



Increasing English teachers' innovation through training on teaching modules development with digital technology integration

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ARTICLE INFO	ABSTRACT
<p>Article history Received: 2023-07-03 Revised: 2023-07-24 Accepted: 2023-08-14 Published: 2023-09-09</p> <p>Keywords EdPuzzle English Teaching modules Technology integration</p>	<p><i>In order to achieve quality learning in accordance with the aspirations and the fourth goal of SDGs, teachers need to create learning that is complete and in accordance with the needs of students. This complete and appropriate learning can be demonstrated by the teaching modules used by the teacher. In fact, teachers still encounter problems in compiling teaching modules that suit the needs of students in the current era of digital technology. This obstacle is also experienced by high school English teachers in Sidoarjo. One of the challenges is the lack of innovation in using and implementing information and technology-based English learning media. Therefore, with this community service, the authors aim to increase the high school English teachers' innovation through training on teaching module development with EdPuzzle integration. The success of this program was measured from a questionnaire filled out by the teachers. As a result, teachers who previously did not know what EdPuzzle was were finally able to create and implement it in class. They argue that digital media such as EdPuzzle is very useful for teaching and learning English. Thus, this community service has been carried out properly and succeeded in achieving the planned goals.</i></p>
<p>Kata Kunci Bahasa Inggris EdPuzzle Integrasi teknologi Modul ajar</p>	<p>Peningkatan kemampuan inovasi guru melalui pelatihan pengembangan modul ajar dengan integrasi teknologi digital. Untuk mencapai pembelajaran yang berkualitas sesuai dengan aspirasi dan tujuan keempat SDGs, guru perlu menciptakan pembelajaran yang tuntas dan sesuai dengan kebutuhan siswa. Pembelajaran yang lengkap dan tepat tersebut dapat ditunjukkan melalui modul pengajaran yang digunakan guru. Faktanya, guru masih menemui kendala dalam menyusun modul pengajaran yang sesuai dengan kebutuhan siswa di era teknologi digital saat ini. Kendala ini juga dialami oleh guru bahasa Inggris SMA di Sidoarjo. Salah satu tantangannya adalah kurangnya inovasi dalam penggunaan dan penerapan media pembelajaran bahasa Inggris berbasis informasi dan teknologi. Oleh karena itu, dengan pengabdian masyarakat ini, penulis bertujuan untuk meningkatkan inovasi guru bahasa Inggris SMA melalui pelatihan pengembangan modul pengajaran dengan integrasi EdPuzzle. Keberhasilan program ini diukur dari angket yang diisi oleh para guru. Alhasil, para guru yang sebelumnya tidak mengetahui apa itu EdPuzzle, akhirnya bisa membuat dan mengimplementasikannya di kelas. Mereka berpendapat bahwa media digital seperti EdPuzzle sangat berguna untuk belajar mengajar bahasa Inggris. Dengan demikian, pengabdian kepada masyarakat ini telah terlaksana dengan baik dan berhasil mencapai tujuan yang direncanakan.</p> <p style="text-align: right;">Copyright © 2023, Astutik, et al., This is an open access article under the CC-BY-SA</p> <div style="text-align: right;">  </div>

How to cite: Astutik, Y., Agustina, S., Megawati, F., Anggraini, R. (2023). Increasing English teachers' innovation through training on teaching modules development with digital technology integration. *Journal of Community Service and Empowerment*, 4(3), 459-466. <https://doi.org/10.22219/jcse.v4i3.27579>

INTRODUCTION

It cannot be denied that education is a basic human need. In this era, education is the spearhead to prepare the younger generation to become a generation that is ready to face all the problems in the future. In general, education's functions and objectives include developing students' potential through increasing knowledge and thinking skills, interests, and attitudes, as well as motor skills to form students into knowledgeable, moral, and responsible citizens (Michael Adam, 2020; Moran, 2018). Thus, it is hoped that the series of education in Indonesia will be able to meet the needs of these students. Through education, people carry out cultural transformations, create workforces, create tools of social control, and so on (Sujana, 2019).

