

Pre-service teachers' perceptions towards the implementation of multimodal texts in microteaching classes

Persepsi guru pra-kerja terhadap implementasi teks multimodal di kelas microteaching

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ABSTRACT

In the digital age, technological advances impact EFL language instruction in Indonesia. After examining the current and future demands of education, prospective educators need to attain the minimum standards to fulfill students' needs in the twenty-first century. Multimodal texts in education are one way to solve today's pedagogical needs. The current study explores pre-service teachers' perceptions of their performance in utilizing multimodal texts in microteaching classes. Data were collected from the 6th-semester students from the English Language Education Study Program, the Faculty of Cultural Studies, Universitas Brawijaya, Indonesia. This research applied mixed methods, combining data collection from observation, questionnaires as primary sources, and a focus group discussion (FGD) to support the data. Then, the questionnaire data were analyzed quantitatively, and data from the FGD were coded and analyzed using thematic analysis. The finding shows that the pre-service teachers applied five types of multimodal texts in microteaching classes. In addition, although most of them perceive positively toward the use of multimodal texts in their teaching practice, there are still challenges in implementing digital-based multimodal texts, such as limited access to digital applications and confusion in integrating digital applications into learning activities.

KATA KUNCI

multimodal, calon guru bahasa Inggris, kelas praktik ajar

ABSTRAK

Di era digital, kemajuan teknologi berdampak pada pengajaran Bahasa Inggris di Indonesia. Setelah melihat tuntutan pendidikan saat ini dan masa depan, calon pendidik perlu mencapai standar minimum untuk memenuhi kebutuhan siswa di abad kedua puluh satu. Teks multimodal dalam pendidikan merupakan salah satu cara untuk menjawab kebutuhan pedagogis saat ini. Studi saat ini mengeksplorasi persepsi calon guru tentang kinerja mereka dalam memanfaatkan teks multimodal di kelas microteaching. Data dikumpulkan dari mahasiswa semester 6 Program Studi Pendidikan Bahasa Inggris, Fakultas Ilmu Budaya, Universitas Brawijaya, Indonesia. Penelitian ini menggunakan metode campuran, menggabungkan pengumpulan data dari observasi, kuesioner sebagai sumber data utama, dan *Focus Group Discussion* (FGD) untuk mendukung data. Kemudian data kuesioner dianalisis secara kuantitatif, dan data hasil FGD diberi kode dan dianalisis menggunakan analisis tematik. Temuan menunjukkan bahwa calon guru menerapkan lima jenis teks multimodal di kelas microteaching. Selain itu, meskipun sebagian besar dari mereka berpersepsi positif terhadap penggunaan teks multimodal dalam praktik pengajaran, masih ditemukan beberapa tantangan dalam mengimplementasikan teks multimodal berbasis digital, seperti keterbatasan akses ke aplikasi digital dan kebingungan dalam mengintegrasikan aplikasi digital ke dalam bentuk kegiatan pembelajaran.

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Introduction

Study area of English Language Teaching (ELT) has advanced rapidly due to the ever-progressing communication technologies. People's lives changed significantly, especially after the Covid-19 Pandemic. In the world of education, changes are needed for classroom to utilize and facilitates these fast-changing society. Students in this era are not far from technologies. In the digital age, language acquisition combines kinesthetic, aural, and visual learning techniques (Camarillas & García, 2016). Nowadays, when visual, audio, and video content are preferred over text content, English language learners use a variety of media to get information and enjoy simultaneous interactions (Kızıl, 2017). Therefore, teachers should apply new pedagogical strategies involving technological use in their classrooms. Multimodality has become a trending topic among teachers and researchers. According to Arola et al. (2014), multimodality refers to how teachers combine different classroom modes to raise the students' language acquisition skills (Arola et al., 2014). Students need to utilize a variety of learning modes in the classroom to comprehend language abilities and gain literacy levels as a mean of communication (Lim & Polio, 2020). Therefore, teachers can improve the standard of learning in English lessons by developing their instructional media through multimodal texts. Assessing and using diverse communication and expression modalities is necessary for students to comprehend rhetorical circumstances, including efficient communication with an audience (Cook & Kirchoff, 2017). After seeing these conditions, multimodal texts can be a solution that teachers can use to create digital standard classes.

