



The Unex Application as An English Interactive Learning Media : A Feasibility Study

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Abstract: This study aims to analyze the feasibility of Unex application as an interactive learning media in enhancing students' understanding of English texts. Unex stands for Understanding English Text application. The study used research and development (R&D) method with the ADDIE model. The subject of this research was eleventh-grade students at Health Vocational School of North Borneo that use android smartphones. The research instruments were questionnaires and validation sheets. The questionnaire was a media practicality questionnaire used to find out the practicality of the media used by teachers after a try-out of the Unex Application. Furthermore, Validation sheets were used to validate the Unex Application. The analysis technique used to explain the response is descriptive analysis, which involves calculating the total, average, percentage and then is adjusted and categorized into several categories. The result showed that the validation from media and material experts for the Unex application was 96% and 98.4%, and both were in very feasible categories. Also, the result from the media practicality was 92.8%. Therefore, the Unex application is well-developed as an English interactive learning media for students Health Vocational School of North Borneo. Moreover, the media and material in the Unex application were validated and declared with good scores and very feasible categories.

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Introduction

Learning media is a tool that teachers use to support the explanation of learning materials. The role of learning media is critical and has an equal position with the teaching method (Sanchez-Sepulveda et al., 2020). With learning media, the teacher can deliver the teaching material to be more concrete and makes students easier to absorb the learning material (Peebles et al., 2018; Rachmadtullah et al., 2018). In this technology era, the teacher usually uses multimedia resources such as graphics, videos, and animations can help students better understand and retain information (Kirkorian, 2018; Kissi & Dreesmann, 2018; Syawaludin et al., 2019). Many learning media in the teaching and learning process, such as smartphones and electronic devices (Bao et al., 2019; Rohaeti et al., 2019). One of the subjects that require learning media is English. Therefore, in Indonesia, English is a foreign language (Skulmowski & Rey, 2020; Snyder et al., 2020). English is not generally used in social interaction and only in specific fields, such as education.

Teaching English in vocational high schools has evolved to enhance students' English skills in specific fields of study. ESP (English for Specific Purposes) is an approach to teaching and learning English that is tailored to the needs and expectations of learners in specific fields of study (Afify, 2020; Sokol & Flach, 2020). It has evolved over time to



enhance students' English skills in vocational high schools, where English is taught with a focus on the vocabulary, language structures, and communication skills required for particular professions or areas of specialization (Thomä & Zimmermann, 2020). The main goal of ESP is to equip students with the language skills necessary to succeed in their chosen field. It recognizes that learners in vocational high schools have specific language needs related to their future careers, which may differ significantly from the general English language skills taught in traditional English courses (Cladis, 2020). ESP in vocational high schools is characterized by a needs analysis to identify learners' language requirements, targeted content that focuses on field-specific language skills, the use of authentic materials to expose students to real-life language use, a task-based approach that promotes practical application of language skills, integration of listening, speaking, reading, and writing within the vocational context, technology integration to enhance learning, and assessment methods aligned with learners' goals and field of study. Regular feedback is provided to students to track their progress and identify areas for improvement (Oh et al., 2018; Pal et al., 2019).

According to Arifin et al. (2022) state that ESP that ESP aims to prepare students to use English in academic, professional, or workplace contexts where the language is used. ESP is designed to meet the specific needs of the learners. English for Specific Purposes (ESP) has developed into one of the most prominent areas of teaching English as a Foreign Language (EFL) today (Asfihana, 2017). One of the vocational high schools that implemented English for a specific study is the Health Vocational School of North Borneo. In this school, students learn about English for health. In learning outcomes that are used as a guide in learning English at the Health Vocational School of North Borneo, in phase F, students are expected to master several elements or skills in English. One of the elements is reading-viewing. In this element, students are expected to read and respond to various types of English texts and identify the information contained in the texts.

Based on the preliminary study conducted at the Health Vocational School of North Borneo, this school still needed help understanding English text, incredibly descriptive and procedure text. It is evidenced by an interview with an English teacher and the distribution of questionnaires about students' needs and characteristics. Most students have difficulties in learning English, such as still having difficulty understanding English text. In addition, the lack of books/modules in the teaching and learning process and the limited time when learning in class make students find it challenging to understand the learning material, especially English texts.

