

The Employment of Multimedia Elements in Classroom Teaching Among TESL Teacher-Trainees In University Malaysia Sabah

Amanda Hollygrace Peter¹ and Wardatul Akmam Din²

^{1,2}*Faculty of Psychology and Education, Universiti Malaysia Sabah*

amandahpeter99@gmail.com & wardadin@ums.edu.my

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ABSTRACT

The employment of multimedia in classroom teaching has pushed education into one step higher from the conventional approach teaching method to more participatory and exciting teaching and learning process. The purpose of this research is to explore the degree to which multimedia is used in classroom instruction among TESL teacher-trainees during the practical teaching. A total of 37 respondents comprising of fourth year TESL teacher-trainees from University Malaysia Sabah participated. This study also aims to find out whether or not the TESL teacher-trainees integrate multimedia in classroom teaching and if they do, the study aims to identify the multimedia elements they frequently use and if not, the study wants to find out the reasons for not integrating multimedia in their classroom teaching. As a result, it was observed that even among those that integrate multimedia, there are limitation to using multimedia in the classroom activity. Furthermore, the advantages stemming from the integration of multimedia have also been discovered. The result of the data analysis revealed three major findings namely the forms of multimedia incorporated in classroom teaching by TESL teacher-trainees, the benefits of the integrating multimedia in the classroom and the limitations. Based on the results, numerous discussions and suggestions are formed in order to enhance the incorporation of multimedia in classroom education

Keywords: *multimedia, integration of multimedia, TESL teacher-trainees*

INTRODUCTION

As a global language, English has considerable clout in many parts of the globe. In Malaysia, all students are required to study the English language. The goal is to improve students' ability to use English for both social and professional purposes. Students should be proficient in the use of English for a variety of tasks, including asking questions, reading and understanding course materials, and producing written work. As a result, teaching children to listen attentively, read critically, comprehend elaborately, communicate articulately, and write well is a priority. Therefore, students need to acquire not only pronunciation and language abilities but also grammar, as it is regarded as a crucial aspect in studying English, to accomplish these aims. Implementing technology in education as an extra instrument to increase language learning and competence and to equip students with crucial skills is not a simple undertaking in the twenty-first century. Another example of a difficulty our society and government are facing in our

educational system is preparing for globalisation, information, and communication revolution in a growing nation. The computer and other forms of multimedia technology have proven to be useful tools in classrooms throughout the globe. However, owing to inadequate infrastructure and the high cost of access, the usage of technology is still in its infant stage in the Malaysian school system. When compared to other countries, firms in Malaysia are very slow to adopt new technologies. For a long time, schools have been running with inadequate supplies. Back then, schoolbooks and teachers' expertise were the only reliable resources for learning a topic. Even though they often provide out-of-date material, textbooks serve a crucial function throughout this period. Furthermore, the 2 teachers are the sole credible authority on the subject matter. This demonstrates how far behind other emerging countries we are.

Therefore, this present paper aims to investigate the type of multimedia integration in classroom activities, to discover the benefit of integrating multimedia in classroom activity and to recognize the limitation of integrating multimedia in classroom activity. To fulfill these aims, a research question/research questions needs to be addressed:

- i. Does the integration of multimedia motivate students to engage in classroom activity?
- ii. How does the implementation of multimedia promote interest within students.

LITERATURE REVIEW

The effect of using multimedia on students' performance

According to Dwyer, students may get knowledge and information that would be hard to obtain in conventional methods and the possibility to develop their own goods using multimedia techniques (1993). As a consequence, it may be argued that the usage of multimedia has the goal of assisting students with varying talents and learning styles. Furthermore, Dwyer emphasizes that multimedia allows students to work independently. In other words, a student may work on a task that she or he feels she or he needs to in the manner that she or he wishes (Dwyer, 1993). Furthermore, multimedia increases the authenticity and diversity of learning and education. According to Semerci (1999), the message through multimedia reaches the recipients in a variety of ways, providing a richer learning environment. The concepts being taught might be transferred to students via web-based audio, images, video, and animations in ways that traditional methodologies could not genuinely teach in classrooms. Closeness to reality and total learning might be obtained in this manner (Semerci, 1999). Furthermore, multimedia facilitates education in terms of data use, storage, sharing, and transit of visual and 8 nonvisual textual material, graphs, audios, and other resources. Compared to conventional teaching and learning approach, multimedia usage improves students' academic success. When appropriately planned, the usage of multimedia has a significant impact on education in terms of academic attainment compared to conventional teaching (Akkoyunlu and Ylmaz, 2005).