Multimodal texts includes many modes of representation (Prickett, 2012). Students need to have the ability to comprehend multimodal texts in a range of formats, able to acknowledge the meaning of the text, and communicate successfully in modern society (Horarik, 2004). Therefore, teachers must instruct students in multimodal reading and choose the appropriate texts to engage students in reading multimodal texts both inside and outside of the classroom (Eisenmann & Summer, 2020). Students today need to understand texts connected to various multimodal forms of knowledge, including writings, videos, audios, pictures, and digital content. In EFL classes, multimodal texts are often composed of textual content, music, audio/video clips, and pictures (with colors), which are frequently organized in PowerPoint slides (Peng, 2019). According to Hadianto et al., (2021), accessing texts with multiple modalities, like picture books, requires comprehending meanings both from verbal and nonverbal sources (Hadianto et al., 2021).

In language teaching, media acts as a tool of interaction between teachers and students. It motivates learners by bringing examples from real life situations into the classroom and presenting the language in its broad communicative context. Integrating media use in the classroom is a crucial part of learning activities in the multimodal concept. Using various media in class can improve student engagement in learning. New media modalities, expanded and integrated into state-of-the-art classrooms, provide rich semiotic resources and can help promote classroom communication (Peng, 2019).

Consequently, studying multimodal texts can be a starting point for implementing new learning concepts and ideas. Pre-service teachers can integrate digital-based media into multimodal ideas in the classroom by using media platforms (for example, Padlet or Nearpod) or social media (for example, Instagram or TikTok) to support digital-based teaching to improve learning-teaching activities. Moreover, implementing multimodal texts in modern classrooms enhances teacher-student collaboration.

In recent years, research on implementing multimodal texts has been conducted from various perspectives regarding teaching and learning. Some correlated findings are used as the reference for this study. One of the studies by Avifah and Fajri (2022) conducted a survey targeted towards Pre-service EFL teachers' perception of educational video production (EVP) technology. The data were collected from pre-service teachers who took instructional materials or media development courses (IMALT/IMALD), computer-assisted language learning (CALL), and in-service lecturers, including the program director of a Language Education Department in Indonesian universities. The survey analysis was conducted using a semi-open questionnaire distributed online using the 'Typeform' tool. The study shows that pre-service teachers agreed that the integration of EVP into teacher's education program is vital (81%)

EVP could be a means to improve teachers' professional development, such as developing teachers' digital skills, creativity, and digital literacy. Furthermore, the results suggested that the workshop design should be devised as constructive learning focusing on project-based learning to help teacher candidates develop their skills in EVP. The workshop is also presented to provide some examples of today's educational video to bring into the discussion.

Furthermore, the multimodal concept has commonly been studied in various ways in English Language Teaching (ELT). For instance, multimodality as learning models in EFL classes (Fariás et al., 2011; Ilmi & Dewi, 2022), multimodality in literary work (Eisenmann & Summer, 2020; Thompson & McIlroy, 2019), multimodal texts analysis in academic discourses (Caple, 2018; Fajriah et al., 2021), multimodal literacy in language practice (Hafner, 2020; Serafini, 2015; Walsh, 2010), multimodal teaching in a writing class (Ryu & Boggs, 2016), multimodal communication in ELT (Hafner, 2020), the effect from multimodal tasks on students language abilities (Lim & Polio, 2020; Varaporn & Sitthitikul, 2019), and gender representation in the multimodal textbook (Ahour & Zaferani, 2016; Marefat & Marzban, 2014). However, as far as the researchers are concerned, no research has identified the pre-service teachers' perceptions of using multimodal texts in microteaching classes. During microteaching session, pre-service teachers teach their peers who acts as students. Perceptions are important as they are being prepared to become future teachers. Any mistakes can be easily corrected when the student-teacher perceptions are known.

Therefore, the goal of this research is to find out how pre-service teachers perceive the use of multimodal texts to increase students' participation in EFL classes. This study emphasizes how pre-service teachers use different instructional multimodal texts as learning media in microteaching classes. The implementation of digital teaching instruments is highlighted to bring together the features of the 21st-century EFL classes. Hence, this study tries to answer the following research question: 1) What multimodal texts are used by pre-service teachers? 2) What are the pre-service teachers' perceptions

toward the implementation of the multimodal texts in the microteaching classes? This research provides insights and assists future teachers to fulfill and accommodate the students' needs in this digital era.

