

Challenges Faced by Trainee Teachers in the Implementation of Multimedia Teaching Aids

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ABSTRACT

Multimedia teaching aids have become a critical component in contemporary education particularly in supporting engaging and student centred learning aligned with 21st-century pedagogical demands. However, trainee teachers continue to encounter challenges that hinder the effective integration of multimedia tools during teaching practicum. This qualitative case study explores the key challenges experienced by Arabic language trainee teachers in Malaysian secondary schools. Purposive sampling was used to select ten participants who were interviewed using semi-structured protocols and the data were thematically analysed with ATLAS.ti. Findings reveal seven interrelated challenges: insufficient facilities, non-conducive classroom environments, varied student reception, internet limitations, technical issues, limited teaching time and lack of guidance. The study contributes nuanced insights into the practical realities of multimedia-based pedagogy from a trainee teacher's perspective, highlighting implications for teacher preparation programmes, institutional support mechanisms and policy development to strengthen technology enhanced teaching.

Keywords: Multimedia teaching aids, technology, 21st-century pedagogical, trainee teachers, multimedia-based pedagogy.

INTRODUCTION

A trainee teacher is a future educator who has undergone both theoretical and practical teacher training to enable them to conduct the teaching and learning process smoothly for students. Teacher who has received teaching training and been equipped with various teaching guidelines whether theoretical or practical, a variety of interesting, creative and motivational teaching approaches can be applied to enhance student's proficiency in both spoken and written language (Norhapidah & Nur Farakhanna, 2023).

In line with the development of the education system, the teacher training received by trainee teachers must expose them to educational practices that align with future education trends, shaping them into competent and highly potential educators. The trainee teacher education program as a foundation for future educational practices plays a crucial role in developing the competence, inclination and leadership potential of future educators (Amirul Fahmie et al., 2024). A deep understanding of current educational practices can help trainee teachers deliver lessons effectively.

Therefore, every trainee teacher must possess skills in using teaching aids as they are closely related to the success of lesson planning before the teaching session takes place. Every individual who bears the title of a teacher has specific skills in the use of teaching aids because their implementation is closely associated as a form of support to ensure student's understanding in the classroom (Kamarulnizam & Nur Solehah, 2024). The preparation of teaching aids in teaching requires teachers to plan before the class begins as it must be recorded in the daily lesson plan.

Teaching Aids are no longer unfamiliar among teachers as they are considered a form of support in enhancing student's understanding during the teaching and learning process. This statement is supported by Abdul Razif Zaini et al. (2019), the use of teaching aids is an essential component in teaching and learning process.

Various multimedia tools are commonly used by teachers in the classroom to support the teaching and learning process, such as smart boards, whiteboards, computers and many others. Some of these teaching and learning support tools include the use of computers, smart boards, whiteboards, storage disks and various types of software to create quizzes, test questions and so on (Norhapidah & Nur Farahkhanna, 2023). However, the use of these tools alone is insufficient to achieve the effectiveness of 21st-century learning.

21st-century learning, which requires various activities that enhance student engagement in the classroom, must be supported using multimedia teaching aids to create an interactive and enjoyable learning environment. Interactive multimedia teaching aids support learning activities in line with 21st-century education (Yulyani et al., 2023). It is evident that the use of multimedia teaching aids is a crucial element in ensuring that the teaching delivered by trainee teachers aligns with 21st-century learning.

The advancement of technology today also impacts the use of technology in education. Therefore, it is essential for trainee teachers to possess skills and knowledge in utilizing technology to fully benefit from it in creating multimedia teaching aids. According to Muhammad Hakim et al. (2024), technological skills and knowledge are key elements that must be incorporated into teacher training programs to ensure that future generations of teachers can adapt to digital changes in the educational landscape.

The development of multimedia usage has led to educational practices integrating technology as a vital component of the learning process. Advances in science and technology, particularly in multimedia have revolutionized educational practices, making the integration of information technology into the learning process essential. This clearly shows that modern education requires the use of multimedia and technology to achieve effective teaching and learning in the classroom.

