

Exploring Innovation in the Development of Teaching Aids among Prospective Teachers for the Implementation of Assessment of Reading Skills

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Received: Oct. 23, 2023 Accepted: Dec. 26, 2023 Online published: Jan. 3, 2024

doi:10.5296/jpag.v13i4.21601

URL: <https://doi.org/10.5296/jpag.v13i4.21601>

Abstract

The use of teaching aids during the teaching and learning process (T&L) is very important for teachers to ensure that the delivery of information related to the subjects taught is more clear, systematic and can be followed by students better. Educators of the 21st century are advised to innovate in developing teaching aids to improve in the Malay language skills continuously as contained in the Malaysian Education Development Plan (PPPM) 2013-2025. The research question of this study is i) what kind of teaching aids are developed by prospective teachers in teaching and learning Malay language?, ii) what is the challenge of developing innovative teaching aids among prospective teachers for teaching and learning the Malay language, and iii) what are the skills of innovation in the development of teaching aids among prospective teachers for teaching and learning the Malay language?. The qualitative survey involved a total of seven prospective Malay Language teachers. The results of the study through interviews and observations found that the development of teaching aids showed that the participants have high skills and knowledge, the participants have creative and innovative skills by combining various materials, can move the T&L process more effectively in developing teaching aids for Malay language and Malay literature. The results of teaching aids innovations that they develop help students to easily understand the topics taught in class. The diversity in the selection of teaching aids in this study can be applied to other subjects in future studies.

Keywords: teaching aids, Malay language, innovation, reading skill, prospective teacher

1. Introduction

Teachers of the 21st century need to focus on the use of teaching aids in the classroom. According to Joseph (2015), teachers are great facilitators of knowledge and skills in the 21st century teaching and learning (T&L) profession. The purpose of teachers using teaching aids is to enhance classroom instruction, extract learner's attention and create a motivation to learn. The use of teaching aids can help achieve T&L objectives more effectively and can create a sense of fun learning in students. There are various types of teaching aids including audio-visual materials, printed and non-printed materials, electronic and non-electronic materials and digital media. For example, charts, cartoons, flannel boards, pictures, giant books, maps and so on. Along with 21st century education, digital media material has taken its place among teachers to deliver T&L in a more meaningful manner.

Furthermore, a teaching aids is an effective way to organize learning and unite both the teacher's and learner's efforts. It is important that teachers are creative and professionally developed to use and combine these teaching aids (Uchechi, 2021). Such as short videos, films and movies becomes authentic material that the teacher can use to teach language skills in the classroom (Mohamed et al., 2021). In addition, mastering 21st century skills which are critical thinking and problem solving, creativity, communication, and collaboration (4C skills) need to be integrated into learning to ensure graduate work readiness and it seems essential to develop a teaching aids that accommodates these various things (Utami et al., 2022). However, the selection of teaching aids depends on competence of teachers, level of student achievement and time allocate. It is crucial that the teachers must ensure that the use of teaching aid meets the students' individual need (Block, 1991).

The transformation of education in Malaysia which is centered on examinations has shifted towards holistic assessment practices that take into account the application of values and become the core of prosperous human development in line with the aspirations of the National Education Philosophy (FPK). In this regard, teachers need to make initial preparations that include planning teaching delivery methods and the use of teaching aid so that T&L can help understanding and attract students learning interests. Teachers should enhance their knowledge and skills by mastering educational pedagogy through strategic thinking. There are various benefits to teachers who prepare teaching aid on a topic that will be presented in the classroom.

The Ministry of Education (MOE) has also advised teachers to create innovations in teaching aid in line with WAVE 3 (2021-2025)-moving towards excellence through increased operational flexibility, increasing innovation and options to improve skills in the Malay language continuously contained in the Malaysian Education Development Plan (PPPM) 2013-2025. This is also in line with the efforts of the 17 Sustainable Development Goals established by the United Nations in 2015 among which is Sustainable Development Goal 4 (SDG 4) on the quality of education "ensuring inclusive and equitable quality education and promoting life-long learning opportunities for all". Therefore, every student in school should be given educational opportunities by emphasizing the aspects of a comfortable, quality and accessible environment as outlined in SDG 4. This is also in line with 21st century learning

which also emphasizes the construction of teaching aids among teachers.