Method

To investigate pre-service teachers' perceptions of the implementation of multimodal texts in microteaching classes, the authors conducted mixed methods to boost the validity of findings and provide researchers with a deeper understanding of the phenomena of interest (McKim, 2017). This study collected quantitative data by using observation, questionnaire, and qualitative data by using Forum Group Discussions (FGD) to describe and analyze the pre-service teachers' perspective on the use of multimodal texts in the microteaching classes. The purpose of questionnaires in this research is to obtain an acceptable amount of data from a relatively large number of future teachers (Ponto, 2015). The questionnaire relates to the pre-service teachers' perceptions on the use of multimodal texts in microteaching sessions. Moreover, to explore and enrich the data on how the pre-service teachers perceive the use of multimodal texts, a Focus Group Discussion (FGD) was conducted. FGD was a crucial aspect of designing a credible research, since it provided more detailed information to support the data collected from the questionnaire (Savović et al., 2014).

The data of the pre-service teachers' perspectives on the use of multimodal texts in the microteaching classrooms were collected from observations to portray what multimodal texts are used by the pre-service teachers. In addition, a five-point Likert scale questionnaire was used, in which from the 150 pre-service teachers enrolled in five microteaching sessions, only 124 (82%) completed the questionnaire distributed online through Google Form. Finally, following the data analysis from 124 respondents, 25 were selected randomly to participate in the FGD forum.



Figure 1. Focus Group Discussion

The FGD was split into two sections, and the duration of this FGD was over three hours. In the first session, 25 pre-service teachers were divided into five groups to participate in intensive discussions about how they are going to implement multimodal texts in their classes.

The second session was an open forum discussion where all participants shared their experiences and perceptions, and utilizing multimodal texts in microteaching sessions. The focus group discussion questions were: 1) What specific multimodal texts do pre-service teachers find most effective in enhancing their microteaching classes, and what

is the reason behind it? 2) What are pre-service teachers' perceived challenges in the process of integrating multimodal texts in microteaching, and what are their solutions? 3) How do pre-service teachers measure the impact of multimodal texts on student engagement and learning outcomes in their microteaching sessions? 4) In what ways do pre-service teachers believe that the integration of multimodal texts in microteaching classes can improve their own pedagogical skills and future teaching practices? 5) How effective is the student's response to a class that implements multimodal texts?

Finally, the researchers analyzed the data from the questionnaire quantitatively, and data from the FGD as qualitative data were analyzed using coding with thematic analysis.

Results

This section presents the results divided into two sections. The first part shows kinds of multimodal texts applied in the microteaching classes. The second section describes the pre-service teachers' perceptions toward the implementation of multimodal texts in the microteaching classes.

The multimodal texts used by the pre-service teachers

The results of observational data in the microteaching class found that there are five types of multimodal texts are often used by the pre-service teachers; 1) Digital based media, 2) Visual presentation media, 3) Gamification of learning media, 4) Social media content, and 5) Conventional media.

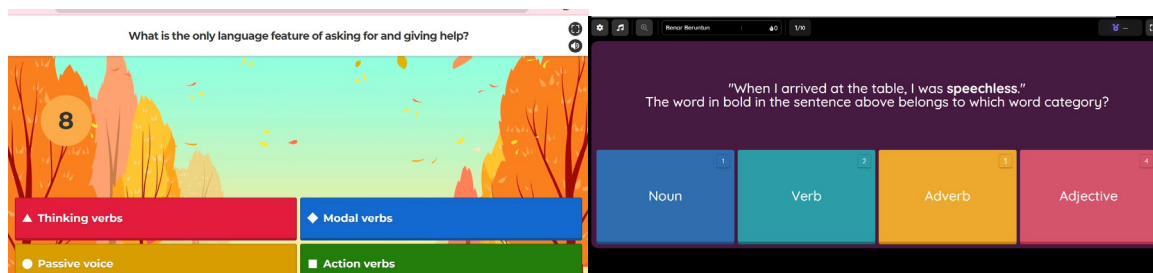


Figure 2. Digital-based media

Digital-based media is a type of learning media that utilizes the internet. This type of media requires an internet connection inside the class. Examples of digital-based learning media often found in microteaching classes are Quizizz, Kahoot, QuizWhizzer, and others. Pre-service teachers often use this type of media for activities such as quizzes, learning starters, and group games.

