise in using search engines as they can download files on the internet ($M=4.66$, $SD=0.53$), search topics using a different web browser (Google, Mozilla Firefox, Internet Explorer) ($M= 4.60$, $SD= 0.58$), and download or upload curriculum resources from/to website or learning platforms for students to use ($M=4.56$, $SD=0.59$).

All teachers can download different materials and documents as everyone are used in searching and by just clicking documents, they can download the files they needed. Even though teachers can easily download resources, if it is in social media platforms like messenger and google search, it is hard for them to download and upload files in a certain website. This can be due to the different requirements that websites require them before download or uploading a certain document. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of searching/browsing internet attained a mean score of 4.61 and a standard deviation of 0.57 and was Very High Expertise.

On the other hand, English teachers show Very High Expertise in using Social Networks particularly using different functions on online meetings (share screen, camera off/on, microphone off/on) ($M=4.58$, $SD=0.60$), participate in a discussion forum on the internet ($M= 4.57$, $SD= 0.62$), and sign in using different social networks for webinars ($M=4.53$, $SD=0.65$).

In attending different meetings and webinar trainings, teachers are required to share screen, as well as turning their cameras and microphones on and off. Because of this, teachers are already used to this kind of set up. Meanwhile, some teachers especially those who are not used to technology find it difficult to sign in using their accounts like DepED Emails, as well as signing in into different Learning Management System that usually requires them to use a username and passwords. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of social networks (e.g zoom, google meet, etc) attained a mean score of 4.56 and a standard deviation of 0.62 and was Very High Expertise.

Table 4. Extent of English Teachers Expertise on ICT Skills and Programs in terms of Google Classroom and Email.

<i>The Teachers can use Google Classroom to...</i>	Mean	SD	Verbal Interpretation
Create Google Classroom	4.06	0.93	High Expertise
Upload files (quizzes, activities) and monitor responses of learners on Google Classroom	3.96	0.99	High Expertise
Make Announcement in Google Classroom	3.92	1.01	High Expertise
Overall Mean = 3.98			
The Teachers can use Email to...	Mean	SD	Verbal Interpretation
Use emails to communicate with another person.	4.47	0.65	Very High Expertise
Email a file to someone, another student, or teacher	4.38	0.68	Very High Expertise

Forward, reply to emails online	4.41	0.69	Very High Expertise
Overall Mean = 4.42			

Legend:	Verbal Interpretation
Range	
4.20 – 5.00	Very High Expertise
3.40 – 4.19	High Expertise
2.60 – 3.39	Moderate Expertise
1.80 – 2.59	Least Expertise
1.00 – 1.79	No Expertise

Table 4 illustrates the extent of English Teachers expertise on ICT skills and programs in terms of google classroom and Email. Based on the results, teachers show High Expertise in using Google Classroom particularly creating Google Classroom (M=4.06, SD=0.93), uploading files (quizzes, activities) and monitor responses of learners on Google Classroom (M= 3.96, SD= 0.99), and making announcement in Google Classroom (M=3.92, SD=1.01).

Many teachers in Majayjay District conducts an online class that requires them to use Google Classrooms as virtual platform. They are trained before being assigned on online class. On the other hand, although online teachers can use google classrooms, they tend to find it difficult to make announcement to google classrooms because of the functions they need to click to make an announcement like setting the time for submission, etc. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of google classroom attained a mean score of 3.98 and a standard deviation of 0.97 and was High Expertise.

Furthermore, teachers also show Very High Expertise in using Email particularly on using emails to communicate with another person (M=4.47, SD=0.65), forward, reply to emails online (M=4.41, SD= 0.69), and email a file to someone, another student, or teacher (M=4.38, SD=0.68).

Most of the announcements and documents requested to Division Office or even the certificates in attending seminars, all of these occurs in using emails. Teachers sometimes find it difficult to send an email since there are many icons in the email that makes them difficult to choose from. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of email attained a mean score of 4.42 and a standard deviation of 0.67 and was Very High Expertise.

