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Interactive Multimedia Learning for Basic English Education

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ABSTRAK

Dalam proses pembelajaran, dosen memberikan stimulus, namun ada sebagian mahasiswa yang belum memberikan respon. Siswa merasa tidak fokus dalam belajar karena merasa tidak bisa menguasai penggunaan bahasa Inggris yang dipelajarinya. Berdasarkan hal tersebut, penelitian ini bertujuan untuk mengembangkan Multimedia Interaktif untuk Pendidikan Bahasa Inggris Dasar. Jenis penelitian yang digunakan adalah Research and Development. Model yang digunakan dalam pengembangan produk adalah ADDIE. Subyek penelitian adalah ahli media, desain, dan materi. Jumlah subjek tes sebanyak 43 siswa. Penelitian pengembangan ini menggunakan angket, wawancara, dan observasi sebagai teknik pengumpulan data. Instrumen pengumpulan datanya adalah angket. Teknik analisis data adalah analisis deskriptif kualitatif dan statistik kuantitatif dan inferensial. Hasil penelitian penilaian yang diberikan ahli media pembelajaran yaitu 3,2 (sangat baik). Ahli desain pembelajaran yaitu 3,3 (sangat baik). Ahli materi pembelajaran sebesar 3,2 (sangat baik). Rata-rata kepraktisan produk multimedia interaktif yang dikembangkan sebesar 94,5%, sesuai kriteria "Sangat Praktis. Uji keefektifan menunjukkan adanya perbedaan rata-rata hasil belajar siswa setelah menggunakan Multimedia Interaktif untuk Pendidikan Bahasa Inggris Dasar. dikatakan layak digunakan sebagai media pembelajaran dan dapat meningkatkan hasil belajar Bahasa Inggris Dasar .

ABSTRACT

Dalam proses pembelajaran, dosen memberikan stimulus namun sebagaian siswa tidak memberikan respon. Siswa merasa tidak fokus dalam pembelajaran karena merasa tidak bisa menguasai penggunaan bahasa Inggris yang dipelajari. Berdasarkan hal tersebut maka tujuan penelitian ini yaitu mengembangkan Multimedia Interaktif Pendidikan Bahasa Inggris Dasar. Jenis penelitian yang digunakan adalah Penelitian dan Pengembangan (penelitian dan pengembangan). Model yang digunakan dalam mengembangkan produk yaitu ADDIE. Subjek penelitian yaitu ahli media, desain, dan material. Jumlah subjek uji coba sebanyak 43 siswa. Penelitian pengembangan ini menggunakan angket, wawancara, dan observasi sebagai teknik pengumpulan data. Instrumen pengumpulan data berupa kuesioner. Teknik analisis data yaitu deskriptif kualitatif, kuantitatif dan statistik inferensial. Hasil penelitian yaitu penilaian yang diberikan oleh ahli media pembelajaran yaitu 3,2 (sangat baik). Ahli desain pembelajaran yaitu 3.3 (sangat baik). Ahli materi pembelajaran yaitu 3.2 (sangat baik). Rata-rata kepraktisan produk multimedia interaktif yang dikembangkan sebesar 94,5% dengan kriteria "Sangat Praktis. Uji efektifitas menunjukkan terdapat perbedaan rata-rata hasil belajar siswa setelah menggunakan Multimedia Interaktif Pendidikan Bahasa Inggris Dasar. Multimedia yang disimpulkan dapat dikatakan layak untuk digunakan sebagai media dalam pembelajaran dan dapat meningkatkan hasil belajar Bahasa Inggir Dasar.

1. INTRODUCTION

Foreign language teaching, especially basic English teaching, focuses on how students can follow all the languages that are formed (Hermansah, Riyoko, & Hidayad, 2020; Oktapiani, Asril, & Wirabrata, 2021). English language learning at STIAB Jinarakkhita Lampung is given in the first and second semesters with a credit load of 6. This course aims to provide students with skills in the world of English. English learning at STIAB focuses on the basic use of English. Learners of English as an FL (foreign language) are said to be successful if they are able to understand and apply several functions and uses of certain grammar