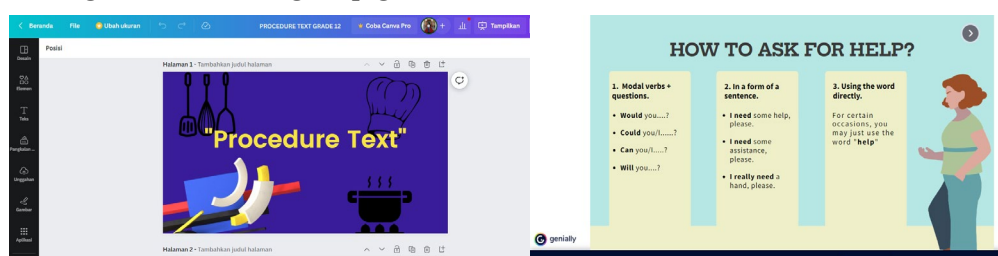


Figure 3. Visual presentation media

Visual presentation media is a type of media that delivers teaching materials visually. The form of this media can be animation, pictures, visual effects, and illustrations that are aimed to deliver information and entertain the audience. In the microteaching classes, the kinds of visual presentation media that the pre-service teachers often use are Canva, PowerPoint, and Google Slides.

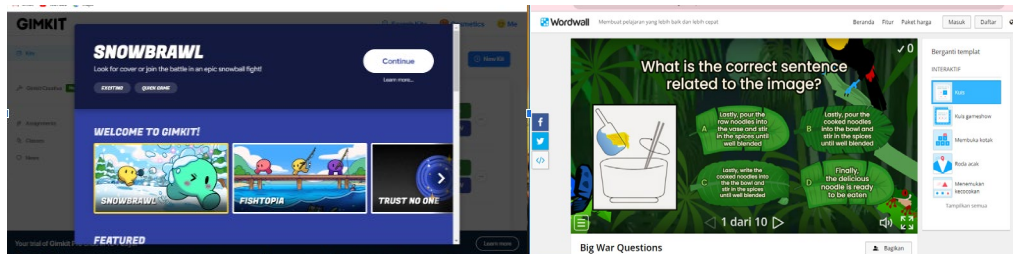


Figure 4. Gamification learning media

Gamification of learning media is a game that can modify interactive learning activities. This media type has several elements, such as points, timers, badges, and leaderboards. Currently, the development of gamification of learning media has experienced steady increase. Examples of its products are *Gimkit* and *Bamboozle*. Pre-service teachers often use this media for simple exercises and mini quizzes.



Figure 5. Social media content

In the digital era, it is difficult for students to be separated from social media. Therefore, social media content has been transformed into one of the media for education to adapt to the conditions of the times. Social media for education is always used as material sources for learning activities under the ease and speed of dissemination of information through social media applications.



Figure 6. Conventional media

Although digital media has been widely used for learning and teaching purposes, some pre-service teachers still use conventional forms of media such as printed photos, worksheets, blackboards, and Book Creator in addition to their digital media. Pre-service teachers use this media as a tool for group assignments, individual assignments, pre-tests, and post-tests in class.

To give a big picture of the use of different kinds of digital teaching media applied by the pre-service teachers, the questionnaire data are presented as follows.

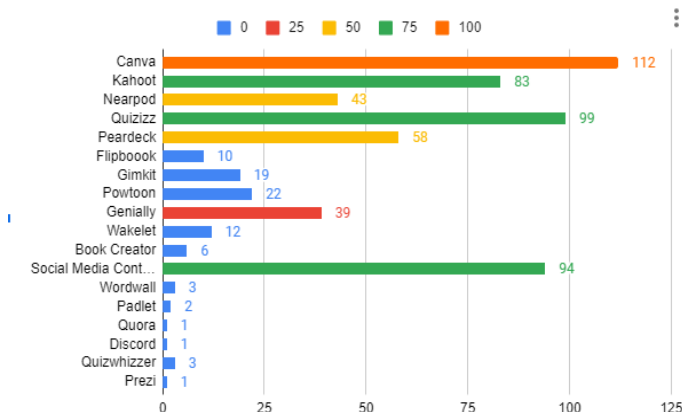


Figure 7. Multimodal texts use in microteaching classes

Figure 7 shows that the pre-service teachers dominantly used visual presentation media (112 respondents voted Canva, 58 respondents voted Peardeck, 43 respondents voted Nearpod, and 39 respondents voted Genially) during teaching. The second most often used media by the pre-service teachers is digital-based media. Figure 7 shows that 99 respondents voted for Quizizz, and 83 voted for Kahoot. Next, 94 respondents voted for social media content as multimodal texts used in microteaching classes. In addition, the respondents also used gamification of learning media (19 respondents voted for Gimkit). However, figure 7 also shows that the pre-service teachers still used conventional media (6 respondents voted Book Creator).