The use of multimedia in an educational setting

According to Almara'beh, Amer & Suleiman (2015), traditionally, the encyclopedia, which is normally accessible at the library, would be the major source of knowledge for student and they would gather numerous textual resources on a CD-ROM with access to interactive multimedia. For context, in the medical field, the student may replicate a diagram showing the skeleton and muscle structure of the subject they are learning. Using multimedia approach, the student may include video snippets of these creatures in their native environment into a report. The student now has a fresh and unique means of presenting his or her own unique viewpoint by adding titles

and credits. Similarly, a university lecturer utilize multimedia to prepare or update content or to teach in order to elevate his/her teaching, therefore unconsciously boosting the quality of the course. Furthermore, to an extent, through the use of multimedia,

Multimedia in classroom

The world around us is changing as a result of technological advancements. The academic environment is no different. Students and instructors worldwide are finding new and interesting methods to make learning more dynamic and relevant to the technological advance world. Table 1 displays the examples of multimedia and its benefit if incorporate it into the existing curriculum.

Table 1 Benefits of Multimedia

Multimedia	Benefits
Video Report	Encourage teamwork and give hands-on experience with new technologies.
Video Language Lessons	Can aid to accelerate learning
Slideshow Presentation	They are used for nearly any topic and are simple to make using multiple editing software such as Canva and Slides Go.
Podcasting	A communication technology that allows anybody to generate audio files and upload them on the internet for others to download.
Convert lessons to MP3	Students are permitted to listen to content more than once.

The extent of the employment of multimedia in classroom teaching

According to Puteh & Shukor (2010), they have investigated the extent of the integration of multimedia elements in classroom teaching among TESL teacher-trainees during their practical teaching. Based on their results, according to the findings, even we try to integrate multimedia, there are limits to including it in classroom instruction, which this research has uncovered. Aside from that, the advantages of incorporating multimedia have been established. The data analysis resulted in three major findings: the types of multimedia incorporated in classroom teaching by TESL teacher-trainees, the benefits of integrating multimedia in the classroom and the limitations.

Several implications and suggestions are taken from the data to enhance the inclusion of multimedia in classroom education. According to the research, there are several benefits to incorporating multimedia into classroom instruction. For starters, responders discovered that including multimedia in the class motivates kids to learn. Furthermore, the use of multimedia components such as video, animation, graphics, text, and music may make the course more engaging and interesting to students. This indirectly draws students' attention while also aiding their understanding of the material. Furthermore, since the incorporation of multimedia activates and stimulates the memory process, pupils can remember the information presented. Furthermore, the respondents discovered that students engaged actively in the classroom since multimedia activities reduced their anxiety levels. Furthermore, pupils were able to readily complete the activities. This demonstrates that incorporating multimedia into classroom instruction improves knowledge of a subject. 11 According to the results, certain evident barriers are preventing TESL teacher-trainees from completely incorporating multimedia into their classroom instruction. For starters, most of the schools where they practised teaching did not have a computer in the classroom. As a result, they must utilize the multimedia room or language

lab to include multimedia into the lecture. However, although some schools have a language lab or multimedia room, it is not always enough for the usage of the students.

The usage of the multimedia room and the language lab is probably restricted since other classes may use the classroom also. Furthermore, the research titled "Multimedia in the classroom-reality or fantasy" by Abdullah, Hatharan and Ibrahim (2021) has found that some of the experimental group in their research preferred multimedia courseware beneficial compared to conventional teaching approach. Any educator interested in designing and implementing multimedia courseware must examine several aspects. Converting printed text to electronic display involves some imagination, intelligence, and time-consuming preparation. A courseware developer must have the technical knowledge to properly use the possibilities of multimedia authoring tools.