Furthermore, this study leads to the use of teaching aid in the course LHE3105-Teaching Reading Skills Course. It aims to analyze the improvement of the understanding of prospective Malay Language teachers and train them to think critically through the use of teaching aid from various materials and resources that are appropriate to the subject of Malay language, namely language skills and Malay literature. After the teaching aids are provided by the prospective teachers, they will teach reading skills in their classroom to see the extent of feedback and the effectiveness of the use of teaching aids innovation. Therefore, it is very important that this study is carried out so that teachers realize that the use of teaching aid is crucial during the T&L process.

This study was conducted to achieve the following research questions:

1. What kind of teaching aids are developed by prospective teachers in teaching and learning Malay language?
2. What is the challenge of developing innovative teaching aids among prospective teachers for teaching and learning the Malay language?
3. What are the skills of innovation in the development of teaching aids among prospective teachers for teaching and learning the Malay language?

2. Literature Review

Creating a teaching aids is not easy because it requires wisdom, skill, and high creativity among teachers. Elements of innovation in the development of teaching aid should be applied because teaching aids can stimulate students to continue, learn and maintain interest in learning. Esah (2004) states that teachers need to be wise in choosing methods, approaches, techniques and attractive material because it is able to develop the potential and talents of students. A study conducted by Bukoye (2019) using a survey method of over 100 respondents from five selected schools found that most teachers do not use teaching aids in teaching. Okori and Jerry (2017) in their research findings proved that the teachers, government and all stakeholders in Education should provide and supply to all secondary schools in the state adequate and relevant resource materials for the teaching and learning of science and mathematics.

This is because teachers are less efficient and not skilled in choosing and building teaching aids. Meanwhile, the Kija and Msangya (2019) study also stated that there were teachers who thought that the use of teaching aids in the classroom slowed down the T&L process because the thing they prioritized was finishing the subject syllabus. Irma et al. (2016) also stated that Arabic teachers need to diversify the teaching aids so that students can master the language more effectively and not only use textbooks and dictionaries.

Therefore, the use of teaching aids is very important so that T&L objectives can be achieved while producing an active classroom environment. Past studies have shown that active involvement among students during T&L is a boost from the use of teaching aids provided by teachers. The provision and use of teaching aids to students proves that it can improve

learning development. Teaching aids used in the classroom can improve learning performance while the lessons delivered by teachers are more concrete (Ainsworth & Scheiter 2021; Guo et al., 2020). There is no doubt that the use of teaching aids promotes an active learning process among students.

2.1 Current Study in Malaysia

Studies related to teaching aids have been conducted by many researchers, especially subjects taught by teachers in schools. However, studies related to the construction of teaching aids innovations among prospective Malay Language teachers are still lacking attention and need to be expanded from time to time in accordance with the development of 21st century education. The development of a teaching aids innovation is very important to ensure that the T&L objectives on a topic to be conveyed to students are achieved. Therefore, students or prospective teachers who take the field of teaching, especially in the field of Malay language education should learn, master, and have high skills to develop teaching aid before they become teachers either in primary or secondary schools. Disclosure of knowledge about the development of teaching aids innovation from the early stage of study of prospective teachers either in Teacher Education Institutions and public universities is very important because there are many benefits of the use of teaching aids innovation in the classroom.

A study conducted by Jeffery (2018) involving 117 teachers of Malay language subjects in the Serian district as a sample study found that Malay Language teachers in primary schools have a positive attitude towards the selection of material teaching aids. This finding supported by Rabaah et al., (2021) stated that there was an increase in the level of understanding and knowledge of students towards the use of video-based teaching aids, articles and PowerPoint slides to attract students' interest and attention to form critical thinking in learning.

A study conducted by Kamarudin et al., (2022) using a case study of five teachers of special learning education teaching mathematics subjects from several schools in Pudu district, Kuala Lumpur showed that the practice of teachers in the use of teaching aids affect the improvement in mathematical skills of multiplication operations. Teachers practice in readiness before the start of the T&L session. Teaching aid as a facilitator, identifying the level of mastery and the type of teaching aid used is a factor that can improve the mathematical skills of multiplication operations for students, especially students with special learning needs. The use of interesting and creative teaching aid can attract students with special learning needs in mastering mathematics, especially in multiplication operations. According to Yusuf et al. (2023), implications of JOBA Kit teaching aids successfully helps improve reading proficiency among 20 special needs students. This finding supports the findings of Bakthaselvan et al. (2022) that there is a need to develop interactive teaching aids for learning to write Malay essays. The integration of interactive multimedia in the E-BMKU essay module is able to attract students to learn Malay essay writing skills.