The pre-service teachers' perception toward multimodal texts

These sections are focused on the pre-service teachers' perception of 1) The effects of multimodal texts in the microteaching classroom, 2) The relevance of the multimodal texts in addressing the current needs of students, 3) How multimodal texts align with the characteristics of 21st-century teachers, and 4) The challenges in implementing multimodal texts in microteaching classes.

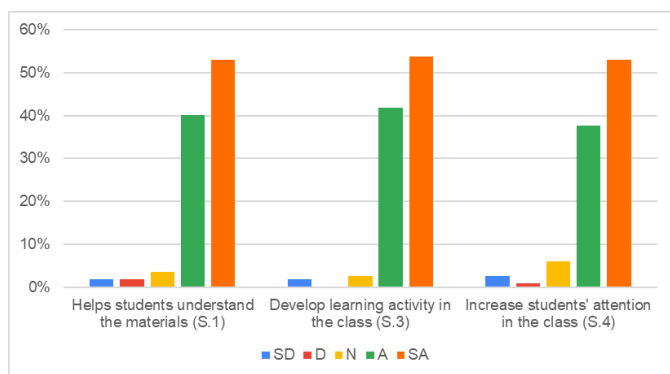


Figure 8. The effects of multimodal texts in microteaching classes

Figure 8 illustrates how multimodal texts affect microteaching classrooms. The data analysis shows that with regard to the three statements related to multimodal texts, which include statements that multimodal texts can help students comprehensively understand the material, develop learning activities, and increase students' attention in class, the respondents show a similar tendency. In all of the three statements, the biggest number of the respondents (average 53%) choose 'strongly agree.' The second position (average 40%) are those who choose to 'agree' with the statements. The rest, which is small in number, votes 'neutral' (average 4%), and 'disagree' or 'strongly disagree' (average 2%). This demonstrates that the multimodal texts present positive effect to the students' learning.

In addition, the data corroborated from FGD regarding the positive impact of multimodal texts helping students understand the material, increasing students' attention in the classroom, and enhancing students' learning motivation. Some of the pre-service teachers stated:

"Multimodal texts can facilitate students' comprehension and understanding of the learning material. Visuals, animations, and diagrams can clarify complex concepts, making them more accessible to students." (Respondent 1)

"Multimodal texts including visuals, audio, videos, and interactive elements, can capture students' attention and make the learning experience more engaging. It provides multiple entry points for students with different learning styles and preferences, increasing their willingness to participate actively." (Respondent 2)

"The use of multimodal texts can enhance students' motivation by making the learning material more relevant, engaging, and relatable. It can create a sense of curiosity and excitement, encouraging students to participate in class discussions." (Respondent 3)

In conclusion, the data analysis shows that incorporating multimodal texts into microteaching classes positively impacts comprehensiveness for student learning progress, developing learning activities in the classroom, and engaging students' active participation and learning motivation.

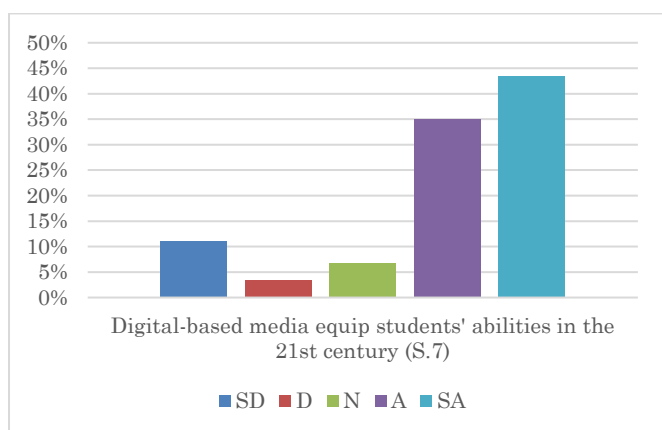


Figure 9. The Relevance of Multimodal Texts with Students' Current Needs

The questionnaire also indicates multimodal texts' relevance to current student needs. In Figure 9, most respondents (44% strongly agree, 35% agree) think that multimodal texts, especially digital-based media types, equip students' abilities in the 21st century. 11% of respondents stated "strongly disagree" with this statement (Figure 9).

Then, the rest respondents voted 'neutral' (7%) and 'disagree' (3%). This finding shows that multimodal texts are relevant to the needs of students in today's digital era.