Table 5. Extent of English Teachers Expertise on ICT Skills and Programs in terms of File Attachment and Windows & File Management

The Teachers can use File Attachment to...	Mean	SD	Verbal Interpretation
Upload files to online platforms	4.53	0.59	Very High Expertise
Attach Files to the different software applications (Gmail, Yahoo, Messenger)	4.60	0.51	Very High Expertise
Converting files to different formats (PDF to Word, Word to PDF, etc.)	4.50	0.62	Very High Expertise
Overall Mean = 4.52			
The Teachers can use Windows & File Management to...	Mean	SD	Verbal Interpretation
Organize computer files in folders and subfolders	4.51	0.60	Very High Expertise
Make and rename folders on the computer	4.58	0.60	Very High Expertise
Download and install the software on the computer	4.45	0.68	Very High Expertise
Overall Mean = 4.51			

Legend:	Verbal Interpretation
Range	
4.20 – 5.00	Very High Expertise
3.40 – 4.19	High Expertise
2.60 – 3.39	Moderate Expertise
1.80 – 2.59	Least Expertise

Table 5 illustrates the extent of English Teachers expertise on ICT skills and programs in terms of file attachment and Windows & File Management. Teachers show Very High Expertise in using file attachment specially on attaching files to the different software applications (Gmail, Yahoo, Messenger) ($M=4.60$, $SD=0.51$), uploading files to online platforms ($M=4.53$, $SD=0.59$), and converting files to different formats (PDF to Word, Word to PDF, etc.) ($M=4.50$, $SD=0.62$).

Teachers usually find it easy to upload files to online platforms if they are trained to drag the documents directly on the platform itself. On the other hand, they have trouble in converting different files to different formats like PDF to Word, Word to PDF etc. because there is a limited file size in conversion on some of the free platforms. You can only convert files regardless of its size if you are paying subscription to some websites. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of file attachment attained a mean score of 4.52 and a standard deviation of 0.60 and was Very High Expertise.

Similarly, teachers in Majayjay District show Very High Expertise in using Windows & File Management particularly on making and renaming folders in the computer ($M=4.58$, $SD=0.60$), organizing computer files in folders and subfolders ($M=4.51$, $SD=0.60$), and downloading and installing software in computer ($M=4.45$, $SD=0.68$).

Teachers are used to this skill of making and renaming file folders specially when they are doing different reports that needs proper groupings for each category for easy access whenever a file is needed. On the other hand, they are not much trained in installing some software applications in computer or laptops. Usually, they tend to buy gadgets that already have installed software applications in teach such as google chrome, Microsoft Office, etc. Although there are already some pre-installed software application programs in some devices, there are some that expires and needs reinstalment and to avoid any unnecessary data loss, they prefer to pay other person to install it for them. Overall, the extent of English Teachers expertise on ICT skills and programs in terms of windows & file management attained a mean score of 4.51 and a standard deviation of 0.63 and was Very High Expertise.

3. Teachers Perceived Issues and Challenges in the Use of ICT in Teaching

Table 6. Teachers Perception on the Issues and Challenges in the use of ICT in Teaching in terms of External Variables

Issues and challenges	Mean	SD	Verbal Interpretation
Internet Connection.	3.36	1.19	Moderate Challenge
Limited ICT Facilities/Equipment.	3.61	0.91	High Challenge
Lack of training in using Software Application tools.	3.31	1.07	Moderate Challenge
Lack of Competencies	3.77	0.75	High Challenge
Attended Trainings	3.95	0.65	High Challenge
Allotted Time	3.93	0.80	High Challenge
Time-Consuming	3.34	0.96	Moderate Challenge
Supply of Electric Power	3.01	1.19	Moderate Challenge
Internet Facilities	3.36	1.13	Moderate Challenge
Time Constraint	2.94	1.13	Moderate Challenge
Overall Mean = 3.46			
Legend:			
Range		Verbal Interpretation	
4.20 – 5.00		Very High Challenge	

3.40 – 4.19	High Challenge
2.60 – 3.39	Moderate Challenge
1.80 – 2.59	Least Challenge
1.00 – 1.79	No Challenge at all

Table 6 illustrates the teachers' perception on the issues and challenges in the use of ICT in teaching in terms of external variables. Teachers were Highly Challenged by limited ICT facilities / Equipment in school ($M=3.61$, $SD=0.91$), being less confident on their competencies ($M=3.77$, $SD=0.75$), attendance to trainings ($M=3.95$, $SD=0.65$), and time allotment ($M=3.93$, $SD=0.80$), respectively.

Teachers in Majayjay District experiences lack of available ICT facilities in school. Although teachers have their own gadgets, some teachers lend it to their family to be used at home for them to be able to attend online classes. Aside from that, most schools do not have enough ICT tools for teachers to use in school.