In order to realize the ideals of education, the Indonesian government designed a curriculum to direct education toward the desired direction and goals in learning activities as a whole. The curriculum is a design and framework that contains learning objectives, competencies, materials, and learning assessments which are the reference for education providers to determine the implementation of learning outcomes (Habiburrahim, 2021). This curriculum will later be developed by the teacher into another written form that will be used as a learning guide in class or called a teaching module. However, several previous curricula designed by the government were considered unable to accommodate the needs of students who had varied backgrounds.

In the previous curriculum, namely Kurikulum 2013 (K13), learning activities were centered on learning outcomes. It makes many students burdened because of the large amount of material that must be mastered. The Minister of Education conveyed several weaknesses of Kurikulum 2013, including very dense material, limited study time, less flexible learning, and inaccuracies in the assessment process (Lestari, 2023; Mutmainna et al., 2022). Therefore, since February 2022, the government has introduced a new Kurikulum Merdeka curriculum. This curriculum aims to accommodate the needs of students to get an education according to the potential of each student without burdening them with an imbalance between material and study time (Pratikno et al., 2022).

The birth of Kurikulum Merdeka is believed to be able to answer strategic issues about multiple intelligences that each student has. The theory of multiple intelligences states that every child is born with various intelligence potentials, and these potentials have an effect on the learning success of individuals (Lei et al., 2021; Pratiwi et al., 2018; Shearer, 2018). In relation to Kurikulum Merdeka, it is then emphasized that this curriculum offers freedom to students to explore their talents and interests further (Rahayu et al., 2022).

Kurikulum Merdeka has several advantages over the previous curriculum (Fahmi et al., 2022; Kurniawan et al., 2022), one of which is a subject matter that is more relevant and concise. The policy for implementing learning is not centralized, meaning that schools are given the flexibility to manage the curriculum according to the character of students. In addition, the curriculum also provides opportunities for students to develop themselves referring to the character of Pancasila students. Therefore, Kurikulum Merdeka is considered good enough to be implemented in school learning.

One form of implementing Kurikulum Merdeka is differentiated learning. Differentiated learning is learning that aims to meet the different needs of students through different learning experiences (Astuti & Afendi, 2022; Pozas et al., 2021; Sahril et al., 2021). Differentiated learning includes differences in material content, differences in learning processes, and differences in learning outcomes. The characteristics of differentiated learning are that the teacher conducts a diagnostic test before the start of learning to measure students' interests and talents. After that, the teacher adjusts the material, media, and methods based on the results of the pre-learning assessment. Here, the teacher will provide learning activities that are varied, tiered and tend to be individual or small group for students. Furthermore, to evaluate student learning outcomes, teachers apply project-based learning products, where students can present their learning outcomes in any form according to their potential. As a result, a student will experience a different learning experience from other students. However, in reality, there are several problems in implementing differentiated learning.

Some of the obstacles in the implementation of differentiated learning include the lack of references for teachers to make teaching modules that suit the needs of each student and the lack of teacher readiness to develop authentic and interactive learning innovations (Al & Abutayeh, 2022; Gibbs, 2022; Grecu, 2022; Manivannan & Nor, 2020). Another obstacle to implementing a new curriculum is the teacher's limitations in using information and technology-based learning media which can eventually lead to a decrease in teachers' teaching performance

With the existence of technology, teachers should be expected to be more advanced in mastering and presenting learning through digital media. With the help of digital media, students can access a lot of information as a learning support. Students can also take advantage of technology to work on questions and absorb the material in a more enjoyable way (Abu Bakar & Khalid, 2021). Therefore, teachers' digital literacy needs to be increased from time to time to keep up with the needs in the field. Teachers' adaptability also needs to be strengthened so that teachers can be open and selective when accepting existing changes for the progress of students, one of which is using information and technology-based learning media optimally.