The education system in our country is evolving and changing from time to time along with the development of the era of educational technology. Therefore, traditional learning should shift towards the use of media technology in line with the interests and tendencies of

generation Z students.

3. Methodology

This study applied the qualitative method to answer the objectives of the study related to teaching aids construction innovation among the participants of the fourth semester of The Bachelor of Malay Language Education with Honors (BPBMdK) and its use when implementing the reading skills teaching community program to meet the LHE3105-Teaching Reading Skills Course. The researchers collected data using interviews and observations. The observation method was carried out during reading skills activities conducted by students in one of the districts in Selangor.

This study aims to see the use of teaching aids directly when the study participants control the teaching of reading skills involving fourth semester students. Through the interview and observation method, it allows researchers to triangulate the information obtained and closely observe the use of teaching aids by the participants during the T&L process.

3.1 Participants and Procedures

In the context of this study, the selection of participants based on sampling is intended to meet the criteria and have information as stipulated in the study (Sufean & Ghazali, 2016). The participants for the study were purposefully sampled. The researcher ensures that the involvement of participants is voluntary, easy to contact, willing to participate, provide accurate information and as much as possible related to the subject matter studied by the researcher. Table 1 below shows information about the participants.

Table 1. Participant profile

Participants (P)	Age	Gender	Semester	Program
P01	21	Female	4	BPBMdK
P02	22	Female	4	BPBMdK
P03	22	Female	4	BPBMdK
P04	21	Male	4	BPBMdK
P05	23	Male	4	BPBMdK
P06	22	Female	4	BPBMdK
P07	22	Female	4	BPBMdK

A total of seven participants was involved in the study for data collection purposes, which include the students of the fourth semester of The Bachelor of Malay Language Education

with Honors (BPBMdK) who took the course LHE3104-Selection of Language and Literature Teaching Materials.

3.2 Interview

The researcher used semi-structured interviews for the purpose of information gathering from the participants. The researcher first prepares and consistently compiles semi-structural questions. Additional questions were made with the aim of obtaining additional information in more depth if the answers given by the participants were unclear or if the answers provided to the questions asked by the researcher were very brief.

3.3 Observations

Observations were made to collect additional information in support of the data that has been obtained through interviews with participants. In the context of this study, researchers have looked at the T&L process as well as the practice of assessment of reading skills implemented by the participants to form three students.

As an additional information to support the interview and observation data, the researchers used document analysis such as reinforcement exercises, interactive materials, and learning photographs.

4. Findings

The analysis of data was driven by the research questions in this study. The data were analysed thematically and using qualitative software ATLAS.ti. Analysis of the findings found four themes: 1) teaching aids developed by prospective teachers in T&L the Malay Language; 2) challenges of developing teaching aids innovation among prospective teachers for T&L the Malay language; 3) skills of innovation in the development of teaching aids among prospective teachers for T&L the Malay language; and 4) effectiveness of using innovative teaching aids in T&L the Malay language.

4.1 Teaching Aids Used by Teachers

The results of interviews and observations in the classroom with the participants showed that they developed various types of teaching aids innovations for classroom use. The use of teaching aids innovation among participants proved to have positive effects among students. Students show active participation in the learning process. Indirectly, this improves motivation and interest to continue learning with the use of various types of teaching aids provided by prospective teachers. Table 2 shows the different types of teaching aids developed by the participants.

Table 2. Types of teaching aids

Participant (P)	Types of Teaching Aids	Name of Teaching Aids
P01	Electronic materials	ViSa (<i>Video Bahasa</i>)

P02	Electronic and non-electronic materials	Buku Gergasi Grafik 3D
P03	Electronic and non-electronic materials	KoPro (<i>Komik Prosa</i>)
P04	Electronic materials	PaCePer (<i>Papan Cerita Peribahasa</i>)
P05	Non-electronic materials	KotDeRi (<i>Kotak Deria Misteri</i>)
P06	Electronic and non-electronic materials	Papan Magnetik (<i>PaTik</i>)
P07	Non-electronic materials	Gambar Gergasi Telefik