On the other hand, they are moderately challenged by internet connection ($M=3.36$, $SD=1.19$), lack of training ($M=3.31$, $SD=1.07$), time-consuming ($M=3.34$, $SD=0.96$), lack of supply of electric power ($M=3.01$, $SD=1.19$), having enough internet facilities ($M=3.36$, $SD=1.13$), and Time Constraint ($M=2.94$, $SD=1.13$).

Table 7. Teachers Perception on the Issues and Challenges in the use of ICT in Teaching in terms of Perceived Usefulness

Issues and challenges	Mean	SD	Verbal Interpretation
Enhance Teaching Effectiveness	4.34	0.67	Very High Challenge
Improve my Teaching Performance.	4.35	0.65	Very High Challenge
Improve Teaching Productivity	4.35	0.66	Very High Challenge
Usefulness	4.33	0.63	Very High Challenge
Work Improvement	4.34	0.66	Very High Challenge
Work Effectivity	4.33	0.67	Very High Challenge
Work Productivity	4.32	0.69	Very High Challenge
Time Efficient	4.23	0.77	Very High Challenge
Enhance Student Performance	4.29	0.66	Very High Challenge
Resource Support	4.31	0.64	Very High Challenge
Overall Mean = 4.32			
Legend:			
Range	Verbal Interpretation		
4.20 – 5.00	Very High Challenge		
3.40 – 4.19	High Challenge		
2.60 – 3.39	Moderate Challenge		
1.80 – 2.59	Least Challenge		
1.00 – 1.79	No Challenge at all		

Table 7 illustrates the teachers perceived the issues and challenges in the use of ICT in teaching in terms of perceived usefulness. English Teachers view some of perceived usefulness as Very High Challenge in terms of Improvement on Teaching Performance ($M=4.35$, $SD=0.65$), improving teaching productivity ($M=4.35$, $SD=0.66$), and work improvement ($M=4.34$, $SD=0.66$).

If teachers see that a certain software application will improve their performance or will make them productive in their teaching, teachers tend to use it. As teachers face many administrative works, they are already looking for different avenues that will ease them or make them do different tasks in short time. Teachers also believe that being able to use different software applications in teaching will help them to cut time in working, minimizing the long hours of work on a certain matter. Overall, the teachers perceived the

issues and challenges in the use of ICT in teaching in terms of perceived usefulness attained a mean score of 4.32 and a standard deviation of 0.67 and was Very High Challenge.

Table 8. Teachers Perception on the Issues and Challenges in the use of ICT in Teaching in terms of Perceived Ease of Use

Issues and challenges	Mean	SD	Verbal Interpretation
Easy to Use	4.06	0.71	High Challenge
Mastery of Software Application	3.94	0.72	High Challenge
Clear and Understandable Interaction with Distance Learning	3.96	0.74	High Challenge
Easy Access to Information	4.05	0.69	High Challenge
Ease of Work	3.95	0.79	High Challenge
Easy Manipulation of Software Application	3.98	0.74	High Challenge
Easy Navigation	3.93	0.74	High Challenge
Use freely and efficiently	3.94	0.68	High Challenge
Easy to follow instructions	3.97	0.72	High Challenge
No Physical Strain in Use	3.71	0.80	High Challenge
Overall Mean = 3.95			

Legend:

Range	Verbal Interpretation
4.20 – 5.00	Very High Challenge
3.40 – 4.19	High Challenge
2.60 – 3.39	Moderate Challenge
1.80 – 2.59	Least Challenge
1.00 – 1.79	No Challenge at all

Table 8 illustrates the teachers perceived the issues and challenges in the use of ICT in teaching in terms of perceived ease of use. Perceived Ease of Use are perceived by English Teachers as High Challenge, as they are highly challenged by ease of use ($M=4.06$, $SD=0.71$), easy access to information ($M=4.05$, $SD=0.69$), easy manipulation of Software Applications ($M=3.98$, $SD=0.74$), and easy to follow instruction ($M=3.97$, $SD=0.72$).

Teachers find it very challenging if they do not find some software application easy to use. If they find a certain software application tool difficult to use, they tend to discontinue using that application. English teachers also like a software application tool that is easy to follow the instruction to easily access the information they need.

Similarly, they are also highly challenged on the usage and efficiency ($M=3.94$, $SD=0.68$), mastery of the software application ($M=3.94$, $SD=0.72$) and causes no physical strain in using the different software application ($M=3.71$, $SD=0.80$). Teachers in Majayjay District have the tendency to like a software application program that do not causes physical strain to the body. Also, many teachers in Majayjay District are already seasoned teachers with only few years before their retirement so they prefer to work using software application only if it is not hard to use.