In this community service program, the authors found similar problems faced by teachers. Based on brief interviews and observations with the potential target community, the many obstacles in implementing the new curriculum were also experienced by English teachers at the senior high school level in Sidoarjo. The teachers have problems related to

the implementation of a differentiated curriculum, especially in developing teaching modules that are integrated with innovative learning media. Challenges faced by the teachers include the lack of skills in developing teaching materials that are relevant and interactive to facilitate students and the lack of innovation in using and implementing technology-based English learning media for learning at the high school level.

Several community services have been carried out to improve teachers' abilities in developing teaching modules (Araiku et al., 2021; Choiriyah et al., 2022), teaching modules with differentiated learning content (Maulana et al., 2023; Mukhlisina et al., 2023), as well as teaching modules with technology integration (ARFA et al., 2022; Basuki et al., 2022; Bentri et al., 2019; Qadriani et al., 2021). However, almost none focused on teaching modules with EdPuzzle integration specifically for high school English teachers. In fact, there are many benefits from the EdPuzzle application that can be obtained by high school English teachers.

Edpuzzle allows teachers to improve the way students use online videos for learning. It also enables teachers to check that pupils have seen the entire session and assess their comprehension of the material. After taking embedded quizzes, students who used Edpuzzle were better able to concentrate on the key elements of the videos and were more secure about their understanding (Mischel, 2018). Additionally, EdPuzzle learning is extremely successful for online learning and statistically quite important in enhancing students' problem-solving abilities (Giyanto et al., 2020).

Referring to the analysis of the situation faced by high school English teachers in Sidoarjo, and in order to realize the fourth goal of SDGs, namely quality education, the authors are interested in facilitating training and mentoring through a community service program that aims to increase the high school English teachers' innovation through training on teaching module development with digital technology integration. On this occasion, the authors propose the use of EdPuzzle in English teaching and learning.

METHOD

The object or target community of this community service is the high school English subject teachers in Sidoarjo who are affiliated with an English teacher working group called Musyawarah Guru Mata Pelajaran (MGMP) in Sidoarjo. MGMP is a forum that facilitates the gathering of English subject teachers to develop work professionalism. In implementing the community service program, MGMP contributes to mobilizing their members, in this case, teachers, to become participants and fully participate in workshops, training, and mentoring activities. During the community service program, as many as 43 teachers took part in the series of activities.

In implementing the community service program, there are several stages of activities carried out by the authors to overcome partner problems. In the preparatory stage, the service team establishes contact with the target community, identifies the problems and coordinates plans for workshops, training, and mentoring activities. The service team communicated with the representatives of the community to agree on a schedule and location for the workshop. After that, the service team prepares materials and other equipment to support the workshop.

At the implementation stage, the service team will carry out workshop activities followed by training and mentoring. Overall, the workshop activities aim to provide theoretical material regarding differentiated curricula, teaching modules, and IT-based learning media to the teachers. In training activities, partners will be given the opportunity to independently design teaching modules and media based on workshop material. Furthermore, in mentoring activities, the teachers will use teaching modules that have been prepared to convey material to students in class.

Finally, at the evaluation stage, the service team will also distribute questionnaires to the teachers containing the satisfaction and success of learning after applying the pre-designed teaching modules and media. The results of the questionnaire distribution will be interpreted and rewritten into activity results reports. Thus, the success of this community service program was measured through a survey using a questionnaire distributed after the program was completed. The questionnaire itself contains several closed and open questions which are expected to be able to explore teachers' opinions and perceptions of the use of EdPuzzle in learning English in class.

RESULTS AND DISCUSSION

After completing the community service program, the following is an analysis of the results of the activities obtained from interpreting the questionnaire contents by the English teachers. First, the MGMP English teachers who attended the workshops and training came from various public and private high schools in Sidoarjo (Figure 1). These teachers teach senior high school students at various levels of educational units and with varying lengths of teaching experience. Some teachers have teaching experience for 3 years, and some others have teaching experience for more than 20 years.