Besides knowledge of technology, trainee teachers must also focus on digital media technology to prepare themselves as future educators. The mastery of digital media technology skills has gained widespread attention in education, making it one of the most crucial aspects for trainee teachers to acquire before becoming future educators (Ain Syafia & Rohaizat, 2022). This aspect must be emphasized from the teacher training stage to enable future teachers to adapt to the education field, which aligns with the new generation's learning preferences.

With technological and digital media skills, trainee teachers can apply these competencies to incorporate various multimedia elements into the teaching and learning process, in addition to using tangible teaching materials. Educators are encouraged to integrate and apply all multimedia elements in delivering teaching and learning to students, including those in higher education institutions (Rozelia Haizah & Nur Farahkhanna, 2022). This aspect should be emphasized at all levels of education from schools to universities as modern students are increasingly inclined toward multimedia-based learning.

To create an engaging classroom environment and maximize student participation, trainee teachers must prioritize the diverse use of multimedia in the classroom based on their technological skills. To create enjoyable learning, teachers can use technology such as developing interactive multimedia to support a fun learning process. Interactive multimedia can be used in all subjects (Randhi Lasepdika et al., 2023). This highlights the significance of multimedia in supporting enjoyable learning and its suitability for various academic disciplines.

The use of multimedia teaching aids also fosters interactive learning enabling two-way communication between students and teachers. Interactive multimedia provides two-way communication interactively adding value for users in exploring the content it offers as it is supported by interactive functions (Siti Sri et al., 2022). Multimedia helps trainee teachers create interactive learning experiences and enhances student engagement holistically. This, in turn, increases student participation and improves their comprehension of lessons that incorporate multimedia elements.

METHODOLOGY

Research Design

This study employs a qualitative research design, specifically a case study to provide a detailed explanation of the challenges faced by trainee teachers in using multimedia teaching aids during their teaching practice.

Population and Sampling

The study population consists of trainee teachers from Sultan Idris Education University who are pursuing a bachelor's degree in Arabic Language with Education. A total of 10 trainee teachers were selected as study participants using purposive sampling. The selection of participants was based on the following criteria:

1. Participants have completed four months of teaching practice in schools.
2. Participants have experience using multimedia teaching aids during their teaching practice.
3. Participants can commit to the study throughout its duration.

Research Instrument

The research instrument used in this study is a structured interview conducted individually with each participant. Each interview session lasted between 10 to 15 minutes and consisted of three main sections in the structured interview questionnaire. The first section collected demographic information about the participants, such as age, gender, and duration of teaching practice. The second section focused on information regarding the schools where participants conducted their teaching practice, including the type and location of the school. The third section comprised the main questions aimed at identifying the challenges faced by trainee teachers in using multimedia teaching aids in the classroom. These questions were designed to ensure that the data collected were relevant to the research questions and could be analyzed thematically.

Data Analysis

After conducting interviews with each participant, the researcher analyzed the data using a thematic analysis approach with the help of Atlas.ti software. Atlas.ti assisted in organizing raw data, identifying relevant codes and grouping these codes into appropriate themes based on the research objectives. The visual features of the software enabled the researcher to identify themes related to the challenges faced by trainee teachers, thereby addressing the research questions effectively.

RESEARCH FINDINGS

Demographic Information

Table 1: Demographic Information

Participant Code	Age	Gender	Teaching Practice Duration (Months)
TT 1	23	Male	4
TT 2	26	Male	4
TT 3	24	Female	4
TT 4	23	Male	4
TT 5	24	Female	4

TT 6	23	Female	4
TT 7	23	Female	4
TT 8	23	Female	4
TT 9	26	Male	4
TT 10	24	Male	4

The participants, referred as TT (Trainee Teachers) consist of 10 trainee teachers from Sultan Idris Education University who are pursuing a bachelor's degree in Arabic Language with Education. The participant's ages range from 23 to 26 years old. Among them, four are male (TT 1, TT 2, TT 4 and TT 9), while six are female (TT 3, TT 5, TT 6, TT 7, TT 8 and TT 10). All participants have completed four months of teaching practice in schools. This demographic distribution provides a balanced representation of both male and female trainee teachers, ensuring diverse perspectives in understanding the challenges of implementing multimedia teaching aids during teaching practice.