Overall, the teachers perceived the issues and challenges in the use of ICT in teaching in terms of perceived ease of use attained a mean score of 3.95 and a standard deviation of 0.74 and was High Challenge.

Table 9. Teachers Perception on the Issues and Challenges in the use of ICT in Teaching in terms of Attitude Toward Use

Issues and challenges	Mean	SD	Verbal Interpretation
Rejection of Usage	2.42	1.09	Least Challenge
Favorable Attitude towards distance learning.	3.83	0.76	High Challenge

Good idea for Teaching Process.	4.10	0.76	High Challenge
Importance to Use	2.36	1.25	Least Challenge
Motivation as Work	4.17	0.71	High Challenge
Enjoyment in usage.	4.02	0.75	High Challenge
Work Requirement	4.03	0.78	High Challenge
Afraid to Fail	3.16	1.07	Moderate Challenge
Worthiness of use	2.30	1.22	Least Challenge
Favorable Use	3.91	0.89	High Challenge

Overall Mean = 3.43

Legend:

Range	Verbal Interpretation
4.20 – 5.00	Very High Challenge
3.40 – 4.19	High Challenge
2.60 – 3.39	Moderate Challenge
1.80 – 2.59	Least Challenge
1.00 – 1.79	No Challenge at all

Table 9 illustrates the teachers perceived the issues and challenges in the use of ICT in teaching in terms of attitude toward use. Teachers in Majayjay District were Highly Challenged by their motivation to work ($M=4.17$, $SD=0.71$), good idea that would help in the teaching process ($M=4.10$, $SD=0.76$), and as part of the work requirement ($M=4.03$, $SD=0.78$)

If the teachers see that the software application is interesting, then they tend to use it more but if not, it becomes a challenge for them specially if it becomes a compulsory for them. Aside from teaching, most of the teachers uses the different software as for their work requirement (doing reports, accomplishment reports, grades, etc.) that causes for the seasoned teachers to depend on those who are capable in using these software applications.

On the other hand, they are least challenged by their rejection on the use of software application ($M=2.42$, $SD=1.09$), less important for them to use ($M=2.36$, $SD=1.25$), and if it is worthy to use ($M=2.30$, $SD=1.22$). Teachers view using software applications worth it as long as it contributes to their professional development and helps in the teaching-learning process. Overall, the teachers perceived the issues and challenges in the use of ICT in teaching in terms of attitude toward use attained a mean score of 3.43 and a standard deviation of 1.20 and was High Challenge.

Table 10. Teachers Perception on the Issues and Challenges in the use of ICT in Teaching in terms of Behavioral Intention

Issues and challenges	Mean	SD	Verbal Interpretation
Inclusion in Professional Growth	2.36	1.12	Least Challenge
Peer Pressure	2.33	1.11	Least Challenge
Confidence	3.60	1.10	High Challenge
Use based on Priority	2.86	1.08	Moderate Challenge
Provision of Tools/Equipment	3.65	1.03	High Challenge
Use with Guidance	4.07	0.70	High Challenge
Benefits	2.55	1.21	Least Challenge
Personal Challenge	2.89	1.10	Moderate Challenge
Self-Usefulness	2.34	1.10	Least Challenge
Sufficient facilities	3.46	1.02	High Challenge

Overall Mean = 3.01

Legend:

Range	Verbal Interpretation
4.20 – 5.00	Very High Challenge

3.40 – 4.19	High Challenge
2.60 – 3.39	Moderate Challenge
1.80 – 2.59	Least Challenge
1.00 – 1.79	No Challenge at all

Table 10 illustrates the teachers perceived the issues and challenges in the use of ICT in teaching in terms of behavioral intention. Teachers of Majayjay District were Moderately Challenged by use of software application with guidance ($M=4.07$, $SD=0.70$), provision of tools and equipment, and their confidence in using it ($M=3.60$, $SD=1.10$).

Most of the teachers will have a positive behavior towards using software application in teaching if there is someone who will assist or guide them on using it. In addition, they will be able to deliver their teaching effectively if they are given enough tools and gadgets to use in their teaching. Teachers still use software application in teaching since that is now a requirement for all teachers since there are administrative works aside from teaching that needs the use of it. Overall, the teachers perceived the issues and challenges in the use of ICT in teaching in terms of behavioral intention attained a mean score of 3.01 and a standard deviation of 1.22 and was Moderate Challenge.

