CEFR Informed Development of Digital Expository Text Resources for High School Students in Cirebon, Indonesia

Rifa Maryanti
IAIN Syekh Nurjati Cirebon

*Corresponding Author
Email: lalabumela@syekhnurjati.ac.id

Abstract
Indonesia's English Proficiency Index (EPI) has declined significantly over the past 11 years, according to Education First's annual report. The country's latest ranking is 81st out of 111 countries, indicating poor English performance. One of the contributing factors is the conventional pedagogy that focuses mainly on grammar, while the disregard of various forms of English literature, such as expository texts, impedes students' writing ability. Developing digital learning resources that provide new insights is crucial. So in this study investigates the key creative processes employed in the development of digital expository text resources for high school students in Indonesia and how these processes inform the characteristics of the product prototype. The research design is a qualitative approach, specifically a single-case study design, with the author being the only participant. Data collection methods included document analysis, and content analysis was used to analyze the data. The findings indicate that the key creative processes involved in the development of digital expository text resources include lesson plan analysis, text analysis, and CEFR analysis, among others. These processes informed the characteristics of the product prototype, including its visual design, interactive features, and pedagogical strategies. The study suggests that the development of digital expository text resources should be informed by the Common European Framework of Reference for Languages (CEFR) to align with the language proficiency levels of the target audience. This study provides valuable insights into the creative processes involved in the development of digital expository text resources and how these processes can inform the characteristics of the product prototype.

Keywords: digital learning resources; expository texts; CEFR; innovation; differentiated learning; teacher-learner agency

INTRODUCTION
The curriculum in Indonesia has undergone four changes since 1994. In teaching English, the application of a text-based approach began in 2004. And the last curriculum, the 2013 curriculum and the Merdeka curriculum, the genre-based approach was used. However, this based genre approach is considered unsuccessful because it only focuses on the teacher, so it has limited space to build creativity and agency (Sudimantara, 2020). In addition, in the latest curriculum, the Merdeka curriculum has holistic learning, a new paradigm and The Common European Framework of Reference (CEFR)-based as stated by UNESCO (2022). The fact is that in learning English today, it is still using a traditional approach that locks students' creativity. Apart from that, in the traditional model, students also tend to always be asked to study according to recipes or in other words, to be arranged arbitrarily (Lian, Lay, & Lian, 2023) so that students' knowledge and experience is limited. Not a few English teachers have minimal knowledge about CEFR, so they don't apply it in the learning process. The importance of teachers being able to know
CEFR is to adjust learning according to the curriculum that is student-centered. Because every student has different English skills, therefore differentiated learning is needed. Due to the inflexibility of the directive approach to language learning and the need to explain learning materials to satisfy students' varied learning interests, needs and, as a result, keeps them interested in language learning (Lian, 2018).

With so many curriculum changes, it should be able to improve the quality of education in Indonesia. However, in teaching English, it is considered unsuccessful. This is evidenced by Indonesia's learning rate of English Proficiency Index (EPI) which decreases drastically every year and has a very big difference with neighboring Malaysia, which has a high EPI level. Indonesia has the lowest ranking at level 81, while Malaysia has the lowest ranking only at level 30 which is a very drastic difference and Indonesia is far below Malaysia, in other words, it shows in the last eleven years, Indonesia’s EPI has dropped 65 points. From that data, it can be said that Indonesia is in a learning crisis, especially in learning English. This is means that Indonesia’s learning process in English language is bad. The low quality of English language in Indonesia is caused by inadequate learning of English, one of which is limited learning resources (Sudimantara, 2021). This can be seen from the presentation of expository text in English learning which is very narrow, where only one type of expository text is learned by students.

In addition, in the 21st century, humans have gotten used to living side by side with technology. Naturally, this has an effect on education as well, as education plays a role in preparing young people for a world dominated by technology (Vaslyshyna, 2020). Learning using technology is not a bad choice at this time, considering that digital learning has started to take place when the co-19 pandemic hit Indonesia. And for today's students it is not difficult to access and use technology (Hubbard, 2021). So then, using digital learning has many positive sides, such as improving the quality of student learning (Sharma, 2021). Besides that, the use of technology also makes the learning more flexible (Sousa et al., 2022). Computer-assisted language learning (CALL) become a trend after the pandemic and made it a solution in education. This CALL is defined as language learning that is fully integrated by technology (Nguyen, Vo, & Tran, 2023). But in reality, not a few educators resist change and prefer traditional education (Assassi & Chenini, 2023) and there are also not ready for digital learning as in Lebanon revealed by Sabieh (2023). This is commonly called inertia, where humans will tend to do what has worked and reject all kinds of changes that exist (Hubbard, 2023). Thus learning English will also not change. And as educators must understand the basic theory in technology integration, so they will be able to adopt technology and develop their skills in teaching (Tafazoli & Picard, 2023). In Son (2019) also stated that there is a need to acknowledge understanding and embracing this digital revolution because learning is not an option. So it is important to integrate technology in English learning processes for today.