According to Sukmawati et al. (2022), we realize that learning loss occurs not only due to various pandemics, disasters, etc., but learning loss is a structured effort to leave the world of education from learning as a result of ineffective educational programs. So, providing learning applications for teachers is expected to generate teachers in improving their teaching performance. According to Affandi (2022) the ability of a teacher to manage the classroom and the quality of providing effective learning instructions are also influenced by the teacher's beliefs. Therefore, the teacher should use interactive learning media for teaching and provide students with various sources to solve this problem. One kind of interactive learning media that the researcher developed was *the Unex* application. *Unex* is an android-based application that provides learning material and videos about English texts, such as descriptive and procedure texts, and interactive games that will sharpen students' abilities in English texts. According to Adewoye (2022) Technology literacy level is significant because it improves learners' capacity to perform tasks that are required for computer-based learning to be effective. Therefore, this application can be an alternative solution as a learning media for students learning English texts. One advantage of the *Unex*



application is that the application can be accessed offline, so students do not need to worry about an internet connection when accessing this application. According to (Vega & Arifin, 2022), learning media must be planned well in advance to be helpful. To be effectively transferred to students, the teacher must have a thorough mastery of the media. So, Learning media can also be used to encourage creativity in students by providing them with opportunities to produce their own multimedia content. The learning videos and interactive games are available. This application provides several types of videos and games that students can play. Using Unex as an interactive learning media is expected to make students more excited and enjoy learning English. Furthermore, students become masters of English texts, incredibly descriptive and procedure materials.

The purpose of this study is to analyze the feasibility of the Unex application as an interactive learning media in enhancing students' understanding of English texts, specifically descriptive and procedure texts. Furthermore, this study will demonstrate the importance of teachers in creating simple applications as interactive learning media so that students can easily understand and enhance their learning skills.

Research Method

The method of this research was research and development (R&D). This method was used to produce specific products and tests the effectiveness of the products (Sugiyono, 2013). Furthermore, research and development (R&D) aims to produce new media through the development model. In education, the media produced can be learning models, learning media, and books/modules. The researchers used the ADDIE model adapted from Lee & Owens's theory to conduct research and development. This model is a development cycle (Lee & Owens, 2004) which consists of five stages in this model, namely 1) Analysis, 2) Design, 3) Development, 4) Implementation, and 5) Evaluation. This research was carried out in the Health Vocational School of North Borneo on 2022. The population of this research were all the eleventh-grade students in the Health Vocational School of North Borneo. The subjects of this research were 42 eleventh-grade students using Android smartphones. The material being taught is English text about descriptive and procedure texts. In designing and developing the *Unex* application, the researcher uses Kodular and Canva as websites to assist in learning media development. Canva is a website used to design material in *Unex* applications such as images and animations. Meanwhile, Kodular is a website used to create applications with the help of coding (Pelangi, 2020). Hence, the use of Kodular as an interactive learning media developer website because with Kodular, the developer does not need to type the program code manually.

The technique of data collection in this research was obtained through experts' validation sheets for media and material experts and the media practicality questionnaire to English teachers in the Health Vocational School of North Borneo. The expert validation sheet and practicality questionnaire used a Likert scale, with four answers: significantly disagree, disagree, agree, and very agree. The analysis technique used to explain the response is descriptive analysis by calculating the total, average, and percentage. This technique is commonly used to summarize and describe the characteristics of a dataset. It provides a snapshot of the data and helps gain insights and understand patterns or trends. The analysis results will be adjusted into several categories, as shown in the table 1 below:

Table 1. The Category of Students' Response and Media Practicality Questionnaires

No	Score Range	Students Response	Media Practicality
		Category	Category

1	81% - 100%	Very Feasible	Very Practical
2	61% - 80%	Feasible	Practical
3	41% - 60%	Enough	Enough
4	21% - 40%	Less Feasible	Less Practical
5	0% - 20%	Very Less Feasible	Not Practical

(Source: Dwitiyanti et al., 2020 and Source: Azis, 2019)