School Information

Table 2: Participant's School Information

Participant Code	School Type	Area
TT 1	SABK	Rural
TT 2	SMKA	Rural
TT 3	SMK	Urban
TT 4	SMA	Rural
TT 5	SMK	Urban
TT 6	SMK	Urban
TT 7	SMK	Urban
TT 8	SMK	Urban
TT 9	SMKA	Rural
TT 10	SMA	Rural

Based on Table 2, the trainee teachers were placed in different types of schools for their teaching practice. TT 1 completed the teaching practice at a Sekolah Agama Bantuan Kerajaan (SABK), while TT 2 and TT 9 were placed in Sekolah Menengah Kebangsaan Agama (SMKA). A total of five participants, namely TT 3, TT 5, TT 6, TT 7 and TT 8, conducted their teaching practice at Sekolah Menengah Kebangsaan (SMK). Meanwhile, TT 4 and TT 10 carried out their teaching practice at Sekolah Menengah Agama (SMA).

Regarding the school location, five participants (TT 3, TT 5, TT 6, TT 7 and TT 8) completed their teaching practice in urban schools, whereas the remaining five participants (TT 1, TT 2, TT 4, TT 9 and TT 10) were assigned to rural schools. This distribution allows for a diverse range of experiences in different educational settings, highlighting the challenges faced in both urban and rural areas.

Challenges Faced by Trainee Teachers in Using Multimedia Teaching Aids During Teaching Practice

Figure 1: Summary of Themes on Challenges Faced by Trainee Teachers in Implementing Multimedia Teaching Aids

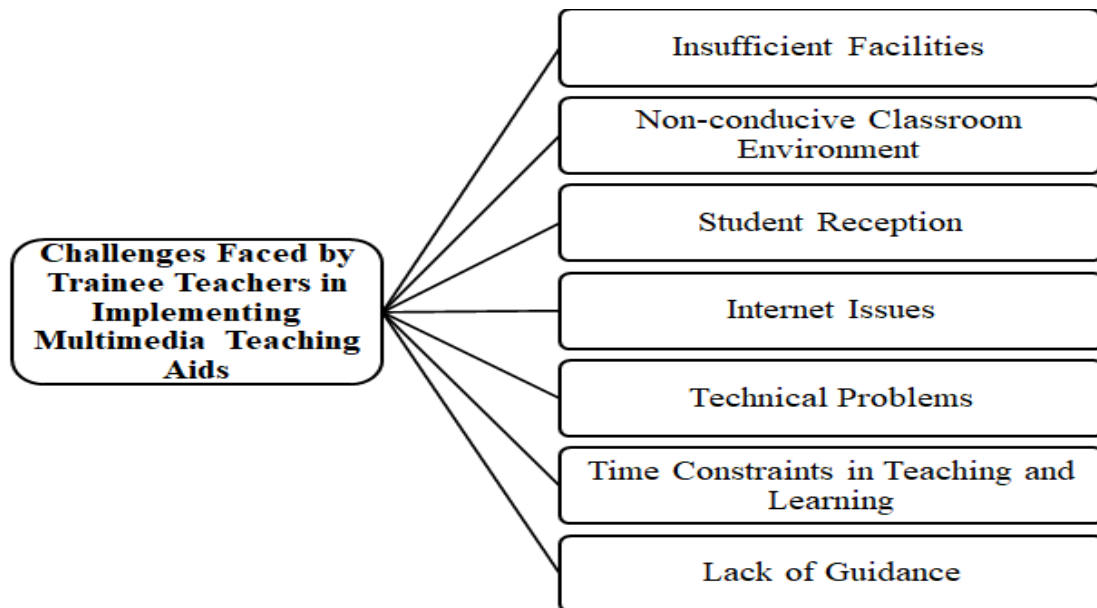


Figure 1 presents the findings from interviews conducted with 10 Arabic language trainee teachers who have completed their Teaching Practice (TP) in schools. Researchers has identified seven key challenges faced by these trainee teachers in using multimedia teaching aids. These challenges are (1) insufficient facilities, (2) non-conducive classroom environment, (3) student reception, (4) internet issues, (5) technical problems, (6) time constraints in teaching and learning and (7) lack of guidance.