With some of the problems previously described, the authors conducted this research by developing a digital learning resource that has a student-centered, differentiated learning, and CEFR-based concept in accordance with the current independent curriculum policy. The digital learning resources developed by the author are learning resources of expository texts, where there are six types of expository texts that are adjusted to the student's CEFR level. In this development,
there are various kinds of creative processes carried out by the author which are rarely or never done by people in general. And in this paper will explain the creative processes that expected to add new insights to the reader.

**New paradigm of learning English**

Every human being must experience the learning process, both in the school environment and in the community. According to Peterson (2017) in Sudimantara (2021), the natural human learning process goes through the stages of freezing, imagining, exploring, distinguishing and mastering. In other words, the learning process is first processed from the right brain, namely non-verbal components such as emotion, intonation, rhythm, etc. Stories have tremendous power for our bodies. Because listening or telling stories can make many parts of the brain work. When we hear a good story the neural activity in our brain increases five times (Helyanti, Bumela, & Ikawati, 2022). In other words, stories can illuminate the city of our minds (Crossfield, 2019). Humans can only implant ideas, thoughts, and feelings into the listener's brain by telling stories. Expository text as story is a form of expository text that is considered as a story. This is because in the human brain as Lala Bumela said in the fourth podcast with Ania Lian that all types of information and text are processed as stories. Story is the first thing that will be processed by the brain. Because the human brain processes everything as a story and in the story it has emotions and intonation. With emotion and intonation in it, the expository as story text will be captured by the right hemisphere which processes non-verbal components (Lian et al., 2020). So that, we need learning tools that can use both of hemisphere, or multi-sensorial learning tool that can’t focused on left hemisphere which is only remember and repeating in the learning processes.

**CEFR to promote differentiated learning**

CEFR stands for The Common European Framework of Reference. CEFR was published in 2001 by the council of Europe (Jones, 2022). CEFR offers a comprehensive, coherent and transparent description of language proficiency in terms of language us. To more easily understand, CEFR is an international scale in knowing English proficiency and has six levels namely A1, A2, B1, B2, C1, and C2. Several countries have implemented or adopted CEFR in education, so that it can be known about the level of student CEFR levels, besides that, the emancipated curriculum has also issued a policy to use CEFR in learning English. CEFR with its six levels can be implemented in learning English which then makes it differentiated learning. Students can learn English at all six levels, that is, they will study according to the CEFR level. That way, the existence of a diagnostic test before learning is mandatory, so that students can find out their level of English which they then learn according to their level which is commonly called differentiated learning. This is because we create and live by internal, individual meanings that no one else can understand (Lian & Sangarun, 2017).

Likewise with students, the teacher must be able to realize that nowadays students have different needs. Not only the needs of each student are different, but also seen from the background knowledge, potential, interests, and styles of each student in learning are different (Alshehri, 2020). The point is that every language learner must have a different learning from other individuals. Because of learning is a heuristic process that begins and ends with the individual learner, so that each
individual has different abilities as well as the learning process received (Lian, Luu, & Siriyothin, 2021). Differentiated was introduced by Carol Ann Tomlinson in 1999 where the concept of learning is the same as the philosophy of education according to Ki Hajar Dewantara, namely that teachers must be able to guide their students to further develop according to their characteristics, traits, interests (Astuti & Affendi, 2022). In other words, differentiated learning is also rooted learning (Mahdiannur et al., 2022). Therefore differentiated learning can increase the motivation and confidence of the students themselves (Guajardo, 2022). From this explanation it is known that the concept of differentiated learning is very suitable in the current era, where differences between individuals are increasingly visible. By using differentiated learning through CEFR, learning must also be digital learning. It is impossible to use differentiated learning without integrating technology in it. This is because with the integration of technology in learning, students can explore more using the technology itself (Sousa et al. 2022). Thus it can be said that CEFR can support differentiated learning which is also compatible with exploratory learning and digital learning.