Additionally, FGD participants also share their perspectives on the relevancy of multimodal texts to the current needs of students. Some of the pre-service teachers, stated:

"Multimodal texts can be customized to meet students' individual needs. Teachers can provide various materials and tools catering to different learning levels or interests. By tailoring the learning experience, students are more likely to feel connected and motivated, resulting in more effective responses." (Respondent 4)

"In today's digital era, I think students must be familiar with various types of digital media to fulfill their fluency in using the internet. By using multimodal texts in class, students can be more familiar with various of digital tools." (Respondent 5)

"The use of multimodal texts, especially digital-based ones, can also train students' digital literacy skills. The teacher presents several sources from the internet for teaching in class, and students capture the meaning of these sources as an example of digital literacy training activities for students." (Respondent 6)

To sum up, using multimodal texts in classroom learning is relevant and accommodates the students' needs today. In addition to helping learning activities, the multimodal texts also stimulate students' digital literacy skills.

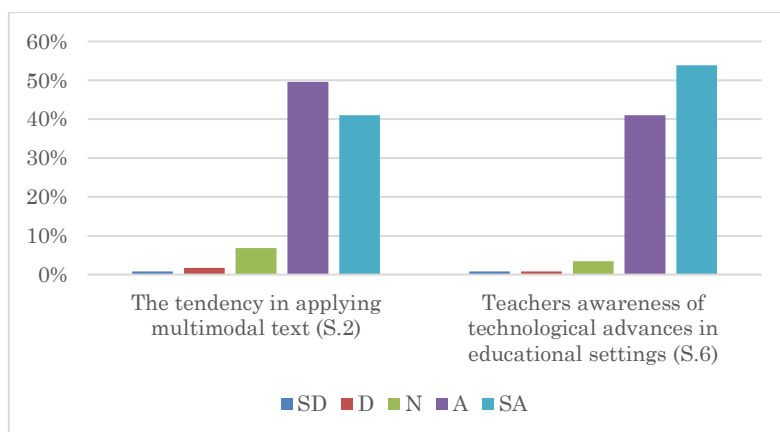


Figure 10. The characteristics of 21st-century teachers

Figure 10 shows the correlation between multimodal texts and the characteristics of 21st-century teachers. Data analysis shows that there are two statements related to multimodal texts that shows the characteristics of teachers in the 21st century, which include statements that are teachers' tendency to apply multimodal texts in the micro-teaching classes and the teachers' awareness of technological advances in educational settings. Most of the respondents (50% agree, 41% strongly agree) with the statement 'S.2', they think that one of the 21st characteristics of teachers is the teachers that often use multimodal text, especially in using digital-based media in the classroom. The rest, which were slight in number, chose 'neutral' (7%), 'disagree' (2%), and 'strongly disagree' (1%). Similar to the other statement, which shows a large number of respondents (54% strongly agree, 41% agree) infer that the characteristics of 21st-century teachers are those who are aware of technological advances in education. Other minimal numbers voted for 'neutral' (3%), 'disagree' (1%), and 'strongly disagree' (1%). Therefore, the results show the characteristics of teachers in the 21st century, which are those who

tend to use multimodal texts in class frequently and are aware of technological advances in educational settings.

Moreover, in the FGD session the participants also discussed what criteria indicate the characteristics of teachers in the 21st century. The following are some of the participants' statements in the discussion:

"Teachers learn to be better prepared in their classrooms due to the initial use of these multimodal texts because using diverse media requires much preparation. Learn time management as well because teachers may build various engaging activities in class and manage the turnover of each one." (Respondent 7)

"In the era of technological advances, the ability of teachers should be literate in the use of digital technology. It is also related to the development of students who adapt to today's modern life conditions." (Respondent 8)

"Technological proficiency is valuable for teachers in today's digital age. The pre-service teachers recognize that by integrating multimodal texts into their microteaching, they can become more familiar with educational technologies and develop the confidence and competence necessary to integrate technology in their future classrooms effectively." (Respondent 9)

To summarize, the results above show that the characteristics of 21st-century teachers are those who understand and actively use multimodal texts in class and are always aware of the latest advances in technological tools that can be utilized for learning activities.