Knowledge of instructional concerns such as the volume and appropriateness of content, layout design, images, background music, user interface, and so on is required. Another critical issue that must be considered is the degree of learner autonomy mandated by the programme. The collaboration model, in which a team of content specialists and technology experts collaborates, is more practical for practicing instructors since the effort can be distributed among team members. When working in a team, however, 12 certain concerns must be made, such as the coordination and synchronization of the transformational and development processes. Additionally, resources (reference material, hardware, software, funding) that will aid in the smooth progression of the courseware creation stage must be made accessible. To effectively integrate the courseware into regular classes, a well-thought-out methodology (allocating acceptable and adequate watching time, ensuring that the viewing time fits the classroom lesson/schedule) must be developed during the implementation stage.

Other factors to consider include the student-computer ratio, access mode (self-access or assigned), and built-in mechanisms such as awarding participation marks, using the courseware as part of an assignment, and conducting a short evaluation after the viewing to ensure that students attend the viewing. To summarize, most educators and educational institutions are still unable to employ in-house generated multimedia courseware in the classroom.

METHODOLOGY

This study adopted mixed methods, incorporating qualitative and quantitative methods of study to fulfil the objectives. The data obtained from this study would then be analysed in the pursuit of gaining clarification of the research question. The main objective is to see if the TESL teacher-trainees employ multimedia elements in classroom teaching and to re-educate and motivate the integration of multimedia in classroom activity among them.

The research was conducted as an experiment in which the researcher tried to employ multimedia elements in an ESL classroom. This experimental research helped the researcher answer questions about whether the TESL teacher-trainees integrate multimedia elements in teaching classroom teaching, enhancing students' performance and understanding. The design was mixed-method which consisted of qualitative and quantitative, and the data was analyzed statistically. This allowed the researcher to know the employment of multimedia elements in classroom teaching. This experiment took four months to be conducted. A control group design was used in this study. The sampling was chosen randomly to test independent variables.

The population of this research was the TESL teacher-trainees of the University Malaysia Sabah which consists of 37 teacher-trainees. There is only one instrument used in this research, that is questionnaire. The questionnaire was designed to investigate the forms of multimedia

integration in classroom activities. The questionnaire was given only to the TESL teacher-trainees going to practicum. The would-be Part A, which consists of the respondent's personal information. The information includes their gender, age, name of school they are doing their practicum at and how many class they are teaching. As for Part B, which is the qualitative method that is a series of few questions that includes what are the benefits of integrating multimedia elements in classroom teaching, the limitation of using multimedia in classroom activity, and the reasons of not integrating multimedia in classroom activity. The validity of the questionnaire and interview questions was evaluated to verify that they could adequately address the study issues. Cronbach's Alpha was also used to determine the questionnaire's reliability coefficient.

This research was conducted by giving the experimental group the questionnaire on the week 14 which is near the end of their practicum, this is because the TESL teacher-trainee can do provide a reflective answer towards the research on what they have implement throughout their teaching practice. The questionnaire's data will be collected and analyses using Statistical Package for The Social Science (SPSS) and thematic analysis.

FINDINGS AND DISCUSSION

The overall aim of the study was to investigate the forms of multimedia integration, to determine the benefit of integrating multimedia, to identify the limitation of integrating multimedia and the reasons of not integrating multimedia in classroom activity. The questionnaire comprised of 2 sections with a total of 4 personal information of the respondent, 1 closed-ended question and 6 open-ended questions that were developed to ensure rigour and objectivity of data. This study was conducted among 37 TESL final year trainee teaching of University Malaysia Sabah, Kota Kinabalu. Overall, 36 respondents answered the questionnaire as in Table 2.

Table 2 Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	28	71.8	80.0	80.0
	Male	7	17.9	20.0	100.0
	Total	35	89.7	100.0	

There was a total of 28 female participants, which represented 71.8% of the quantitative data while there were only 7 male participants which is 17.9%. All of the respondents are also participants in the qualitative data.