Theme 1: Insufficient Facilities

The findings indicate that the lack of adequate facilities was one of the primary challenges faced by trainee teachers in integrating multimedia teaching aids during classroom sessions. This issue stems from four main causes (1) absence of a remote control, (2) no projector available, (3) lack of a projection screen and (4) insufficient power sockets. The following interview excerpts highlight these difficulties:

“Regarding the projector, the main issue is that there is no remote control. So, I have to ask students to turn it on by climbing onto a chair. Since the remote control is missing or often misplaced, I have to rely on students to manually turn on the projector.” (Untuk projektor, dari segi permasalahannya alat kawalan jauh tak ada, so saya kena minta pelajar untuk hidupkan projektor dengan memanjat kerusi. Sebabkan alat kawalan jauh tu takde atau selalu hilang entah kemana, saya kena minta pelajar panjat kerusi atau meja untuk hidupkan projektor tu secara manual) - TT 1

“Using multimedia teaching aids in class is really difficult because the most basic facility that every classroom should have a projector is simply not available.” (Saya nak gunakan bahan bantu mengajar multimedia ni dalam kelas amatlah sukar sebabnya kemudahan yang paling basic setiap kelas kena ada iaitu projektor pon tiada di dalam kelas tu) - TT 5

“It’s challenging to get a clear visual projection in the classroom because some classrooms do not have a designated screen for the projector. As a result, students struggle to see what is being displayed.” (Untuk nak guna projektor ni susah sikit nak dapat visual yang jelas di depan kelas tu, sebabnya ada kelas yang tiada layar yang khas untuk projektor tersebut ditayangkan. Jadi pelajar sukar nak nampak apa yang ditayangkan melalui projektor tu) - TT 2

“Setting up the necessary equipment for multimedia teaching aids is a struggle because there aren’t enough power sockets in the classroom to connect my laptop, projector and speakers simultaneously. Sometimes, the

sockets are available but damaged, further reducing the number of usable power sources.” (Saya nak pasang alat-alat untuk gunakan BBM multimedia ni pon susah, sebabnya plug yang tersedia di dalam kelas tu tiada dan tidak mencukupi untuk saya pasang laptop, projektor dan speaker pada masa yang sama. Kadang tu memang ada plug, cumanya dah rosak dan ini mengurangkan lagi bilangan plug yang boleh digunakan di dalam kelas tu) - TT 10

Theme 2: Non-conductive Classroom Environment

Findings from the interviews revealed that an inconducive classroom environment is one of the challenges faced by trainee teachers in using multimedia teaching aids during teaching and learning sessions in the classroom during their teaching practice. This issue can be attributed to one main factor (1) non-soundproof classrooms. This was acknowledged by the interview as follows:

“Another challenge when using speakers for listening skills activities is that my school does not have a dedicated soundproof classroom. So, I have to use the speakers in the classroom, but the problem is that the sound cannot be heard properly because the classroom is not soundproof. Additionally, my classroom is located next to a busy road, so the noise from vehicles and trucks is very loud which disrupts the teaching and learning activities.” (Cabarannya satu lagi kalau kita guna pembesar suara untuk melaksanakan kemahiran mendengar, disebabkan sekolah saya tak ada satu bilik khas yang kedap bunyi, jadi saya kena buka pembesar suara tu atau speaker di dalam kelas, tapi masalahnya adalah suara tersebut tak dapat di dengar sebabnya kelas tak kedap bunyi, kelasnya pula berada disebelah jalan raya, jadi bunyi kenderaan dan lori kuat sangat sehingga mengganggu aktiviti PdP tersebut) – TT 3

Theme 3: Student Reception

Findings from the interviews revealed that student reception is another challenge faced by trainee teachers in using multimedia teaching aids during teaching and learning sessions in the classroom during their teaching practice. Student reception can be categorized into three main factors (1) students prefer tangible teaching aids, (2) student proficiency levels and (3) students get bored easily. This was acknowledged by the interview as follows:

“The challenge in terms of student reception is that some students accept multimedia materials because they are interested in them while others prefer learning with tangible objects things that physically exist. So, student reception is one of the challenges I face.” (Cabaran dari segi penerimaan pelajar ada pelajar yang boleh menerima bahan multimedia sebab dia minat, itu kecenderungan dia dan ada juga kumpulan pelajar yang dia lebih suka belajar menggunakan benda yang wujud benda yang wujud jadinya kat situ penerimaan pelajar pun adalah salah satu cabaran juga yang saya hadapi) - TT 10