METHOD
The researchers used a qualitative Research and Development study to gather and analyze data. This section outlines the research design, participants, data collection methods, and data analysis techniques used in this study. As in simple words, this research was conducted by create a digital learning resource first then it would be analyze after the product completed and as a result there some creative processes. This study is a qualitative R&D study where according OECD (2018) from Frascati Manual updated that Research and development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available knowledge. And the participant in this study is the developer of the digital learning resources of expository texts which is the author. The data collection methods used in this study is document analysis. The product prototype analyzed to identify the characteristics and features that were developed during the creative processes. These characteristics and features were used to infer the creative processes in its development. The data analysis techniques used in this study was content analysis. The product prototype analysis analyzed using content analysis to identify the characteristics and features developed during the creative processes.

RESULT AND DISCUSSION
Result
In developing this product (digital learning resources of expository text) there are several creative processes that have been passed by the author. All of creative processes that has been carried out, it will create an innovation (Wallas, 1926). So then here is that some creative processes:

Lesson plan analysis
The lesson plan is an official document from the Ministry of Education and Culture (Kemendikbud). That way the lesson plan is an important document that can be analyzed to find out the blank spots that exist so as to improve the quality of the
ongoing learning process. In conducting this analysis, researcher observed several main components such as pedagogy, learning media, learning resources.

The figure is the lesson plan that has been analyzed by the author. This lesson plan is the new form of lesson plan in Indonesia. The result is shows that this lesson plan is student-centered when viewed from the word "student" which often appears. However, there are many blank spots that reject this statement. This is shown from student activities in the lesson plan that lead to teacher-centered, such as imitating, participating in interactions, asking where in this context the teacher will answer them, especially in closing activities. This proves that this lesson plan is still teacher-centered. In addition, the lesson plan is not yet holistic, where in learning students only do activities reading sentences, not texts and this is still very partial and not high order thinking skill. The most important thing here is that the lesson plan does not use or involve technology, while digital learning is one of the elements of the emancipated curriculum. From this lesson plan also, it can be seen that this lesson plan is inquiry-based learning but still teacher-centered and not technology based. Therefore the author try to reduce this problem that occur in Indonesian education by acting as a curriculum engineer who develops innovative products and concepts that can help students play a more active role during learning.

**Texts analysis used two different approaches**

The next step taken by the author in making this project is to do text analysis. In conducting text analysis, the author looks for an example of expository text which will be used as a sample in this process. In analyzing, the author use two different approaches, namely the genre-based approach and reading for emotion. The two approaches are used as comparison material to get a more relevant
approach to use in this product.

In the first approach, namely the Genre Based Approach, it has a text structure, namely introduction, body, and conclusion. In conducting the analysis using this approach, the researcher felt that the text was very boring. This is because researcher analyze by searching for parts of sentences that are opening, content, and closing, so researcher feel bored in reading them.

Whereas the second approach is Reading for emotion where there are six stages in it namely focus, disturbance, dialogue, development, resolution, and moral. This approach is carried out by involving "emotion" in reading and analyzing a text. In addition, reading for emotion is also a multisensory approach. This makes the researcher feel more about the emotions expressed by the author in the text. In addition, the visualization above shows that the text describes a problem which will then be resolved. So that, in conducting analyze using reading for emotion, researcher can understand every detail contained in the text that the author conveys to his readers. In addition, the text structure of each type of expository text has a different visualization when using reading for emotion. This shows that reading for emotion is a very creative learning tool. Thus it will help readers to be more interested in reading.
After conducting text analysis using both approaches, it was found that the main different of both approaches is that Reading for Emotion see the text as problem-solving strategies. And it is relatable with opinion of Ania Lian in her YouTube that every story is about a problem. So the reading for emotion approach can be applied in this project. Where using this approach is able to activate "emotion" in the reader, reading for emotion also has more detailed stages compared to the other approach. Besides that, it can also activate all parts of the human brain therefore in learning it also requires multi sensorial learning tools such as...
as reading for emotion. This can make it easier for readers to understand the text and the learning process. So, in making digital learning resources of expository text, researcher uses the reading for emotion approach as a new approach in learning English.