Table 11. Teachers Perception on the Issues and Challenges in the use of ICT in Teaching in terms of Social Influence Processes

Issues and challenges	Mean	SD	Verbal Interpretation
Culture	3.96	0.78	High Challenge
Voluntariness	4.04	0.74	High Challenge
Relevance to the Job	4.27	0.69	Very High Challenge
Influence of Co-worker	4.15	0.71	High Challenge
School Priority	2.82	1.26	Moderate Challenge
Teachers' refusal	2.66	1.17	Moderate Challenge
Parents Refusal	2.82	1.07	Moderate Challenge
Teacher Influence	2.60	1.11	Moderate Challenge
Directive from Higher Authority	4.34	0.69	Very High Challenge
Past experiences	2.80	1.15	Moderate Challenge
Overall Mean = 3.45			

Legend:

Range	Verbal Interpretation
4.20 – 5.00	Very High Challenge
3.40 – 4.19	High Challenge
2.60 – 3.39	Moderate Challenge
1.80 – 2.59	Least Challenge
1.00 – 1.79	No Challenge at all

Table 11 illustrates the teachers perceived the issues and challenges in the use of ICT in teaching in terms of social influence processes. Teachers were Highly Challenged by the directive by their own superior to use software applications in teaching, its relevance to the job of the teacher ($M=4.27$, $SD=0.69$), and Influence coming from their co-workers ($M=4.15$, $SD=0.71$).

With the different directives from the higher authority, teachers are used to using software application in teaching since from the principal up to the central office, there are different policies governing the use of some software applications in teaching.

On the other hand, teachers were moderately challenged by Teacher's refusal ($M=2.66$, $SD=1.17$) and Teacher influence through groups ($M=2.60$, $SD=1.11$). Many teachers are always influenced by their co-workers. There are teachers that will use software application in teaching if they also see other teachers doing

so. Overall, the teachers perceived the issues and challenges in the use of ICT in teaching in terms of social influence processes attained a mean score of 3.45 and a standard deviation of 1.20 and was High Challenge.

4. Significant Relationship of Teachers' Expertise in Software Applications to the Issues and Challenges in Using Software Applications in Teaching.

Table 12. Relationship between Teachers' Expertise on Software Application and the Issues and Challenges in the Use of Software Application in Teaching.

Independent Variable	Dependent Variable	Computed r-value	Strength	p-value	Analysis
English Teachers Expertise on ICT Skills and Software Application Programs	External Variables	0.055	Very Weak	0.577	Not Significant
	Perceived Usefulness	0.626	Strong	0.000	Significant
	Perceived Ease-of-Use (PEOU)	0.442	Moderate	0.000	Significant
	Attitude Toward Use	0.306	Weak	0.001	Significant
	Behavioral Intention	0.030	Very Weak	0.759	Not Significant
	Social Influence Processes	0.264	Weak	0.015	Significant

Legend:

Range	Verbal Interpretation
0.80-1.00	Very Strong
0.60-0.79	Strong
0.40-0.59	Moderate
0.20-0.39	Weak
0.00-0.19	Very Weak

The English teachers' expertise on ICT skills and software application programs has a significant relationship with the perceived usefulness ($r=0.626$, $p=0.000$), perceived ease-of-use (PEOU) ($r=0.442$, $p=0.000$), attitude toward use ($r=0.306$, $p=0.001$) and social influence processes ($r=0.264$, $p=0.015$). This implies that teachers' expertise on ICT skills and software application programs depends on how they perceive the use of different ICT Facilities as useful, easy to use, attitude and the different social influences around them.

On the other hand, English Teachers expertise on ICT skills and software application programs was observed to not have a significant relationship with External Variables ($r=0.055$, $p=0.577$) and Behavioral Intention ($r=0.030$, $p=0.759$). Teachers in this result, shows that their ICT skills and software application programs do not have a connection on their issues and challenge when it comes to the different external variables and behavioral intention. Even though some teachers do not have many gadgets to use in the teaching-learning process, they can still develop such software applications skills by borrowing those gadgets

to use in trainings. Some teachers in some seminars or webinar program shares gadget just to have the training specially if it is connected to the software application programs in teaching.