“Sometimes, the online materials are not suitable for the student’s proficiency levels. For example, the content might be too advanced or too basic which may not achieve the desired impact. If the material is too difficult, students might feel stressed or lose focus because it’s too challenging for them.” (Kadangkala bahan yang ada dalam atas talian ni, dia tak sesuai dengan tahap penguasaan pelajar, okey contoh dia bahan kita ni terlalu maju atau terlalu asas, mungkin dia tak memberi impak yang kita nak, jadi kalau kita guna bahan yang terlalu sukar, pelajar ni pun mungkin akan rasa tertekan atau dia orang hilang fokus sebab macam susahlah) - TT 4

“The challenge is that sometimes the materials we use are not appropriate or they might be too easy making students feel bored. They might think, ‘Oh, this is too simple, this is too easy’ which reduces the effectiveness of the learning process.” (Cabaran dia macam itulah kan tak sesuai sangat bahan yang kita guna tu kan ataupun boleh jadi juga bahan tu terlalu mudah pula untuk membuat pelajar tu rasa bosan, “lah senang sangat kacang lah” sampai benda tu boleh kurangkan keberkesanan pembelajaran itulah) - TT 8

Theme 4: Internet Issues

Findings from the interviews revealed that internet issues are one of the challenges faced by trainee teachers in using multimedia teaching aids during teaching and learning sessions in the classroom during their teaching

practice. Internet issues can be categorized into four main factors (1) Weak internet connection, (2) Limited internet access, (3) Schools do not provide Wi-Fi and (4) Internet connectivity disruptions. This was acknowledged by the interview as follows:

“For using an LCD or projector, the challenge is that while the equipment is available, the main issue sometimes lies with the internet. The internet connection is quite poor, which makes it difficult for me to use because I mostly rely on Canva. That’s where the problem arises.” (Untuk penggunaan LCD atau projector, cabarannya dari segi bendanya ada cumanya problem ni kadang-kadang problemnya dekat internet, internetlah agak kurang berangsang untuk saya guna sebabnya saya mostly guna canva jadi problemnya di situ) - TT 7

“There are some issues when using multimedia teaching aids such as weak internet connectivity.” (....ada masalah lah sikit nak guna BBM multimedia, ataupun mungkin juga macam sambungan internet yang lemah ke) - TT 6

“The main challenge when teaching with multimedia is, first and foremost, the limitation of internet access. This is a frequent issue, especially when it involves equipment and internet connections. As I mentioned earlier, if we teach in rural areas, getting internet access can be quite problematic.” (Cabaran utama kan bila kita nak ajar menggunakan multimedia ni okey yang pertama yang selalu kita punya cabaran adalah keterbatasan akses internet, ia kerap dihadapi terutamanya yang melibatkan peralatan dan sambungan internet macam saya cakap tadi tambah pula kalau kita mengajar tu dekat kawasan pedalaman ke apa kan, nak dapat capaian internet tu kan macam agak sedikit problem lah kan) - TT 4

“The first issue is the lack of high-speed internet access because the school does not provide Wi-Fi.” (Yang pertama adalah kurang akses internet yang tinggilah kerana sekolah tidak menyediakan wifi) - TT 5

“The challenge I faced while using multimedia teaching aids was internet connectivity disruptions, as using Canva requires a stable internet connection.” (Cabaran yang saya hadapi semasa menggunakan bahan bantu mengajar yang berbentuk multimedia tersebut adalah gangguan capaian internet kerana penggunaan Canva tersebut memang perlu menggunakan internet) - TT 8

Theme 5: Technical Problems

Findings from the interviews revealed that technical problems are one of the challenges faced by trainee teachers in using multimedia teaching aids during teaching and learning sessions in the classroom during their teaching practice. Technical issues can be categorized into four main factors (1) frequent power outages due to maintenance, (2) overly sensitive smartboards, (3) Non-functional microphones and (4) blurred or malfunctioning LCD projectors. This was acknowledged by the interview as follows:

“The issue is that too much maintenance was happening at the time which caused power outages. The building was undergoing maintenance for several months.” (... cumanya mungkin ketika saya jalankan tu terlampau banyak terlampau kerap maintenance berlaku so menyebabkan elektrik tak ada sebabnya bangunan tu memang kebetulan memang maintenancenya berlaku lama ya selama beberapa bulan) - TT 1

“During my first time using the smartboard, it was quite tricky because the smartboard was very sensitive. For example, when a female student stood in front, even her hijab would interfere with the board causing the slides to change unexpectedly. The smartboard was so sensitive that even a breath could make it move.” (Untuk penggunaan kali pertama tu sedikit kekok sebabnya smartboard tu sedikit sensitif lah contohlah macam buat present ada pelajar perempuan ada dekat depan tudung sahaja dah mengganggu keadaan smartboard, tiba-tiba smartboard dah ke slide seterusnya dan sebagainya lah, problemnya buat yang tadi tu lah tambahan yang pasal smartboard yang terlalu sensitif, hembus nafas je dia dah bergerak) - TT 3

“When I wanted to use the microphone, suddenly there were no batteries, and I couldn’t connect it. Then, when I tried to use slides, the LCD projector wouldn’t turn on or was too blurry.” (Masa saya nak guna mikrofon, time tulah takde bateri, masa tulah tak boleh nak connect, lepastu kalau nak guna slaid tiba-tiba lcd tak boleh hidup ataupun kabur ha macam tu) - TT 4

Theme 6: Time Constraints in Teaching and Learning

Findings from the interviews revealed that time constraints in teaching and learning are one of the challenges faced by trainee teachers in using multimedia teaching aids during teaching and learning sessions in the classroom during their teaching practical. Time constraints in teaching and learning can be categorized into four main factors (1) time-consuming setup, (2) lesson plan objectives not achieved, (3) teaching time disrupted and (4) wasted instructional time. This was acknowledged by the interview participants as follows:

“The second challenge is time. I personally need a lot of time to prepare multimedia materials for my lessons. Also, when setting up or arranging the technology-related equipment to display multimedia content in class, it takes time before I can actually start the lesson.” (Yang kedua adalah masa cabaran dia dari segi masa saya sendiri perlukan masa yang banyak untuk menyediakan bahan multimedia berkaitan dengan pengajaran yang saya nak lakukan ataupun apa yang saya nak ajar dan ketika saya nak setup ataupun ketika mengunggah barang untuk setup benda berkaitan dengan teknologi untuk saya tayangkan bahan-bahan multimedia kepada kelas tu pun mengambil masa saya untuk memulakan sesi pengajaran) - TT 2

“So, when we’ve planned to use multimedia teaching aids but end up not being able to use them, it drags the lesson time and slightly deviates from our daily lesson plan.” (So saya rasa bila kita dah plan tu, kita nak guna sesuatu bahan bantu mengajar Multimedia tu, tapi tak dapat nak digunakan, masa pengajaran tu akan drag dan dia agak lari sikit lah dari kita punya perancangan pengajaran harian tu) - TT 9

“Getting internet access is already a problem. Not only does it waste teaching time, but it also reduces the quality of the learning session, preventing students from experiencing a smooth teaching and learning process.” (Nak dapat capaian internet tu kan macam agak sedikit problem lah kan ni dia bukan je dirugikan masa pengajaran tu tapi boleh dapat kurangkan kualiti sesi pembelajaran tu lepas tu dia boleh menghalang student tu untuk mendapatkan pengalaman sesi pengajaran dan pembelajaran tu lebih lancar macam tu) - TT 4

“To use the screening room, I had to ask for permission from the assigned teacher. If they weren’t in the designated room, I had to search for them which wasted even more time.” (Untuk gunakan bilik tayang ni, kena minta dekat guru yang bertugaslah, kalau dia orang tak ada dalam mana-mana bilik yang dia orang sepatutnya ada tu jadi kita kena macam kena mencari diorang kat mana, jadi tu dah memakan masa dah) - TT 7

Theme 7: Lack of Guidance

Findings from the interviews revealed that lack of guidance is one of the challenges faced by trainee teachers in using multimedia teaching aids during teaching and learning sessions in the classroom during their teaching practice. Lack of guidance can be categorized into three main factors (1) rushed explanations, (2) no assistance from other teachers and (3) assigned teachers absent from designated rooms. This was acknowledged by the interview as follows:

“When I first used the smartboard, I wasn’t given proper exposure. There was guidance, but the explanation was rushed. The teacher who explained it to me was in a hurry, so I only got rushed instructions.” (Ketika saya guna smartboard, yelah kali pertama kan, saya tak diberikan pendedahan dan sebagainya pendedahan ada cumanya rushing cikgu, yang terangkan kepada saya tu rushing saya dapat benda-benda yang rushinglah) - TT 10

“Then, if I wanted to use slides but the projector wouldn’t turn on or was blurry, I had to ask for help from other teachers. However, they were busy with their assign classes.” (...lepastu kalau nak guna slaid tiba-tiba projektor tak boleh hidup ataupun kabur, ha macam tu lepas tu kita nak mohon bantuan daripada guru-guru yang lain pun guru-guru yang lain ada kelas) - TT 4

“Since the infrastructure was limited to either the computer lab or the screening room, I had to ensure there were no scheduling conflicts. I had to check if the room was available and if I needed assistance, I had to find the assigned teacher. But if they weren’t in the room, I had to search for them elsewhere which was time consuming.” (Bila infrastruktur tu aa terhad, sama ada boleh menggunakan ia dalam bilik makmal komputer

ataupun bilik tayangan saja, jadi terdapat beberapa masalah kat situ sebab bila nak guna kita kena pastikan tak ada pertindihan yang berlaku dan tengok jadual waktu untuk bilik tersebut sama ada kosong atau pun tidak dan kita kena minta dekat guru yang bertugaslah, kalau dia orang tak ada dalam mana-mana bilik yang dia orang sepatutnya ada tu jadi kita kena macam kena mencari diorang kat mana) - TT 7

DISCUSSION

This study findings reveal insights into the perspectives of Arabic language trainee teachers regarding the challenges of using multimedia teaching aids during teaching practice. Seven themes contributing to the challenges faced by trainee teachers were identified: (1) insufficient facilities, (2) non-conductive classrooms, (3) student reception, (4) internet issues, (5) technical problems, (6) time constraints in teaching and learning and (7) lack of guidance. After the participants shared the challenges they encountered, it became evident that each emerging theme is interrelated.

In this study, the lack of sufficient classroom facilities was highlighted by participants as one of the challenges in using multimedia teaching aids. This aligns with the study conducted by Mohd Razimi et al. (2020), which found that other essential needs are still lacking. For instance, more comprehensive and suitable teaching aids are necessary. The study participants also believe that with adequate classroom facilities, the implementation of multimedia teaching aids can be carried out smoothly. The required facilities include the availability of projectors in classrooms and ensuring that all necessary equipment such as remote controls is fully provided.

The study participants considered non-conductive classrooms and student reception as closely related aspects of the challenges in using multimedia teaching aids during the teaching and learning process. According to Syarif Hidayatullah et al., 2024, teachers often face difficulties in capturing student's attention because a non-conductive classroom environment can cause some students to be distracted and unable to comprehend the material presented by the teacher at the front of the class. When the classroom environment is not conducive, teachers struggle to gain student's attention due to the setting not supporting the use of multimedia teaching aids.

The study participants also indicated that internet issues are among the challenges faced by trainee teachers when using multimedia teaching aids. According to Rozalia Haizah and Nur Farakhanna (2022), internet accessibility in urban and rural areas varies significantly. Internet access in urban areas is more reliable and easily available. However, in contrast, rural and remote areas often experience weak internet connectivity and some areas even lack internet access entirely. This highlights that internet accessibility differs by location; schools in urban areas tend to have better internet access whereas those in rural or remote areas may struggle with weak connectivity.

Regarding the theme of technical issues, the researcher found that participants faced technical difficulties when using multimedia teaching aids in the classroom. These technical issues are also closely related to time constraints in the teaching and learning process. In line with the study conducted by Fatimah (2023), time management during remote learning frequently exceeded the allocated duration due to technical problems that trainee teachers needed to resolve during the sessions. In the context of this study, the researcher found that the challenges trainee teachers face concerning technical issues impact the teaching time in class.