Results and Discussion

ADDIE Model

ADDIE (Analysis, Design, Development, Implementation, Evaluation) is a popular instructional design model used for developing interactive learning media and other educational materials (Sugihartini & Yudiana, 2018). Here's a brief explanation of each phase in the ADDIE model in this study:

- 1) Analysis: In this phase, the researchers conduct a thorough analysis of the learning needs and goals, identify the target audience, and assesses the available resources and constraints. This phase involves gathering data to determine the content, learning objectives, and delivery methods.
- 2) Design: In the design phase, the researchers develop the overall structure and instructional strategies for the interactive learning media. This includes determining the instructional approach, organizing the content, creating learning activities, and designing the user interface and navigation. The designer also specifies the assessment methods and criteria for measuring learning outcomes.
- 3) Development: In the development phase, the researchers create the actual interactive learning media based on the design specifications. This involves creating or selecting multimedia elements, developing interactive features, programming if necessary, and integrating all the components into a functional learning product.
- 4) Implementation: In the implementation phase, the interactive learning media is deployed or delivered to the intended users, which could be students, teachers, or other learners. This phase includes providing training or instructions to users on how to access and use the learning media effectively.
- 5) Evaluation: The evaluation phase is critical for assessing the effectiveness of the interactive learning media. It involves collecting data to measure the achievement of learning objectives, gather feedback from users, and evaluate the overall quality and impact of the media. Evaluation findings help in identifying strengths and weaknesses, making necessary improvements, and informing future iterations or revisions.

Material Expert

The validation of material aims to validate the learning materials that consisted of Unex application, descriptive and procedure texts. The material validation was conducted twice to ensure the materials that consist of the application are feasible. For the first material validation, the results can be seen in the following table:

Table 3. The First Product Validation

Aspects	Percentage	Category
Material Presentation	80%	Feasible
Language	75%	Feasible
Visual Appearance	80%	Feasible
Media Advantages	100%	Very Feasible
Average	83,7%	Very Feasible

Table 3 indicates that the average ratings for the materials are already deemed suitable. However, the material expert suggests some revisions, such as enlarging the font size in the interactive games to ensure that students can read it easily. To address these suggestions, the researcher takes the feedback into consideration and proceeds with the revisions. The font size in the interactive games is increased to meet the expert's recommendation. Additionally, any other necessary adjustments or improvements are made based on the expert's feedback. Once the revisions are completed, the researcher arranges another meeting with the material expert for the second validation. The second validation session aims to ensure that the revisions adequately address the expert's concerns and that the learning materials now meet the desired standards. Any remaining issues or areas for improvement are identified and discussed during the meeting. After the second validation, the researcher incorporates the final revisions based on the expert's feedback, ensuring that the Unex application's learning materials are now optimized for effective use in enhancing students' understanding of English texts. The finalized version of the learning materials is ready for implementation in the study, taking into account the expert's recommendations and insights to ensure their quality and suitability. The result of the final material expert validation can be seen in the table below:

Table 4. The Second Product Validation

Aspects	Percentage	Category
Material Presentation	95%	Very Feasible
Language	100%	Very Feasible
Visual Appearance	100%	Very Feasible
Media Benefit	100%	Very Feasible
Average	98,7%	Very Feasible

Based on Table 4, the qualification given by a material expert indicates that the learning materials in the Unex application are highly feasible for use as a learning media in learning English at the Health Vocational School of North Borneo, with a rating of 98.7%. This high feasibility rating suggests that the learning materials meet the necessary criteria and requirements for effective English language learning. The high feasibility rating is a positive indication that the Unex application can significantly contribute to the learning process at the Health Vocational School. The materials have likely been thoroughly evaluated by the expert, considering factors such as relevance, accuracy, comprehensiveness, and suitability for the target audience. The 98.7% feasibility rating further emphasizes the value and quality of the Unex application as a learning resource. It suggests that the application is well-designed and aligns with the specific needs and requirements of the Health Vocational School's English language curriculum. Based on the result of the first and final material validation can be seen the improvement in the following figure:

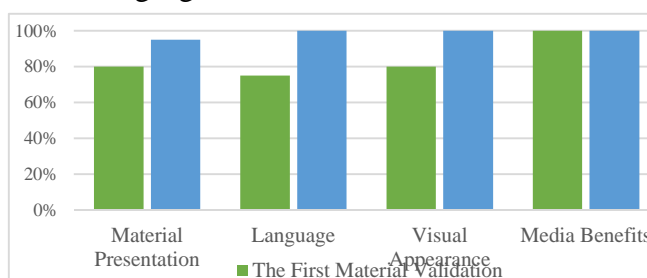


Figure 1. Comparison of Material Validation Improvement

Figure 1 illustrates the progress and improvements in various aspects of the Unex application through the validation process. Notably, the material presentation and visual appearance

aspects have increased by 15% from the first validation to the final validation. This indicates that the revisions made based on expert feedback have positively impacted the overall look and presentation of the learning materials in the application. The changes implemented, such as enlarging the font size in interactive games, likely contributed to this improvement. Furthermore, the aspect of language has experienced a significant increase of 20% from the initial validation score of 75% to a perfect score of 100% in the final validation. This suggests that the revisions made in terms of language usage, clarity, and appropriateness have effectively enhanced the quality of the language used in the learning materials. The researcher's attention to the expert's recommendations and the subsequent revisions made have resulted in an optimized language aspect.

Media Validation

Besides validating the material, the researcher also validated the media expert. The media validation was also conducted twice to ensure the media was feasible. For the first media validation, the results can be seen in the following table:

Table 5. The Result of First Media Validation

Aspects	Percentage	Category
Language	83,3%	Very Feasible
Media Design	85,7%	Very Feasible
Media Operation	100%	Very Feasible
Media Benefit	75%	Feasible
Average	86%	Very Feasible

Table 5 shows that the median average is already very feasible, but the media expert gives some revisions. First, the expert wants the material in the application that previously used Indonesian to be changed to English. Second, the media layout must be improved, especially on the learning media page, to make it more attractive. Moreover, media experts suggest adding more learning videos and icon images on each menu so students are more interested in the Unex application. After that, the researcher revised and met again with the media expert to conduct the second validation. The result of the final media expert validation can be seen in the table below:

Table 6. The Result of Second Media Validation

Aspects	Percentage	Category
Language	100%	Very Feasible
Media Design	92,8%	Very Feasible
Media Operation	100%	Very Feasible
Media Benefit	100%	Very Feasible
Average	98,2%	Very Feasible

From table 6 above, the result qualification from a media expert is very feasible, with 98.2 %. It means that the Unex application has been very feasible to be applied as a learning media in learning English at the Health Vocational School of North Borneo. Based on the result of the first and final media validation can be seen the improvement in the following figure:

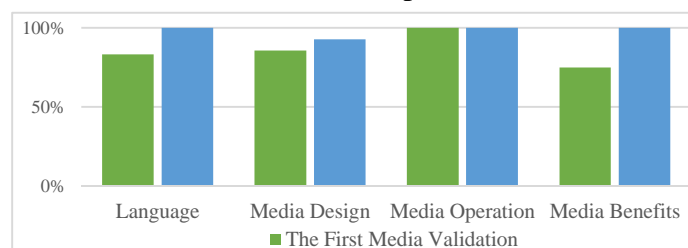


Figure 2. Comparison of Media Validation Improvement

The findings from Figure 2 demonstrate the positive impact of the media validation process on the Unex application. The improvements made to the language aspect, media design, and media benefits have resulted in a more effective and engaging learning experience for students. These advancements further confirm the high suitability and feasibility of the Unex application as a learning media for English instruction at the Health Vocational School of North Borneo.. As for the media operation aspect, it is maintained at 100% in a row.

The Result of the Unex Application

The development process of the Unex application involved several steps and tools. Firstly, the researcher gathered information about the students' needs and characteristics by administering a questionnaire. This step ensured that the application was tailored to address the specific requirements and challenges faced by the students in learning English, particularly in comprehending descriptive and procedure texts. Next, the researcher designed the learning material and accompanying resources, such as images, buttons, and interactive elements. The Canva website was utilized as a design tool to create visually appealing and engaging content. This allowed the researcher to customize the appearance of the material and make it more accessible and comprehensible for the students. Once all the learning materials and visual elements were designed, they were assembled into an application format using the Kodular website. Kodular is a platform that enables the creation of Android applications without the need for extensive programming knowledge. The researcher utilized this platform to compile and organize the content into an interactive and user-friendly application.