After going through a series of community service programs, these teachers benefited from making teaching modules based on differentiated learning with the integration of EdPuzzle as a source and learning media. Comparison of the use of EdPuzzle before the program and after the program is shown in Table 1.



Figure 1. Workshop on Developing Teaching Modules and Integrating Technology

Table 1. Comparison of the Use of EdPuzzle in Teaching and Learning

No.	Aspect	Number of participants (out of 43)	
		Before the Program	After the Program
1	Understanding EdPuzzle and its features	4	43
2	Using EdPuzzle	2	41
3	Implementing Edpuzzle in classrooms	2	41

Based on Table 1, it can be seen that the number of participants who were finally able to understand, use, and apply Edpuzzle in classroom learning increased very significantly. Initially, only 4 out of 43 teachers, or 9% of participants, knew about EdPuzzle and its features. Meanwhile, of the 4 teachers, only 2 had actually created and utilized EdPuzzle in classroom learning. On the other hand, after receiving materials and training about Edpuzzle, all participants understood what EdPuzzle was and its features. However, of all the participants who knew about Edpuzzle, 41 of them, or 95% of the participants, were finally able to use and apply it as a medium and learning resource for their students. They also argue that EdPuzzle is quite effective during learning (Figure 2).

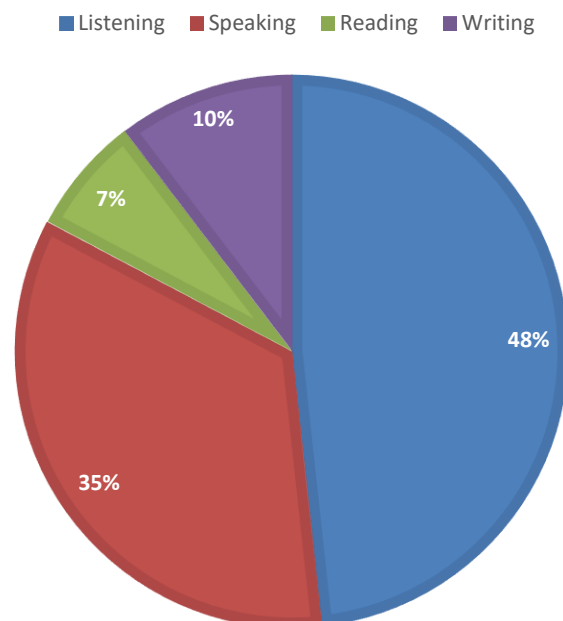


Figure 2. The Effectiveness of Edpuzzle for English Language Skills

From Figure 2 above, it can be seen that the participants saw the use of EdPuzzle in learning English as very effective. Going deeper, opinions regarding the effectiveness of EdPuzzle based on language skills vary quite a bit. The majority of participants, or 48% of them, thought that EdPuzzle was most effectively used in learning that focused on students' listening skills. 35% of participants thought that Edpuzzle was suitable for honing speaking skills. Meanwhile, a small number of participants thought that EdPuzzle was also suitable for use in improving writing and reading skills. In addition, the participants also spoke about the usefulness of EdPuzzle to support the increase in digital literacy of teachers and students. According to the results of the questionnaire, all participants agreed that the use of EdPuzzle during English learning in the classroom was able to improve digital literacy skills in teachers and students. Not only did they agree, but the participants also described the role of technology-based learning media, such as EdPuzzle, in the implementation of Kurikulum Merdeka (Figure 3).