The findings showed that the participants had provided teaching aids consisting of electronic and non-electronic materials. A total of two participants developed teaching aids in the form of electronic materials, three people developed electronic and non-electronic materials, and two participants provided non-electronic materials. The development of teaching aids clearly shows that the participants have the skills to think creatively and innovatively. The following are quotes from P01 and P02, stating the types of teaching aids that have been developed for the T&L Malay language:

The type of teaching aids innovation that I produced is in the form of electronic media, namely video. [P01]

I included elements of language games as a strengthening activity for students, QR code scans that can bring students closer to technology and voice recorders that also provide direct experience to students to feel how to pronounce 'pantun'. The size of the book produced is larger than usual and attractive design with the use of colorful colors as well as graphics or drawings that are in accordance with the theme of learning. [P02]

The summary of the findings above proves that the selection of teaching aids types developed by the participants consisted of electronic and non-electronic materials. In fact, some of the participants combined both electronic and non-electronic materials for the preparation of teaching aids. This shows that the participants were able to choose and adjust the teaching aids with the experience and knowledge of students related to learning topics. Similarly, both P06 and P07 chose to use electronic and non-electronic materials as teaching aids:

The type of teaching aids innovation that I developed is electronic materials and also non-electronic materials. This is because I combined media materials and non-media materials. [P06]

My teaching aids is a giant picture called 'Telefik', that is, graphic television. Therefore, through the giant picture I have combined two elements of art and culture, namely

traditional games and dance. [P07]

This finding indicates that the participants have high skills and knowledge in providing teaching aids. The creativity and innovation by combining various materials can move the T&L process more effectively.

4.2 Challenges in Developing Innovative Teaching Aids

The findings obtained by the researchers during interviews and observations in the practice room indicate that there is no doubt that at this stage they face difficulties and constraints to form the planned teaching aids. The researchers found that the participants had ideas that could be considered creative when combining various resources such as digital applications, videos and tangible materials. However, they face the challenge of designing the teaching aids that they wanted to develop as planned at the initial stage. The participants went through a process of designing, modifying, adjusting and re-matching teaching aids based on the selected source or material. This process allows them to build a more robust and appropriate teaching aids with language skills to use during T&L. See the statements given by the participants below:

In the early stages of teaching aids development, I have encountered some difficulties such as the selection of a suitable application for building a video. Initially, I planned to use the 'Zepeto' application but there was a slight drawback in using the application because there were no elements that fit the learning topic. Then I came across a more interesting app called 'Plotagon'. In this application, I can choose elements that match the learning topic such as the character of the doctor, the background of the hospital and so on. In addition, the difficulty of choosing a suitable storyline. I have created several storylines that match the learning topics and elements provided in the application. [P01]

It was difficult for me to develop it because it requires a variety of sources on the Internet as a reference for inspiration given that teaching aids Giant Book less developed by teachers and lack of resources. I also need to include the appropriate innovation elements in the teaching aids so that it has differences and differences from other teaching aids. [P02]

P03 also stated that it is difficult in the early stages of planning to choose the right material to provide teaching aids based on the topic to be taught:

In the early stages of teaching aids development, it was very difficult for me to make the selection, adaptation, and application of teaching aids innovations that fit the learning topic because of the lack of ideas to determine the type of teaching aids to be developed. When creating the teaching aids selection, I had a few ideas that could be used but were poorly suited to the topic. In the beginning, I wanted to make a comic about drama but thought that drama was easy for pupils to understand. Therefore, I decided to build a comic entitled 'Hang Tuah sent to Siam' because I was convinced that today's students are less fond of reading about traditional prose. In the early stages of construction, I wanted to build the comic using A4 size but when I think about it, the size is not suitable for use in the classroom because students can not see from afar. So I acted to change the

size of our comics to A3 size because that size is bigger and easier to use in the classroom. [P03]

P03 admitted that she lacked the idea to design comics for drama topics to meet the teaching of literature. P03 also noticed that the students were not interested in studying literature because they thought it was difficult to understand the literature text and found it very boring. P04 added that teachers may find it difficult to design teaching aid suitable for teaching and learning:

In the early stages, it was quite difficult to develop a digital storyboard. That's why I need to find a good app to build a storyboard. However, most of the applications that have been found are paid. Even though it is a free application, it is limited in use. The next difficulty is, I have to explore the application first before using it. [P04]

It is clear that P04 is a creative prospective teacher and has a high innovation power to prepare digital storyboards. According to P04, designing digital storyboard is not an easy task because it is necessary to explore in advance suitable applications that have never been used before. This was also seen in the classroom observation where P04 said there are a lot of existing apps, but require high fee to use them. Despite this, P04 found a digital application that is free but it takes time to learn and master the application before creating a digital storyboard to teach language skills in the classroom. This ensures that the learning topics can be conveyed effectively and achieve T&L objectives.