After the application was developed and finalized, it was exported as a .apk file. This file format is commonly used for Android applications and allows for easy installation and usage on Android devices. By exporting the application as a .apk file, it can be easily distributed and installed on the students' smartphones or electronic devices, providing them with convenient access to the learning materials and resources anytime and anywhere. The result of the Unex application can be seen in the screenshot below:



Fig 3. Welcome Screen



Fig 4. Home Screen



Fig 5. Learning Materials Screen



Fig 6. Descriptive Text Screen



Fig 7. Procedure Text Screen



Fig 8. Learning Videos Screen

The Ease of Use

Wahid & Cerya (2022) state that good media is media that is easily accessible by students and teachers anywhere and anytime. Such as android or smartphone technology that is used as a learning media that can provide a learning material application that has efficient and effective impacts that learners can download related to the material required so that it can be repeated anytime studied alone (Jengathe & V. Rojtkar, 2015).

To assess the practicality of the Unex application in terms of ease of use, the researcher sought feedback from the English teacher at the Health Vocational School of North Borneo. The teacher was asked to complete a media practicality questionnaire specifically designed to evaluate the ease of use of the application. The questionnaire



included a series of relevant questions and statements related to the user interface, navigation, accessibility, and overall user experience of the Unex application. The questions in the media practicality questionnaire aimed to gather the teacher's perspectives and observations regarding the user-friendliness of the application. The teacher was asked to rate various aspects of the application's usability, such as the intuitiveness of the interface, the clarity of instructions, the ease of navigating through different sections or activities, and the overall ease of using the application for teaching English texts. The questionnaire may have also included open-ended questions or space for additional comments to gather more detailed feedback.

By involving the English teacher in evaluating the practicality of the Unex application, the researcher could gain valuable insights from an experienced user who would be directly using the application in the classroom setting. The teacher's feedback would provide valuable information on the application's ease of use and highlight any areas that may need improvement or further refinement. The feedback received from the English teacher through the media practicality questionnaire would assist the researcher in assessing and enhancing the usability of the Unex application. Based on the teacher's observations and suggestions, the researcher could make necessary adjustments to ensure that the application is user-friendly, intuitive, and accessible for both the teacher and the students. This iterative process of gathering feedback and making improvements would contribute to the overall practicality and effectiveness of the Unex application as a learning tool for English texts at the Health Vocational School of North Borneo. From the questionnaire that has been given, the ease of use of the *Unex* application obtained the following results:

“The Unex application makes learning time more effective and efficient. The Unex application is convenient and easy to access so that it can be used anywhere and anytime. The content of the Unex application is easy to understand. As a result, students can study independently according to their respective learning abilities with easy-to-understand language and clear and simple descriptions of material and questions. (FB, English Teacher)

From the results of media practicality regarding the ease of use of the *Unex* application, it can be concluded that the *Unex* application is practical and easy to use and make learning effective and efficient. In addition, the language used in preparing the material and questions are arranged, so it is easy to understand the contents of the entire material and questions in the *Unex* application.

The Application Layout Attractiveness

Media attractiveness plays a crucial role in the development of an application as it influences the users' level of interest and engagement. An attractive application design can captivate users' attention and create a positive user experience. Therefore, the researcher focused on ensuring the *Unex* application was visually appealing and engaging to enhance user interest and motivation. During the development process, the researcher utilized design principles and techniques to make the *Unex* application visually attractive. The use of appropriate color schemes, visually appealing images, clear typography, and visually consistent layouts were considered to create a visually pleasing user interface. Color schemes were carefully chosen to evoke a positive and engaging atmosphere. Vibrant and contrasting colors can be used strategically to draw attention to important elements and create visual interest. At the same time, the color choices should be consistent with the overall theme and purpose of the application. The selection of high-quality and relevant images was important in enhancing the attractiveness of the *Unex* application. The researcher ensured that the images used were visually appealing, meaningful, and related to the English texts being