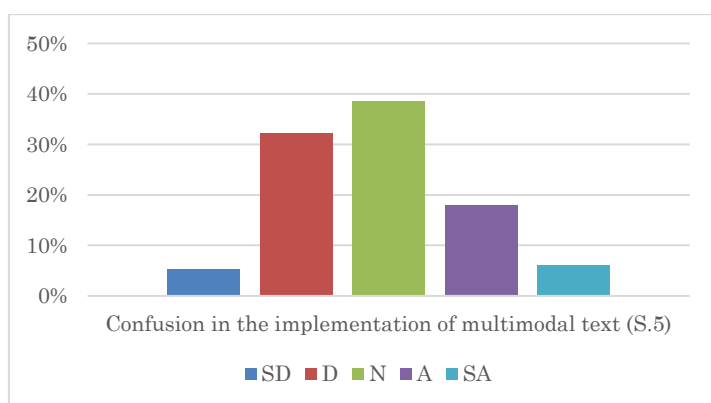


Figure 11. The challenges in implementing multimodal texts

Figure 11 illustrates the pre-service teachers' perception of the challenges faced in implementing multimodal texts in microteaching classes. The statement shows the percentage of pre-service teachers who still experience confusion when applying multimodal texts during teaching practice. The majority of respondents (38%) voted 'neutral'. The second highest number from the questionnaire (32%) chose 'disagree'. Then, 18% of respondents chose 'agree' showing that the pre-service teachers still experience confusion in implementing multimodal texts in the microteaching class. The rest, 6% chose 'strongly agree' and 5% chose 'strongly disagree'. In this way, the data analysis concludes that some pre-service teachers still felt confused when implementing multimodal texts in class.

Furthermore, the pre-service teachers also discuss the challenges faced in integrating multimodal texts and how they navigate these situations in their classroom implementation. During the FGD, three central cores discussed this matter, such as the prob-

lem of lack of proficiency, accessibility on learning resources, and comprehension of digital integration into learning activities. The following are examples of some of the pre-service teachers' statements in the FGD:

"Teachers learn to be better prepared in their classrooms due to the initial use of these multimodal texts because using diverse media requires much preparation. They also learn how to manage their time because teachers may build various engaging activities in class and manage the turnover of each one." (Respondent 10)

"Pre-service teachers may face challenges accessing the necessary resources, such as computers, software licenses, or high-quality multimedia content. Limited access to technology or budget constraints may restrict their ability to explore diverse multimodal texts options. To navigate this challenge, the pre-service teachers can explore free or open-source software alternatives that offer similar functionalities. They can also leverage online platforms and repositories that provide access to creative commons or royalty-free multimedia resources. Collaborating with fellow pre-service teachers or utilizing the resources available within their educational institutions can also help overcome this limitation." (Respondent 11)

"Pre-service teachers may struggle to integrate multimodal texts seamlessly into their lessons without overwhelming the students or deviating from the core content. To navigate this challenge, pre-service teachers can engage in pedagogical discussions and reflections during their teacher education programs. They can explore research or literature on best practices for integrating multimodal texts and consider how it aligns with their teaching approaches and learning objectives. Seeking feedback from mentors, experienced teachers, or peers can also provide valuable insights and suggestions for improving the pedagogical integration of multimodal texts." (Respondent 12)

In summary, although multimodal texts provide various benefits for teachers, some still face challenges when using multimodal text in class, such as feeling confused when implementing them into the learning activities and they also face limited access to certain digital tools and instruments. Therefore, it affirms the need for additional training and support to help these future teachers navigate various instructional modalities in their educational settings.

Finally, the data confirm that the pre-service teachers perceive the potential to enhance multimodal texts in the microteaching classes, particularly facilitating material delivery, enhancing teaching effectiveness, and fostering digital media use in the classroom. However, implementing multimodal texts in educational settings is still less aware and informative to the pre-service teachers. There are still technical challenges faced by pre-service teachers when it comes to integrating multimodal texts effectively into digital applications. To optimize multimodal texts, teachers must receive practical training on implementing digital learning instruments during teaching sessions.

Discussion

Findings show that the pre-service teachers currently use five types of media: digital-based, visual presentation media, gamification of learning media, social media content, and conventional media. The main multimodal texts used by pre-service teachers are internet-based. Therefore, teachers in the current era must fulfill abilities that adapt to the needs of the era of students, where almost all of them are technologically literate. Many adolescents today are now growing up with the collection of interactive media called internet-based applications (Lin et al., 2015). Seeing these issues as pre-

service teachers who hold the next generation requires the same ability as the student's condition and needs.