**Texts development CEFR based**
The next creative process that researcher have done is to analyze the text which will later be added to digital learning resources. Previously the researcher conducted a search regarding CEFR, and expository text. In gathering information about the CEFR, the researcher developed this information from a website that also has a diagnostic test, namely the EFSet. Besides being accessible, the diagnostic test provided by EFSet also has the option of taking the test, namely 15 minutes and 55 minutes. Thus, the researcher uses the EFSet as a diagnostic test in this product and to foster student motivation, the researcher also provides CEFR level certificates for students. This certificate is made through a website called Canva, where students can write their own name and level. Furthermore, the researcher also collects some information about expository text, namely the meaning, characteristics, types, and examples. The information collected by this researcher was obtained from various sources accessed through Google.

After getting all the materials, the researcher then analyzed the examples of the text. The analysis that the researcher did was started by checking the level of the sample text that had been collected. This check is carried out through a virtual writing tutor website which can be accessed free of charge. On this website, you can find out the CEFR level of a piece of writing based on the quantity of vocabulary and sentence structure contained in a piece of writing. If a text gets results that are not in accordance with the wishes of the researcher, the researcher will carry out manual analysis by changing the sentence structure and the use of vocabulary in it. In other words, researcher will paraphrase to get the appropriate results. The researcher did the same for all texts at all CEFR levels, namely A1, A2, B1, B2, C1, and C2.

After conducting CEFR analysis for all types of text samples, the researcher then categorizes examples of expository texts based on the CEFR level. To make grouping easier, the researcher made a table containing the types of expository text, CEFR level, and titles of the sample texts that had been collected. In addition, the researcher also conducted text analysis using reading for emotion for each example of the text. The results of the text analysis were then described by the researcher through a checklist table for each of its stages.

Then, the researcher checked the readability scores for each text of each type of expository text. Readability is a test to determine the level of difficulty of a text. In this readability analysis, the researcher uses a website that can be accessed for free called "the first word". In conducting an analysis using the website, the text that is said to be the most difficult has a small score. It can be said that the smaller the score obtained, the more difficult the text is. The researcher conducted an analysis of each type of expository text to find out which type of text has an easy to difficult level.
Table 1. Table of Readability scores

<table>
<thead>
<tr>
<th>Text</th>
<th>Definition essay</th>
<th>Process essay</th>
<th>Classification essay</th>
<th>Problem and solution essay</th>
<th>Cause and effect essay</th>
<th>Comparison and contrast essay</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEFR Level</td>
<td>A1</td>
<td>A2</td>
<td>B1</td>
<td>B2</td>
<td>C1</td>
<td>C2</td>
</tr>
<tr>
<td>Readability Index</td>
<td>78,25</td>
<td>77,53</td>
<td>70,12</td>
<td>68,64</td>
<td>46,17</td>
<td>43,75</td>
</tr>
</tbody>
</table>

From the results of analysis it can be seen that the easiest type of expository text to the most difficult type of text is Definition essay, Process essay, classification essay, problem and solution essay, cause and effect essay and comparison and contrast essay. Whereas in schools that are taught to students it is the second difficult level after the comparison and contrast essay, namely the cause-effect essay. From the results above it can also be seen that each CEFR level text has the right level of difficulty, namely A1 with the easiest text, and C2 with the most difficult text. Thus it can be said that there is compatibility between CEFR and Readability levels.

Digital learning resources development

Researcher make a product "digital learning resources of expository text" using Google sites. Apart from being easy to access without paying, Google Sites also offers a variety of creative features. This makes researcher feel happy in making projects. The initial step taken by researcher is to design the theme used. In this product, the researcher chose purple as the theme because it can attract the attention of visitors with elegant, luxurious and graceful nuances. Next, the researcher makes each page that plays a major role in this product, such as Home, Diagnostic test, CEFR, Expository text, and Evaluation. Then the researcher makes a cover for each page by making adjustments between the background and the title. The background that the researcher uses for each page cover has a natural theme which can foster a sense of calm when viewing it.

The digital learning resources for expository text aim to promote student agency and independent learning by implementing an inquiry-based learning model. The learning model involves five steps: ask, investigate, create, discuss, and reflect. The researcher has analyzed and developed inquiry-based learning activities using digital learning resources and created guides for students and teachers to facilitate the learning process.

After completing the core development of the product, the researcher has rearranged the website. The main page includes information about the researcher and the digital learning resources project, and an introduction to CEFR (Common European Framework of Reference) levels. A diagnostic test and a link to print a student's CEFR level certificate are also available.