taught. Visual elements, such as icons and illustrations, were also used to enhance the overall visual appeal and facilitate user understanding. Clear typography and legible font choices were employed to ensure that the text in the application was easy to read and understand. Font sizes and styles were carefully selected to enhance readability on different screen sizes and resolutions. Consistency in the layout and visual elements throughout the application was maintained to provide a cohesive and harmonious user experience. Consistent use of design elements, such as buttons, icons, and navigation bars, helps users navigate the application smoothly and intuitively. In addition, providing suitable pictures with the material will foster students' creativity (Suparman et al., 2020). Also, choosing the right colour in the media can encourage users to launch the application and improve performance when using the application (Diariono, 2008).

Therefore, the researcher asked the English teacher at the Health Vocational School of North Borneo to fill out a media practicality questionnaire to find out the practicality of the *Unex* Application in terms of attractiveness. From the questionnaire that has been given, the attractiveness of the *Unex* application obtained the following results:

"Unex application display design is interesting to see. With the combination of colours used that are proportional and the type of font that can be read clearly. The Unex application has been equipped with images and videos that follow the learning material." (FB, English Teacher)

From the results of media practicality regarding the attractiveness of the *Unex* application, it can be concluded that the *Unex* application has an attractive design with pictures and videos following the learning material. In addition, the colour combinations used are proportional and can be read clearly.

The Benefit

When developing a learning media, it is important to ensure that it benefits the users, particularly the students. One significant benefit that learning media can provide is the opportunity for students to practice higher-order thinking skills. These skills are essential in the 21st century and play a crucial role in preparing students for future success (Antara & Dewantara, 2022). Moreover, learning media that is utilized appropriately makes the learning process more effective and efficient (Puspitarini & Hanif, 2019). Therefore, the researcher asked the English teacher at the Health Vocational School of North Borneo to fill out a media practicality questionnaire to find out the benefits of the *Unex* Application for its users. From the questionnaire that has been given, the benefits of the *Unex* application are as follows:

"The Unex application helps students understand the material and trains students to solve problems and think critically. The Unex application can be used as a support for teaching activities in meeting the needs of the Independent Curriculum, namely by making the Unex application a reference to make students more active in learning." (FB, English Teacher)

In summary, the *Unex* Application has demonstrated its effectiveness in supporting English language learning. Media practicality results indicate that users benefit from an improved understanding of the material, enhanced problem-solving skills, and the development of critical thinking abilities. By providing interactive and engaging content, the application facilitates comprehensive comprehension of English language concepts. Through challenging exercises and tasks, users are encouraged to think critically and apply their knowledge in practical scenarios, thereby strengthening their problem-solving skills. Additionally, the *Unex* Application promotes critical thinking through thought-provoking activities that require analysis, evaluation, and interpretation of English language information (Ahmad, 2022). This cultivates learners' ability to think critically, express their opinions, engage in debates, and make informed decisions in English. Overall, the *Unex* Application



proves to be a valuable tool for learners seeking to improve their English language proficiency while honing their problem-solving and critical thinking skills (Rahim et al., 2022).

Conclusion

The Unex Application as English interactive learning media was well developed. It is evidenced by the validation day from media and material experts, all of which show a very feasible category. In addition, the Unex application also received many positive responses from the English teacher in its implementation. As an English interactive learning media, the Unex application can help students understand material about English text, incredibly descriptive and procedure texts, and trains students in problem-solving and critical thinking. Also, the interactive games in the Unex application make students more interested and enjoy the learning process.

Recommendation

Based on this study, the recommendations that can be given are as follows: English teachers are advised to integrate interactive learning media such as the Unex application, utilize it to enhance understanding of English texts, encourage active participation in problem-solving activities, and monitor student progress. On the other hand, learning media developers are recommended to continuously improve the Unex application based on feedback, expand the coverage of topics discussed, add more interactive games, collaborate with teachers, and provide regular updates and technical support. All of these efforts are aimed at enhancing English language learning for students.

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