Nevertheless, the data analysis shows that the multimodal texts still cannot eliminate the conventional media. For instance, some of the pre-service teachers still use printed worksheets as a tool for group assignments, individual assignments, pre-tests, and post-tests. The emphasis on language as a communication tool must have direct interaction, such as direct speaking practice or reading printed books, which will be different when reading e-books. The result is also in line with Kahne and Bowyer (2019), who stated that since most of these social skills are distinctly traditional, students still require traditional media to practice them in the classroom and communicate with others outside of it.

Furthermore, data presented in Figure 8 shows that multimodal texts have a positive effect on students' literacy. This case aligns with Eisenmann & Summer (2020), who found that multimodal texts in English Language Teaching (ELT) may help students build their critical literacy abilities. Working with multimodal narratives also help students better appreciate the meaning-making potential of various modalities, especially the interaction between words and visuals (Hadianto et al., 2021).

Moreover, investigations conducted by Avifah and Fajri (2022) also support the data results in Figure 9. The study perceived that the importance of EVP technology is to build the pre-service teachers' improvements in meeting classroom standards and current student needs (Avifah & Fajri, 2022). In this case, video production is also part of the multimodal texts (Peng, 2019). Additionally, Eisenmann and Summer (2020) found that multimodal texts have met students' needs in learning, especially reading. Javed and Odhabi's (2019) findings regarding using digital-based interactive media can change the shape of the traditional classroom atmosphere. On the student side, multimodal texts also stimulate students' digital literacy by presenting several modes of learning activities in class. Educators in the classroom are more likely to display verbal text, pictures, and other decorative tools to improve meaning-making processes for students (Fajriah et al., 2021). Therefore, multimodal texts can also develop students' literacy abilities in EFL classes (Hadianto et al., 2021).

In addition, two aspects of multimodal texts represent the characteristics of 21st-century teachers (Figure 10). Bedir (2019) examines more deeply the needs of teachers in the future to meet 21st-century standards. The findings showed that many pre-service teachers saw 21st-century learning and skills as including the use of technology in the classroom. The use of digital-based media in the classroom is also strongly encouraged in the current Indonesian Merdeka Curriculum, where teachers and students are encouraged to use technology-based learning approaches. In Figure 10, the pre-service teachers perceived the tendency to apply multimodal texts in their teaching practice as one of the characteristics of 21st-century teachers. This statement indicates that the pre-service teachers are optimistic about implementing multimodal texts in future classes.

However, pre-service teachers still need necessary provisional training to solve their issues and hindrance in aligning digital technology with classroom activities—significant number of pre-service teachers experienced difficulties (Figure 11) in implementing multimodal texts support this section's statement. Therefore, Bedir (2019) provides

advice that if standalone regular learning courses in the curriculum do not result in the integration of technology in the 21st century, professional development programs should be held. In this case, higher education institutions and the government might collaborate to develop standard course programs for the pre-service EFL teachers that prioritize training in digital technologies in classroom instruction to ensure their own digital literacy.

Conclusion

Due to the current digital era needs, future teachers must also obtain new standards to meet professional needs following the current condition. This research produced two main conclusions. First, the pre-service teachers mostly use five media types in micro-teaching classes: digital-based, visual presentation media, gamification of learning, social media content, and conventional media. Four of the five types of media are digital-based. Therefore, teachers in the future should increase the implementation of digital media in classroom learning. Second, multimodal texts can be a framework for pre-service teachers to meet class standards and their characteristics in the 21st century. Overall, the results indicate that the pre-service teachers perceive multimodal text integration positively, recognizing its potential to improve teaching effectiveness and engage students in modern learning contexts. Using multimodal texts, including pictures, videos, and interactive technology, has inspired creativity, enhanced critical thinking, and accommodated different learning styles. In this way, the pre-service teachers believe they are more ready to attend to the requirements of their prospective students and offer inclusive, participatory, and dynamic learning experiences by employing these new technologies. Despite the benefits, the research also identifies concerns among pre-service teachers. Concerns have primarily centered on the possible challenges of using well-targeted multimodal texts with appropriate technology. In addition, it is a challenge for teachers who still need clarification about certain technologies as media tools for classroom activities. Additionally, extra training and support for the pre-service teachers' professional development and classroom practice may be required to integrate multimodal texts fully. Finally, including multimodal texts in microteaching classes has potential implications for teacher education's future. Pre-service teachers may acquire adaptable teaching abilities by embracing multiple modes of communication, helping them to address the shifting requirements of 21st -century learners in an increasingly digital and connected environment.

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