According to Table 3, the majority of the respondents are at the age of 24 (53.8%), followed by 23 years old which stands at 23.1%. This study also consists of 4 respondents at the age of 24(10.3%) and only 1 respondent that is 26 years old (2.6%).

Table 3 Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	23	9	23.1	25.7	25.7
	24	21	53.8	60.0	85.7
	25	4	10.3	11.4	97.1
	26	1	2.6	2.9	100.0
Total		35	89.7	100.0	

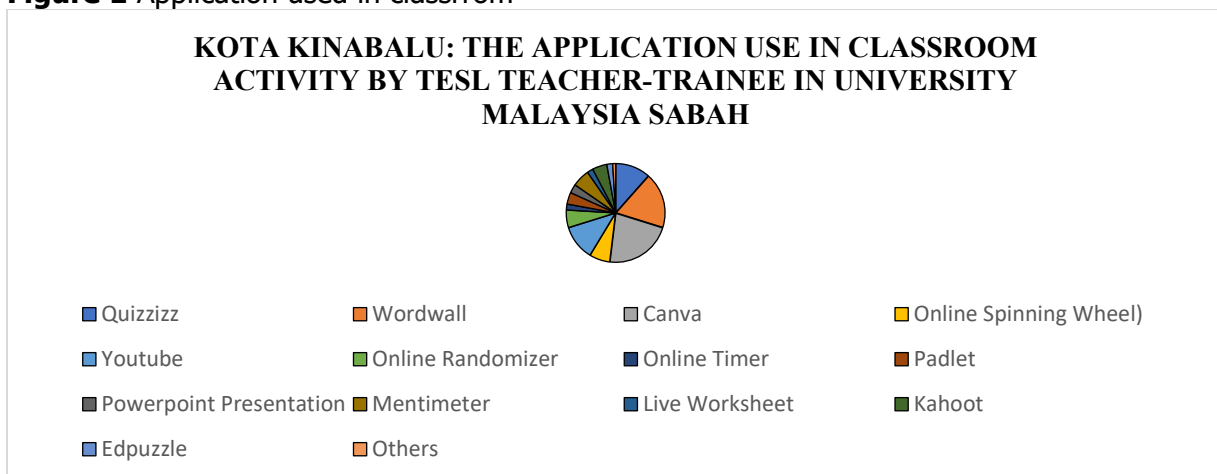
Table 4 The Integration of Multimedia Elements

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	35	89.7	100.0	100.0
Missing	System	4	10.3		
Total		39	100.0		

According to Table 4 above, it is a clear indication that all the respondent answer "YES" for whether or not they integrate multimedia elements in their classroom activity. The total of respondents answer "YES" is a total of 35 respondents and 0 respondents answer 'NO'. The responses from the respondent on the benefits of integrating multimedia elements in classroom teaching and learning process gives a clear indication that indeed integrating multimedia in classroom activity, promotes interest within student which enhance the engagement of the classroom activity.

Based on the research results, the application that the trainee-teacher used is as follows in Figure 1.

Figure 1 Application used in classrrom



As we can see, the highest number belongs to the application of Canva with 23 respondents using this application, following that is Wordwall with 19 respondents, both Quizzizz and Youtube have a tie in terms of the number of users using this application that is 12 respondents. Other application such as Google Classroom, Voki, Google Slides, Live Worksheet and others have been a choice to some of the respondents. The students are more interested in learning than when they are being taught conventionally. This is because when a respondent showed Canva slideshow, they were engaged, and it is easier the teacher to explain the lesson topic rather than rewriting the lesson notes on the whiteboard. With that being said, the researcher believed the reason that Canva became a choice to TESL teacher-trainees is because the interface of the application/software is user-friendly, and it makes slideshows, video, posters, and pictures easier to produce.