Summary of Findings

Different salient points were found after the conduct of the research. Therefore, based on the different findings of the study, the following findings are hereby enumerated based on the statement of the problem:

1. Most of the teachers have ICT facilities available for their teaching as 25.2% has Personal Computers, 91.6% has Laptop, 86% has Internet /Wifi and Printer, and 89.7% has Android phone/Smart Phone, 36.4% has a scanner, and 0.9% has a Mobile phone. This only shows that most teachers have enough gadgets to use in teaching English.
2. In terms of Teachers' Expertise on different ICT Skills and Programs, most of the teachers have "VERY HIGH EXPERTISE," specifically in using MS Word, MS Excel, MS PowerPoint, Google Forms, Searching/Browsing on the Internet, Social Networks (e.g., Zoom, Google Meet, etc.), Google Classroom, Email, File Attachment, and Windows & File Management. This only implies that most teachers in Majayjay District can manipulate/ have enough expertise in using different software applications used in teaching English.
3. Teachers teaching English in Majayjay District perceive the issues and challenges in the use of ICT in teaching with "VERY HIGH CHALLENGE," specifically in terms of External Variables, Perceived Usefulness, Perceived Ease-of-Use (PEOU), Attitude Towards Use, and Social Influence Processes.
4. The relationship between a Teachers' Expertise on Software Application and the Issues and Challenges in the Use of Software Application in Teaching has a Significant Relationship with the Perceived Usefulness; Perceived Ease-of-Use (PEOU); Attitude toward Use, and Social Influence Processes and do Not Have a Significant Relationship with External Variables and Behavioral Intention.

Conclusion

Based on the different findings of the study, the following conclusions are hereby concluded based on the statement of the problem:

Teachers' expertise on the use of ICT software applications is partly significantly related to the issues and challenges in the use of software applications in teaching except to external variables and behavioral intention. Therefore, the null hypothesis "Teachers' expertise on software applications is not significantly related to the issues and challenges in the use of software applications in teaching" is partly rejected.

Recommendations

From the said conclusions, the following recommendations were presented:

1. The school/ the division may provide additional support for teachers in having enough ICT facilities available for teachers by strengthening their ICT package programs granting teachers necessary facilities in teaching using ICT.
2. The Department of Education, specifically the Division or School may continue, formulate, or strengthen ICT skills and programs training for teachers. This could be in the form of School

Learning Action Cells (SLACs), In-Service Training (INSET) or even a Webinar or Physical attendance to Seminars.

3. Software Application Developers may provide trainings for teachers on other software applications emerging that can be used for teaching as additional avenue to enhance their professional development.
4. Future Researchers may venture more on the Expertise on ICT and Software Application Skills as well as Issues and Challenges on a wider area of study for more accurate results.