The "Expository Text" page is divided into subpages for each CEFR level, providing information about the meaning and characteristics of the expository text, along with subpages for each type of expository text. The researcher has also added a "learning activities" page, which includes links to Google Drive for learning activities, a journal link for reading for emotion, and a Google form for student evaluation.
Additional pages have been added for "additional resources" and "references." The former provides links to websites that can help students find word meanings, correct grammar, and check their writing level. The latter includes references used in making the project.

**The characteristics of product prototype**

The project carried out by the researcher has two kinds of products, namely the concept and the product itself or digital learning resources. The first product is the concept of a “digital learning resource” created by the author. This concept focuses on how students learn to use this product. Students will become the main figures in the learning process or “learner-centered”. With students being the main actor in learning it will also involve the concept of “student agency” issued by the OECD (2019). Students will play an active role in using the product, namely students will explore the material that has been provided. In other words this learning is also “exploratory learning”. However, the role of the teacher as a mentor and coach will never be replaced. Teachers will continue to play a role in conducting learning with the “digital learning resources” that the author has developed. In addition, each student has different abilities, especially in language. So there is a need for "differentiated learning" in accordance with the policies in the independent curriculum in Indonesia. Therefore this product is also equipped with various CEFR levels which can be used as a form of learning according to the student's level.

The figure is the second product in this research, namely a product in the form of "digital learning resource of expository text". This product is a website that is equipped with various features, namely home, diagnostic test, CEFR, Expository texts, learning activities, additional resources, and references. On the main page, namely "home", there is a profile of the researcher and the product itself. The "diagnostic test" page is a page that provides several links to do a CEFR level test. To provide information about the CEFR itself, afterward there is a "CEFR" page which provides a brief explanation of the CEFR and official links from the British Council. Next is the core page of the product, namely "Expository Texts". On this page there are various types of expository text which are equipped with definitions and examples and also adapted to the CEFR level. On the "learning activities" page, learning tools are provided that can be used in learning, namely reading for emotion, and also by providing explanations about activities during learning, both for students and teachers. The following page is "additional resources" in which there are various tools or websites that can be accessed and are useful in learning, such as Grammarly, Cambridge Dictionary, and so on. Finally, there is a page for references used by researcher in making this project.

In this product students can access it easily and the availability of images that attract students' attention, so that students can be more enthusiastic in learning. With high student enthusiasm and motivation, the learning process will be more enjoyable and can produce sweet results.
Typicality of text based on CEFR level

In developing CEFR-based digital learning resources of expository texts, it is not surprising that in this product there are various materials provided with the six CEFR levels. Each learning material has been provided by the researcher according to that level, namely A1, A2, B1, B2, C1, and C2. This refers to the concept of "differentiated learning" that researcher applies to their prototype products. With the availability of many levels, each text provided also has a different typicality, and the following is an explanation of the typicality of the text according to its level.

At A1 level which is the beginner level in English language skills. At this level, the text that belongs to this type is text that has a very general or simple topic. There are many basic phrases used in it, besides that the text at level A1 is easily understood by the general public. Furthermore, at the A2 level where this level is higher than the previous level. At this level the text has topics and expressions related to the most relevant areas of experience. This text also usually has a phrase that refers to things that are routine or usual for people to do.

Level B1 is an intermediate level. Texts that have this level are usually texts that have topics or discussions that are well known within the scope of their environment, both in the work environment and in others. This text can be said to be quite complex but cannot yet reach a concrete word. Next is text with Level B2. This level is also called the upper intermediate. At this level the text becomes more complex and can be said to be concrete and abstract and the text is explained in detail.

At the C1 level namely the advanced level. Text that has this level is text that has the correct structure, connectors, and cohesive devices. This text is a text that has many implied sentences and is longer, detailed than the texts at the previous level. The last is level C2, namely proficient. Texts that have this level are texts that
are full of implied meanings in them. This C2 level text has absolutely no errors in it. Everything is neatly arranged in it.

From some of the descriptions above regarding the type of text according to its level, it can be seen that the text with more implied meanings in it, the higher the level. In addition, the text that has fewer errors in it, the higher the level it gets. With the different levels provided by researcher in digital learning resources of expository text products, it is hoped that this will continue to help students improve their English skills. This is because students will learn according to their abilities, namely with the concept of differentiated learning.