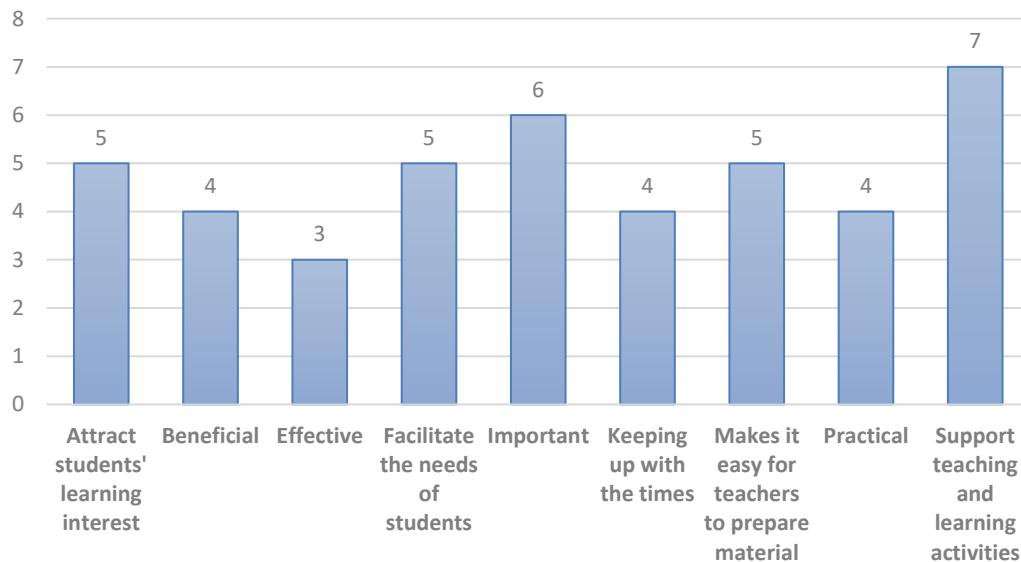


Figure 3. The Role of Technology-based Media in the Implementation of Kurikulum Merdeka

Figure 3 above illustrates the participants' statements when asked to describe the role of technology-based learning media in a few words. As a result, as many as 7 participants stated that technology-based learning media was able to help teachers in the process of teaching and learning activities. 6 participants considered it important. Each of the other 5 participants revealed that the media was able to attract students' interest in learning, facilitate student needs, and make it easier for teachers to prepare lessons. Meanwhile, other participants described the role of technology-based learning media as something beneficial, important, and practical. In fact, some participants said that the use of media like that encourages students to always keep up with the times, which is currently the era of technology. However, apart from the many benefits derived from using EdPuzzle in learning, there are also several obstacles faced by the participants when implementing it in class, which is illustrated in Figure 4 below.

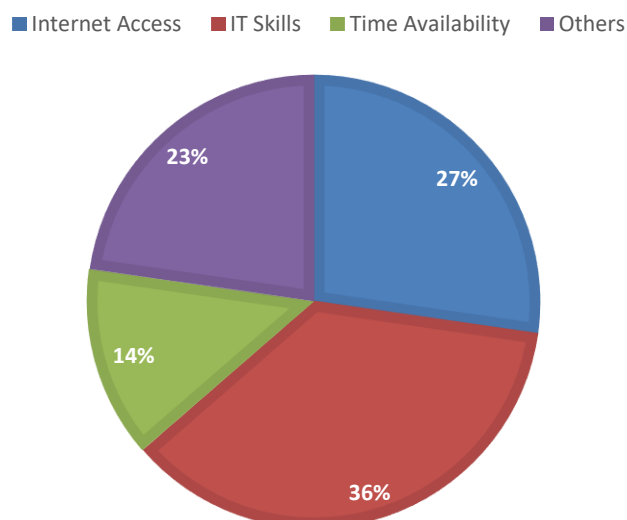


Figure 4. Difficulties encountered when developing technology-based learning media