The findings indicated that all seven participants felt that it is not easy to design a teaching aids for the teaching of Malay language and literature skills in the classroom. All participants acknowledged that they needed a creative idea to associate learning topics with teaching aids so that the T&L process achieves the objectives as planned by the teacher. There is no doubt that, although it was difficult to prepare teaching aids, the participants were wise in planning the material provided by combining several elements in conjunction with the topic to be taught. They also agreed that teaching aids can increase understanding and attract students to participate and commit more actively during learning sessions.

4.3 Teachers Skills and Knowledge Innovation Development Teaching Aids

The interview and observation findings demonstrate that the participants have creative and innovative skills as well as high knowledge in developing teaching aids for T&L in Malay language and Malay literature. This study data meets the requirements of the Ministry of Education (MOE) Malaysia that teachers should create innovations in teaching aids in line with the Malaysian Education Development Plan (PPPM) 2013-2025.

The findings prove that teachers have a clear understanding that innovation in teaching aids involves modification and improvement of the production of better materials. They explained that they had combined several elements such as videos, self-acting, interactive materials in order to produce more quality teaching aids and attract students to continue learning. As P06 and P07 stated, teaching aids innovation need materials from original and unique ideas after making improvements by combining electronic materials with non-electronic materials in accordance with 21st century learning. This was evident in the classroom observations when

students show excitement and active involvement while using the teaching aids provided.

In my opinion, the existing teaching aids needs to be improved to attract students to participate in the T&L session. For example, I have added new features to magnetic boards such as generating two-sided view images and combining them with electronic materials or media materials. [P06]

Teaching aids innovation is a reform in the education system developed by a teacher by inserting elements of media and technology to create effective learning in addition to attracting students to the learning topics to be presented. Through innovation, teachers will also become more critical and creative in shaping the new generation. [P07]

4.4 The Effectiveness Use of Innovative Teaching Aids

The findings show that the use of teaching aids innovation has a positive impact on the T&L process, especially for students. The teaching aids innovations help students to easily understand the topics taught in class. All participants stated that the effectiveness of the use of teaching aids that have been used in the classroom shows that teaching aids can attract students to follow learning content with more active involvement.

The effectiveness and importance of teaching aids innovation throughout my observation is to improve student focus and attention. Students are excited when they see changes and other elements that the teacher brings to the classroom rather than the usual. They are also interested because the teaching aids produced is in the form of technology because it is close to them. As a result, students not only feel attracted to the teaching aids produced, but students are easier to understand the learning topics that the teacher wants to convey. [P01]

Teaching aids is effective because students show a high interest in the use of teaching aids so that they can generate ideas well. In addition, the teaching aids also helped me as a prospective teacher to achieve the objectives set by DSKP. The use of teaching aids also forms an interesting and conducive learning environment because students have a stimulus in expressing their opinions. [P02]

P03 admitted that using teaching aids innovation helps students understand learning more effectively while being able to appreciate the characters in comics with more meaning. The participant noticed that the students were less interested in Malay literature because they found it difficult to understand. Therefore, the steps taken by P03 by building comics that use attractive colors and pictures drawn by the participants themselves can create a two-way interaction between teachers and students. See the following statement is given by P03:

Throughout my experience and observations, the use of comic teaching aids in the T&L process can provide an opportunity for students to understand more deeply the content of learning in more detail. The use of colorful pictures, as well as sentences in the form of ordinary but simple conversations not only attract the attention of students, but also can facilitate and accelerate their understanding. When reading comics, students can follow the story and understand the intent. If students don't know how to read, they can refer to

pictures to help them understand. The A3 size comics and the installation of iron hoops on the edges of the comics are clearly able to make it easier for all teachers to bring it to class when they want to use it. This comic innovation can create two-way interaction between teachers and students in the classroom during the learning process. Comics can provide encouragement and high motivation to students in the learning process. When the student asks the teacher a question about the content of the comic, the student is seen to be able to understand it well. For example, nowadays students are less interested in reading the literary component because literature is said to be quite bored because it uses the language of antiquity. Therefore, the teacher can make it as a comic so that students are interested in understanding the literary work. [P03]