DISCUSSION

The researcher in conducting this study act as curriculum engineers who concoct their own curricula in developing digital learning resources of expository texts. The researcher has developed digital learning resources of expository texts based on CEFR. The researcher used CEFR to support differentiated learning. The researcher developed many examples of each type of expository text that have been adapted to the six levels of the CEFR. This is because currently, many have used CEFR in various fields especially language education around the world (Karagoz & Cobanoglu, 2022). And in this product it also integrates technology in learning, so that it can support and enhance learning in accordance with policies in an emancipated curriculum that requires technology-based, CEFR and holistic learning.

Apart from improving the quality of learning English, another objective of this development is to train the teacher agency of the researcher as prospective teachers. From this study it can be seen that the teacher-agency role is emphasized here. By developing CEFR-based digital learning resources, it shows that as a teacher or prospective teacher, you must have creativity that can improve the quality of learning. This is reinforced by the statement that the success of any initiative in language education depends on the teacher (Tafazoli & Picard, 2023). How good the teacher is in providing, adopting and facilitating students in the learning process is important. The creativity is essential for teachers to adapt to digital transformation in education (Donina, 2020). The language teachers must also be able to work with various digital media and utilize professional technology integration development (Son, 2020). Therefore, the teacher-agency must also be improved and one way is to develop learning resources which contain many new insights that can improve the teacher agency itself. From the creative process that the researcher went through, it also increased the teacher-agency of the researcher as a prospective teacher. There are many new insights that researcher get after conducting this study, one of which is how the learning process should take place where learning should be student-centered (Sudimantara, 2021), applying CEFR which makes it differentiated learning that is compatible with exploratory learning and supported by technology which ends up as digital learning. And from the findings of this study there are many new insights which are important things that can be applied in learning English. The first is the new paradigm of learning, where learning English is not only one way, and you don't necessarily have to memorize grammar and vocabulary. Learning English by focusing on non-verbal components such as emotion and intonation will be more easily accepted in the right brain (Lian et al., 2020). This is reinforced by Ania Lian (2017) where current learning is not
vocabulary that students struggle to understand and manipulate but ways in which emotions can be transformed into a text to evoke the desired effect of the interlocutor. Therefore it is important for teachers to know things like this that can improve the quality of learning. And one of the learning tools that support this statement is reading for emotion which is a multi-sensorial learning tool in this digital learning resources product. From this discovery it is hoped that it can create other research ideas and it is hoped that this product can be used in learning English with a wider range.

From the interpretation of the creative process that has been presented, it can be seen that learning English does not only necessarily use grammar and vocabulary, or in other words there is a new paradigm of learning. And from this creative process can improve teacher-agency which brings an understanding that teacher agency must always be improved because it can help students find their own ways in learning.

CONCLUSION

Digital learning resource of expository text is an innovative product that has been developed by researcher. The researcher in conducting this research also acts as a curriculum engineer. This is because researcher develops a product that is based on something contained in the current prototype curriculum. In developing prototype products, researcher carried out many creative processes. One of the main creative processes is that the researcher has developed an expository text based on the CEFR level which is also carried out by paying attention to the reading for emotion structure. From this creative process, the researcher can improve her quality as prospective teacher. The research conducted by the researcher has many new things that can be added by researchers in the future. The new thing that researcher mean is something that can add more value to a product like this. It would be even better if future researchers could add homemade diagnostic tests. This can be a reference for future researchers in knowing the scoring system in the diagnostic tests they make.

In addition, the limitation of this research is only in wide area and also only for expository text. Then for the future researchers, the material regarding expository text and others will be even better if future researchers can develop it again by adding various more creative elements. In resource products like this it is also hoped that an evaluation section can be added which can also improve student abilities. That way, the future researchers can carry out wider, more innovative, and bigger experiments. Finally, the researcher hopes that this product can be a trigger for future teachers and researchers to develop even more innovative learning products.

REFERENCES


Assassi, T., & Chenini, A. (2023). The reality of CALL and IT literacy in under-represented contexts: The case of EL@N, a TEFL platform in Algeria. In Tafazoli, D., & Picard, M. (Eds.), *Handbook of CALL teacher education and professional
development voices from under-represented contexts. Springer Nature Singapore Pte Ltd.


Lian, A. B. (2022, October). *Challenges of teacher education programs: research and reality*. [Video]. [https://www.youtube.com/watch?v=JX_sxBb2g](https://www.youtube.com/watch?v=JX_sxBb2g)


Scientific and Cultural Organization.