References

- Abao, E., Dayagbil, F. & Boholano, H. (2015). Engagement to Social Networking: Challenges and Opportunities to Educators. *European Scientific Journal*. Vol.11, No.16, 173-191.
- Adu, F. (2014). Assessment of Records Management Practices Among The Administrative Staff of University Of Education, Winneba – Kumasi (Uew-K) And Mampong (Uew-M) Campuses. Kwame Nkrumah University of Science and Technology.
- Alharbi, A. S., Alhebshi, A. A., & Meccawy, Z. (2021). EFL Students' and Teachers' Perceptions of Google Forms as a Digital Formative Assessment Tool in Saudi Secondary Schools Arab World English Journal (AWEJ) Special Issue on CALL (7)140-154.
- Brennan, S., & Kreiss, D. (2014). Digitalization and Digitization. *Culture Digitally*, September 8, retrieved on the 9th of March 2021 from: <http://culturedigitally.org/2014/09/digitalization-and-digitization>.
- Cachia, R., & Ferrari, A. (2010). Creativity in schools: A survey of teachers in Europe. Luxembourg: Publications Office of the European Union.
- Carey, J., & Dimmitt, C. (2004). The web and school counseling. *Interdisciplinary Journal of Practice, Theory, and Applied Research*, 21(3-4), 69-79. doi:10.1300/J025v21n03_08
- Chapelle, C. (2011). *Computer applications in second language acquisition: Foundations for teaching, testing and research*. Cambridge: Cambridge University Press.
- Correos, C. 2014, 'Teachers' ICT literacy and utilization in English Language Teaching, ICT & Innovations in Education', *International Electronic Journal*, vol. 2, no. 1, pp. 1-25.
- Dawes, L. (2001). What stops teachers using new technology? In M. Leask (Ed.), *Issues in Teaching using ICT* (pp. 61-79). London: Routledge.
- Delloso, R. M. (2014). Design and Evaluation of the Electronic Class Record for the Makiling National High School. *IOSR Journal of Engineering*, 20-28.
- Downes, S. (2013). The role of open educational resources in personal learning. *Open Educational Resources: Innovation, Research and Practice*. Retrieved from https://oerknowledgecloud.org/sites/oerknowledgecloud.org/files/pub_PS_OERIRP_web.pdf
- Eickelmann, B., and J. Gerick. 2020. "Lernen Mit Digitalen Medien: Zielsetzungen in Zeiten Von Corona Und Unter Besonderer Berücksichtigung Von Sozialen Ungleichheiten [Learning with Digital Media: Objectives in Times of Corona and under Special Consideration of Social Inequities]." *Die Deutsche Schule* 16: 153-162. doi:10.31244/9783830992318.09.
- Ertmer, P. "Addressing first- and second-order barriers to change: Strategies for technology integration," *Educational Technology Research and Development*, vol. 47, no. 4, pp. 47-61, 1999.
- Fraillon, J., J. Ainley, W. Schulz, T. Friedman, and D. Duckworth. (2019). *Preparing for Life in a Digital World: The IEA International Computer and Information Literacy Study 2018 International Report*. New York: Springer.
- Fraillon, J., J. Ainley, W. Schulz, T. Friedman, and E. Gebhardt. (2014). *Preparing for Life in a Digital Age: The IEA International Computer and Information Literacy Study International Report*. New York: Springer Open. doi:10.1007/978-3-319-14222-7.
- Frat, M., izmirli, S., Kabakç, I., and Kuzu, E., (2010). Opinions of Teachers on Using Internet Searching Strategies: An Elementary School Case in Turkey. *Turkish Online Journal of Qualitative Inquiry*, July 2010, 1(1)
- Frey, B. A., Kearns, L. R., & Tomer, C., (2014). A Study of Personal Information Management Strategies for Online Faculty. *Journal of Asynchronous Learning Networks - Vol 18, No 1* (2014).
- Galloway, J. P. (2011). Technology education and integration: A position paper on attitude, perspective, and commitment. Paper was reached on February 12, 2011, at: <http://jerrygalloway.com/papers/ict99.htm>.
- Garret, N. (1991) "Technology in the service of language learning: Trends and issues," *Modern Language Journal*, vol. 75, no. 1, pp. 74-101.
- Ghavifekr, S., Ahmad Zabidi A. R., Muhammad Faizal A. G., Ng Y. R., Yao M., & Zhang, T. (2014). ICT integration in education: Incorporation for teaching & learning improvement. *Malaysian Online Journal of Educational Technology*, 2(2), 24-46.
- Grant, J., Moss, J., & Epps, C. (2010). Using video-facilitated feedback to improve student performance following high-fidelity simulation. *Clinical Simulation in Nursing*, 6(5), 177-184.
- Guzman, A., & Nussbaum, M. (2009). Teaching competencies for technology integration in the classroom. *Journal of Computer Assisted Learning*, 25, 453-469. doi:10.1111/j.1365-2729.2009.00322.x