Participants also believed that a lack of guidance was one of the challenges faced in using multimedia teaching aids during teaching practice in the classroom. Educators are also human beings with their own lives, facing various personal challenges (Nilavani & Khairul Azhar, 2021). Therefore, educators should be supported and motivated to carry out their responsibilities appropriately. This statement supports the interview participant's claims that the absence of guidance and support from teachers in implementing multimedia teaching aids posed a significant challenge for trainee teachers.

This study is expected to contribute to the knowledge and preparation of trainee teachers by exposing them to the challenges encountered in using multimedia teaching aids. These challenges are not only faced by trainee teachers but remain a topic of discussion among teachers and school authorities. By focusing on the challenges examined in this study, trainee teachers, teachers, schools and universities can identify practical alternatives to

overcome these challenges, ultimately enhancing trainee teacher's ability to use multimedia teaching aids more effectively during teaching practice.

The findings of this study can also help reduce the challenges trainee teachers face when using multimedia teaching aids in the classroom during teaching practice through proper preparation and provision of sufficient materials. This study also impacts the teaching and learning process delivered by trainee teachers and may even affect the observations conducted by supervising lecturers. Strengthening the use of multimedia teaching aids must be emphasized at the school and university levels so that trainee teachers and educators can fully leverage technology-based teaching in line with modern advancements.

This study expands research on the challenges faced by trainee teachers in using multimedia teaching aids in Malaysia and broadens existing knowledge about multimedia teaching aids from a non-Western perspective. Through this study, it is evident that the use of multimedia teaching aids among trainee teachers is crucial for improving education quality and enhancing student engagement in the classroom. Therefore, school administrators must create a classroom environment conducive to using multimedia teaching aids by providing the necessary equipment to support their usage. A classroom environment that facilitates the use of multimedia teaching aids can offer crucial support to teachers in integrating multimedia teaching aids into their lessons.

CONCLUSION

This study identifies seven major challenges faced by Arabic language trainee teachers in using multimedia teaching aids during teaching and learning sessions at schools. First, insufficient facilities, including the lack of basic equipment such as projectors, screens, remote controls and electrical plugs which limits the use of multimedia teaching aids. Second, non-conducive classrooms particularly due to noise issues arising from non-soundproof classrooms. Third, varying student reception, where some students prefer tangible materials and materials that are either too simple or too complex may reduce teaching effectiveness. Fourth, internet issues, including weak connections, limited access, lack of Wi-Fi and connection disruptions that hinder the use of online multimedia teaching aids. Fifth, technical problems such as maintenance issues, overly sensitive equipment or device malfunctions including faulty projectors and microphones. Sixth, time constraints in teaching and learning, where trainee teachers struggle to manage time when setting up equipment while ensuring their daily lesson plans run smoothly. Lastly, a lack of guidance, where limited support and assistance from other teachers make it difficult for trainee teachers to use multimedia teaching aids effectively. These challenges highlight that using multimedia teaching aids in education requires better infrastructure support, time management and guidance to enhance the effectiveness of multimedia teaching aids and the teaching and learning process.

RECOMMENDATIONS

Based on the challenges faced by trainee teachers, several recommendations can be considered to improve the use of multimedia teaching aids. First, schools should enhance basic facilities such as projectors, screens and electrical plugs while ensuring that multimedia equipment is regularly maintained. Additionally, a conducive classroom environment can be created by providing dedicated soundproof rooms or positioning classrooms away from noisy areas. A stable and high-speed internet connection should also be provided especially in rural areas to support the use of online multimedia teaching aids.

In terms of teaching, trainee teachers are encouraged to use multimedia teaching aids appropriate to the student's proficiency level and engaging enough to prevent boredom while also undergoing intensive training to select or create suitable materials. Support and guidance from mentor teachers are also crucial. Effective time management can be achieved by providing clear guidelines on using multimedia teaching aids without disrupting the daily lesson plan. Lastly, further research should be conducted to identify more effective approaches to increasing student engagement with multimedia teaching aids such as incorporating gamification elements or interactive technology. By implementing these recommendations, the effectiveness of multimedia teaching aids used by trainee teachers can be improved ultimately contributing to better teaching and learning quality.

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