Even though technology-based learning media is considered important and useful, many participants still encounter problems with its use. Figure 4 shows that the biggest obstacle that can be faced by teachers is the lack of technological capabilities they have. 36% of participants admitted that their IT skills were not qualified. One participant even called himself technologically illiterate. The second problem is poor internet access or network. 27% of participants complained about these technical problems. The participants came from different areas in Sidoarjo, so the possibility of getting access and a stable internet network varied. Furthermore, there were also constraints on time availability experienced by 14% of the participants. These participants are hampered by the limited time they have for self-development, for example, to improve their digital literacy and explore digital media for use in learning. Finally, other reasons that become obstacles include laziness and lack of ideas to build materials, faced by 23% of participants. However, the many obstacles faced by the participants did not dampen their enthusiasm to try to create and implement EdPuzzle integrated learning. A total of 22 participants shared the teaching modules they had developed and used EdPuzzle as a medium and source of learning English for students.

• Unsur Kebahasaan : Menggunakan simple present tense, menggunakan adjective (kata sifat), menggunakan relative verb (kata kerja penghubung).

TUJUAN PEMBELAJARAN: Reading And Viewing (Membaca dan Memirsa)

- 10.B.1 Menganalisis, menangkap makna dan mengevaluasi fungsi sosial, struktur teks, dan unsur kebahasaan descriptive text secara kritis, kreatif dan jujur terkait topik fenomena alam dan sosial dengan tingkat kelancaran dan ketepatan yang optimal.

Indikator

- membaca dan merespon berbagai macam teks descriptive text secara mandiri.
- menunjukkan keterampilan merespon teks yang semakin kompleks.
- menulis melalui aktivitas yang dipandu dan menyampaikan ide kompleks dan menggunakan berbagai kosakata dan kata kerja dalam tulisannya.

URUTAN KEGIATAN PEMBELAJARAN :

PERTEMUAN 1

Langkah Pembelajaran:

Kegiatan awal:

Kegiatan Awal (5 menit)

- Menyiapkan peserta didik untuk mengikuti proses pembelajaran seperti berdoa, absensi, menyiapkan buku pelajaran;
- Guru menyampaikan bahwa mereka akan mempelajari tentang descriptive text dan bagaimana membuat descriptive text serta bagaimana menggambar, mengungkapkan, seseorang atau suatu objek baik abstrak maupun konkrit.
- Guru menanyakan apakah di antara siswa ada yang sudah pernah menerima atau membuat descriptive text dan diminta memberikan contoh.

Kegiatan Inti (75 menit)

- Guru menanyakan apakah di antara siswa ada yang sudah pernah membuat descriptive text dan diminta memberikan contoh.
- Kemudian guru meminta siswa memahami descriptive text yang dijelaskan oleh guru. Guru memperkuat pemahaman siswa dengan pertanyaan-pertanyaan dan penjelasan tentang descriptive text dan cara membuat descriptive text.
- Mengkondisikan siswa untuk siap mengikuti pelajaran dengan menunjukkan descriptive text sederhana.
- Memberikan sejumlah pertanyaan berkaitan dengan descriptive text.
- Meminta siswa untuk membaca dengan seksama dan memuliskan ungkapan yang digunakan dalam descriptive text sederhana yang digunakan.
- Mengajukan siswa menganalisa tujuan, struktur teks, dan unsur kebahasaan descriptive text sederhana secara berkelompok.
- Memberi kesempatan pada tiap kelompok untuk memperlihatkan hasil analisa.
- Meminta siswa untuk membaca dan melihat sebuah video descriptive text dan menjawab soal tentang descriptive text tersebut melalui situs Ed-Puzzle: <https://edpuzzle.com/media/640119db01d98242e3eb7dec>

Kegiatan Akhir (10 menit)

- Memberikan umpan balik terhadap proses pembelajaran: Well, class, you have done a very good job today. Most of you are active. I hope next time, all of you involve in the interaction. How do you feel during the lesson? Is there anyone want to say something?
- Menyimpulkan apa yang dipelajari hari ini.
- Berdoa

• Memberikan sejumlah pertanyaan berkaitan dengan narrative text.