Furthermore, as an overall theme for the research question is that the integration of multimedia indeed motivates students to engage in classroom activity as well as promote their interest in participating in the classroom activity. Therefore, referring to the research result, most respondents agree that the lesson becomes more interesting when multimedia elements are implemented in the activity. Multimedia facilitates classroom activity and content which makes the lesson fun, interactive and students are able to engage actively due to the fact that they are excited to play the game created from applications such as Wordwall or Mentimeter. Through the use of multimedia in terms of gamification, it increases classroom participation as students are excited to engage in the activity which allows them to explore the lesson themselves. Other than that, the visuals such as the graphics, pictures or videos display through Powerpoint Slideshows, Youtube or Kahoot aid students to learn better especially with lower proficiency. The use if the elements sparks both the teacher and the students' creativity especially when it comes to productive skills such as speaking and writing activity, the elements are usually being presented in the forms of prompts to direct students' way of thinking.

Not only that, when multimedia elements are included in the lesson, students' attention retention are expand as the student are attracted to audio-visual elements of the multimedia, since students are prone to become unmotivated in traditional classroom setting when the teacher uses only textbook. Therefore, with the help of creative elements, the students will be attracted to the information presented and stay focused. Example, teacher uses Youtube to show a video about a topic, students unconsciously are drawn towards the audio and visual of the video, with that, students' attention are focus to the content of the 26 video which increase the students' knowledge retention because student have a better understanding of a certain topic. Moreover, multimedia elements assist students' comprehension on the topic discussed. There are different types of learners in a classroom, some are visual learners while some adore competition, hence the use of multimedia elements enables the students to access different styles of learning and continue to discover their strengths as a language learner.

The Education Ministry of Malaysia introduce 21st Century Learning approach in 2017, which focuses on the use of technological advancement and a approach to student-centered learning in the classroom. Therefore, in this era, the integration of multimedia elements using different software, gadgets and applications are crucial in helping the students to achieve their academic potential.

IMPLICATION OF THE STUDY

The employment of multimedia elements in classroom teaching has a significant role in the education system especially working towards a 21st century learning approach, Hence, through this research, the sample, fourth year TESL teacher-trainee can have a better understanding of

the importance of integrating multimedia elements in classroom activity. The researcher believe that the conducted research could be a resource of reference to educator or school administrative because the research can contribute to a point of view of the local school on how effective the integration of multimedia can affect students' academic performances especially the engagement and motivate students to learn efficiently.

Additionally, this research could guide both teacher and student to increase the employment of multimedia in classroom activity. By incorporating elements of multimedia such as videos, pictures and audio, students' attention retention span which can lead to a student-centered learning because student is focus in learning from the video or PowerPoint slides the teacher are showing in class and through that, students are able to be in control of what they are learning. Therefore, teachers or educators are advised to conduct a multimedia integrated classroom environment to ensure students can learn effectively and efficiently.

CONCLUSION

In conclusion, the integration of multimedia technology in education has brought about a significant paradigm change, which will influence our educational system and the pedagogical approaches employed by teachers, as well as the learning experiences of students. The available data strongly suggests that digital teaching and learning will experience significant growth inside Malaysian higher education institutions. Additionally, it is anticipated that multimedia will emerge as a very effective platform for instructional purposes within the classroom setting. The advent of multimedia technologies in the educational sphere and the emergence of a technologically adept generation of youngsters have led to an unavoidable transformation in the function of teaching and learning. The interchange of information is taking place through digital means, and the educational curriculum is undergoing changes to integrate multimedia components and interactive functionalities, thereby enhancing the educational experience for both students and teachers.

The current trajectory in educational approach and strategy is moving towards the incorporation of technology within the 36-classroom setting. Hence, inside this context, multimedia can serve as a strategic instructional medium inside our education system and facilitate the process of teaching and learning. The integration of multimedia in educational settings has gained widespread popularity worldwide, including among teacher-trainees, where numerous educators have adopted multimedia as part of their academic programmes.

The integration of information and communication technologies (ICT) and multimedia technologies within the realm of education holds the potential to cultivate a workforce that is more equipped to address the demands of the contemporary IT society in the 21st century.

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