- Harjanto, A. S., & Sumarni, S., (2019). Teachers' Experiences on The Use of Google Classroom. 3rd English Language and Literature International Conference (ELLiC). Proceedings – (ELLiC Proceedings Vol. 3, 2019). ISSN: 2579-7263
- Hassan, M.A., et al. (2011). Perceived usefulness of ict usage among Jkkk members in peninsular Malaysia: Asian Social Science, 7,10, 255-266.
- Hussain, A. J., Morgan, S., & Al-Jumeily, D. (2011). How Does ICT Affect Teachings and Learning within School Education In Developments in E-systems Engineering (DeSE), 2011 (pp. 250-254). IEEE.
- Isisag, KU (2011). The positive effects of integrating ICT in Foreign Language Teaching. Available from: [http://conference.pixelonline.net/ICT4LL2012/common/download/Paper_pdf/235-IBT107-FP IsisagICT2012.pdf](http://conference.pixelonline.net/ICT4LL2012/common/download/Paper_pdf/235-IBT107-FP%20IsisagICT2012.pdf).
- Jamieson-Proctor, R., Albion, P., Finger, G., Cavanagh, R., Fitzgerald, R., Bond, T., & Grimbeek, P. (2013). Development of the TTF TPACK Survey Instrument. Australian Educational Computing, 27(3),26-35.
- Kozlowski, K. A., Mikesina, L., & Genova, A. (2015). Incorporating technology into a school counseling body image group. Retrieved from <https://www.counseling.org/docs/defaultsource/vistas/incorporatingtechnology-into-a-school-counseling-body-image-group.pdf?sfvrsn=8>
- Lari, F. S. (2014). The Impact of Using PowerPoint Presentations on Students' Learning and Motivation in Secondary Schools. International Conference on Current Trends in ELT. Procedia - Social and Behavioral Sciences 98 (2014) 1672 – 1677.
- Lewis, S. (2003). Enhancing teaching and learning of science through use of ICT: Methods and materials. School Science Review, 84 (309), 41-51.
- Loague, A. M., Alexander, J. J., & Reynolds, G. P. (2010). The school counselor web page. Retrieved from https://www.counseling.org/docs/defaultsource/vistas/vistas_2010_article_62.pdf?sfvrsn=b665e8d_11
- Malaysia Education Blueprint 2013-2025. (2013). Preliminary Report. Preschool to Post-Secondary Education. Ministry of Education Malaysia.
- Marcial, D. E. (2017). Predicting the Adoption of an Android-Based Class Record Using the Unified Theory of Acceptance and Use of Technology Model. Proceedings of International Conference on Technology and Social Science.
- Nair, I., & Das, V. M. (2011). Analysis of recent studies undertaken for assessing acceptance of technology among teachers using TAM. International Journal of Computer Applications, 32(8), 38–46.
- Nguyen, H. V. (2013). An Investigation into the Effectiveness of Using some Web 2.0 tools on Learning Speaking and Listening to Sophomores, College of foreign Languages, University of Danang. Danang: University of Foreign Languages.
- Ogwu, E.N., & Ogwu, F.J. (2010). Technologies and utilizations in schools: Implications to learning. Journal of Technology Integration in the Classroom, 2(1), 47-55.
- Schoepp, K. "Barriers to technology integration in a technology-rich environment," Learning and Teaching in Higher Education: Gulf Perspectives, vol. 2, no. 1, pp. 1-24, 2005.
- Sipacio, PJF (2014). 'Confronting challenges in implementing e-portfolio via Facebook in a Philippine university'. Indonesian Journal of Applied Linguistics, vol. 4, no. 2, pp. 44-55.
- Sivakumar, R., (2019). Google Forms in Education. Journal of Contemporary Educational Research and Innovations. Vol.9, No.1, pp.35-39., ISSN 2249-9636
- Steele, T. M., Jakobs, D. E., & Stone, C. B. (2014). An examination of the role of online technology in school counseling. Professional School Counseling, 18, 125–135. doi:10.1177/2156759X0001800118
- Tanveer, M. (2011). Integrating e-learning in classroom-based language teaching: Perceptions, challenges and strategies. Available from: http://conference.pixelonline.net/ICT4LL2011/common/download/Paper_pdf/IEC141-252-FP-Tanveer-ICT4LL2011.pdf. [23 June 2016].
- Tarhini, A., Hone, K., & Liu, X. (2015). A cross-cultural examination of the impact of social, organizational and individual factors on educational technology acceptance between British and Lebanese university students. British Journal of Educational Technology, 46, 739–755. doi:10.1111/bjet.12169
- Teo, T. (Ed.). (2011). Technology acceptance in education: Research and issues. Retrieved from <http://users.ugent.be/~wduyck/articles/PynooDevolderTondeurVanBraakDuyckDuyck2011b.pdf>
- Thanh Hue, Ly & Ab Jalil, Habibah. (2013). Attitudes towards ICT integration into curriculum and usage among university lecturers in Vietnam. International Journal of Instruction, 6, 53-66.
- Toumi, M. (2015). Integrating ICTs to Improve EFL Learners' Speaking Skill. (Dissertation Thesis), Mohamed Kheider University of Biskra, Algeria.
- Türel, Y. K., & Johnson, T. E. (2012). Teachers' Belief and Use of Interactive Whiteboards for Teaching and Learning. Educational Technology & Society, 15(1), 381–394.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46, 186–204. Retrieved from http://www.vvenkatesh.com/it/organizations/Theoretical_Models.asp#Con=structdefs
- Watermeyer, R.; Crick, T.; Knight, C.; Goodall, J. (2020). COVID-19 and digital disruption in UK universities: Afflictions and affordances of emergency online migration. High. Educ.
- Yang, K. T., & Wang, T. H. (2012). Interactive White Board: Effective Interactive Teaching Strategy Designs for Biology Teaching. Tech, E-Learning-Engineering, On-Job Training and Interactive Teaching, 139- 154.
- Yunus, M. M. Lubis, M. and Lin C. (2009). "Language Learning via ICT: Uses, Challenges and Issues," WSEAS Transactions on Information Science and Applications, vol. 6, no. 9, pp.1453-1467,