- Meminta siswa untuk membaca dengan seksama dan memuliskan ungkapan yang digunakan dalam narrative text sederhana yang digunakan.
- Mengajukan siswa menganalisa tujuan, struktur teks, dan unsurkebahasaan narrative text sederhana secara berkelompok.
- Memberi kesempatan pada tiap kelompok untuk memperlihatkan hasil analisa. Meminta siswa untuk membaca sebuah narrative text dan menjawab soal tentang narrative text tersebut melalui media ed-puzzle: <https://edpuzzle.com/media/640105344e42a142a9c9e945>

Kegiatan Akhir (10 menit)

- Memberikan umpan balik terhadap proses pembelajaran: Well, class, you have done a very good job today. Most of you are active. I hope next time, all of you involve in the interaction. How do you feel during the lesson? Is there anyone want to say something?
- Menyimpulkan apa yang dipelajari hari ini.
- Berdo'a

REFLEKSI GURU :

- Keberhasilan apa saja yang dicapai pada bab ini?
- Apa yang harus menjadi perhatian khusus dalam pelaksanaan pembelajaran pada materi ini?
- Apa yang harus diperbaiki?
- Siswa mana yang membutuhkan perhatian khusus?

REFERENSI :

- Situs Web Ed-Puzzle: <https://edpuzzle.com/media/640105344e42a142a9c9e945>
- Suara guru
- Koran/majalah berbahasa Inggris [www. dailyenglish.com](http://americanenglish.state.gov/files/ae/resource_files/http://learnenglish.britishcouncil.org/en)

ASSESMEN :

PEDOMAN PENSKORAN

- Jawaban singkat
- Penskoran instrument dilakukan dengan memberikan skor 2 untuk setiap jawaban benar dan 0 untuk jawaban salah.
- Uraian singkat/uraian objektif
- Penskoran instrument dilakukan dengan memberikan skor 2 untuk setiap jawaban benar dan 0 untuk jawaban salah.

REMEDIAL :

- Peserta didik yang belum mencapai KKM (75) diberi tugas untuk membaca beberapa narrative text dan atau memuliskan sesuai dengan situasi yang diberikan selama dua minggu. Setelah dua minggu guru mengevaluasi kemajuan kompetensi peserta didik dalam menangkap makna dan atau menyusun narrative text. Kemudian guru melaksanakan penilaian remedial.

Figure 5. Samples of Teaching Modules with EdPuzzle Integration

Figure 5 is an example of the display of teaching modules developed by participants by utilizing EdPuzzle as a learning medium and clearly recording them in the module. In general, the participants succeeded in making material with the application of EdPuzzle. The majority of participants raised text-based learning, such as narrative text, descriptive text, or recount text to be integrated with EdPuzzle with open-ended questions being the most favorite.

CONCLUSION

Based on the results and discussion, it is known that all English teachers participating in the workshop finally know the features of the Edpuzzle application which is one of the English language learning media applications, and have implemented Edpuzzle in learning. All English teachers, as the workshop participants, considered the material regarding the Edpuzzle application very useful to support the teacher and student digital literacy. However, the majority of participants face technical obstacles such as poor internet networks and limited data packages when developing technology-based learning media. In addition, according to the participants, the role of technology-based learning media in the implementation of Kurikulum Merdeka is very important because it is effective, practical, and interesting. Supported by these facts, it can be concluded that this community service program has been implemented properly and successfully, and is able to bring tangible results to high school-level English teachers in Sidoarjo as the target community, namely increasing learning innovation by utilizing EdPuzzle as a technology-based media.

ACKNOWLEDGEMENT

The authors are grateful to *Direktorat Riset dan Pengabdian Masyarakat* of Universitas Muhammadiyah Sidoarjo for providing financial support for our community service. Their generous funding allowed us to conduct our study and complete our work. The authors also want to thank the partner community, teachers at MGMP of English Subject in Sidoarjo, for their valuable contributions to the program.

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