Based on the statement by P05, the participants know that the use of teaching aids in the classroom promotes learning domains that include cognitive domains and affective domains among students. The psychomotor domain gives students the opportunity to touch, feel, and experience their own using teaching aids while studying. This will contribute to the improvement of learning through mastery of Malay language skills.

Throughout the experience and observation in T&L, the use of teaching aids is effective because the students are so fun and can answer questions well during T&L. The resulting innovation is important because it can stimulate students sense of touch and foster group spirit. [P05]

P07 summarised her or his perception regarding the effectiveness use of innovative teaching aids as:

The innovation provided by teaching aids has improved students understanding of the types of sentences. A variety of activities from various levels of difficulty that we provide are able to reinforce their knowledge of the topics studied. When we ask them questions, they respond well. Therefore, learning in the classroom using teaching aids developed has provided high effectiveness on the level of student mastery. [P07]

P07 described that by using teaching aids, students can improve their understanding of sentence types. This was evident in the classroom observations where student were able to give good answers, such as his statement “When we ask them questions, they respond well.”

Overall, the study showed that the participants realized that the use of teaching aids innovation is very important and has a positive impact because it can stimulate interest and active involvement among students in the classroom. In addition, it can increase motivation to continue learning considering that teachers bring material that they have never seen and used before. At the same time, teachers themselves can improve the effectiveness of teaching by implementing improvements in future lesson planning.

5. Discussion

This study demonstrated that a group of seven participants, who are bachelor students in Malay language education, have high creativity and innovation in designing their own teaching aids innovation. The findings showed that the participants had provided teaching

aids consisting of electronic and non-electronic materials. The use of teaching aids innovation for the implementation of reading skills learning in a classroom setting, as implemented by all participants, proved that it has a positive impact on learning objectives. This is consistent with the 21st century learning, which emphasizes on building teaching aids that can fulfil three skills, namely: learning skills and innovation; information, media and technology skills in turn; life and career skills.

The data obtained in this study shows that there is an increase in the understanding and knowledge of participants through the use of teaching aids in T&L, as well as the involvement of active and focused students. This supports studies by Ainsworth and Scheiter (2021) and Guo et al. (2020), which highlight the positive effects of teaching aids in improving the effectiveness and concreteness of teaching strategies as well as the comprehension and involvement of students with the learning materials and their overall learning performance. Classroom teaching becomes much more interesting and impactful with the use of teaching aids, especially as it fulfills the growing trend of digital use in knowledge sharing.

In terms of teaching Malay literature, the findings suggest that teachers need to put extra efforts to think of the strategies in developing a suitable teaching aids to make sure the effectiveness of their teaching and learning session. This concurred with Rabaah et al.'s (2021) study that found increased understanding and knowledge among students with the use of electronic teaching aids. The findings also respond to Irma et al.'s (2016) study among teachers teaching Arabic language, in which the authors suggest the positive impact of varying teaching methods outside of only conventional methods in helping students understand and master language more effectively. Existing evidence has shown how teaching aids can be beneficial to both teachers and students; thus, teachers must be informed, smart, and take proactive steps so that issues of boredom and disinterest in Malay literature do not persist among students in school.

6. Conclusion

This study was aimed to explore innovations in the development of teaching aids among prospective teachers for the implementation of assessment of reading skills. It demonstrates the participants using a variety types of teaching aids such as electronic and non-electronic material. Through interview responses, four main themes were identified that describe the use of teaching aids among prospective teachers and the challenges, skills, and effectiveness of developing and using these tools. The findings prove the use of teaching aids as important in producing T&L that achieve the learning objectives set by the teacher. The use of teaching aids in the classroom can improve students' critical thinking and active involvement because the materials used can stimulate students' psychomotor movements to experience themselves directly. Therefore, with further improvements in the future, the use of teaching aids described in this study can be proposed to be applied to other subjects as appropriate.

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