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in verbal or written form (Dini, 2022; Lestari, 2021). Apart from that, the use of language, in general, is for carrying out or communicating activities. In communication, there are two elements: the speaker and the listener; if, in communication activities, the listener and speaker understand each other, then the function of language can run well (Natalia & Setiawan, 2020; Oktapiani et al., 2021). A person's success in learning English is if the student or learner understands several skills, such as reading, writing, listening, and speaking, as well as three specific elements, including vocabulary, grammar, and pronunciation (Hotmaria, 2021; Novitasari, Prastyo, Iftitah, Reswari, & Fauziddin, 2022). The Grammar Translation Method (GTM) or general grammar learning method is studied by all students who are new to foreign languages, including English. The relationship between GTM and learner cognition in foreign language learning as a basic guide to avoid misunderstandings in the use of word type functions. Grammar is defined as a guideline for arranging words or phrases into sentences, either simple or complex, with the aim of conveying a message (Amelia, 2021; Santosa, 2017). The use of good grammar makes it easier for learners to communicate with native speakers and English users at all levels of society. On the other hand, the principle of successful language learning is to attract and develop (Hermansah et al., 2020; Yuliana, Susilaningsih, & Abidin, 2022a). This principle is in accordance with the principles of behavioral learning theory and constructivism, which state that learning outcomes are things that students receive through cognitive or cognitive skills, and students receive through certain cognitive skills in understanding or applying a particular literacy.

The use of English is different from Indonesian or the mother tongue, which STIAB Smaratungga students often use. In general, students experience certain confusion or difficulties in understanding changes in vocabulary used in learning English (Liyana & Kurniawan, 2019; Puspitasati, 2021). In the EFL context, because learners are not in a natural environment, the process of learning grammar becomes more difficult. Students' mistakes or inability to apply English using grammar give rise to several problems, including the following: misunderstanding between the speaker and the recipient of the message, causing a lack of confidence in communicating both formally and informally, and users tend to be more passive. Based on the results of observations, 39 students at Smaratungga Buddha High School needed to learn how to construct English sentences. On the other hand, students also need clarification regarding verb changes. In addition, when a teacher uses ESP, the curriculum is adjusted to the subject matter or students' level of understanding and is determined by the results of a needs analysis. This resulted in a number of problems with ESP instruction, the teacher's concern regarding the challenge of ESP, which was material design. Therefore, English lecturers are expected to have good innovation in organizing classes and materials for ESP students. One solution to optimize the learning process is to develop interactive multimedia, which can increase student motivation and learning outcomes.

The ideal learning process is for educators to use certain media to make learning more focused enjoyable, and increase students' interest in learning. Media can increase students' attractiveness. So, educators who are learning abstract subjects must be able to create certain innovations (Nurdini, Husniyah, Chusni, & Mulyana, 2022; Yolantia, Artika, Nurmaliah, Rahmatan, & Muhibbuddin, 2021). The use of multimedia in learning can provide the ability to create meaningful learning. This is in accordance with the objectives of constructivist learning theory, which shows that there are several abilities needed in constructing knowledge: the ability to remember and express experiences and the ability to compare and make decisions based on similarities (Apriyani, Rabani, & M, 2020; Waseso, 2018). Moreover, diversity is the ability to prefer one experience over another. Multimedia is a combination composed of human elements, materials, facilities, equipment, and procedures that mutually influence learning objectives, materials in the form of books, blackboards and chalk, slides and films, and audio and video cassettes (Abdurrahman, Jampel, & Sudatha, 2020; Geni, Sudarma, & Mahadewi, 2020). Multimedia is equipped with a controller that can be operated by the user so that the user can choose what he wants for the next process. Interactive multimedia can be a very effective tool in English language learning. By combining elements such as text, images, audio, video, and interactivity, multimedia can help students engage more actively in the learning process (Deliany, Hidayat, & Nurhayati, 2019; Dwiqi, Sudatha, & Sukmana, 2020).

Several previous studies stated that interactive multimedia is suitable and valid for use in the learning process (Anggreni, Jayanta, & Mahadewi, 2021; Arifin, Tegeh, & Yuda Sukmana, 2021). Interactive multimedia can increase student learning motivation (Anggraeni, Yayan, Prihamdani, & Winarsih, 2021; Wahyugi & Fatmariza, 2021). This can be seen from the classroom atmosphere, which has become lively and fun. Students learn enthusiastically and communicatively. With interactive multimedia, students can understand abstract concepts and receive the material presented by the teacher (Suryanto, Muhajir, & Kusmiyati, 2021; Susantini & Kristiantari, 2021). Other research states that the application of interactive multimedia can improve student learning outcomes (Dharmayani, Agung, & Wiyasa, 2022; Shaquille & Zen, 2023). The development of interactive multimedia in the form of YouTube as a novelty in this research aims to improve the results of other research related to YouTube multimedia so that it has a positive impact on improving learning outcomes, especially in English. Based on the problem of students' need for English

vocabulary skills, the solution offered is the development of interactive multimedia. This research aims to develop Interactive Multimedia for Basic English Education.

2. METHOD

The type of research used is Research and Development. Research and development are used to produce certain products and test their effectiveness. It is a process or steps to develop a new product or improve an existing product, which can be accounted for. In this research, researchers develop existing products. Not all steps were used due to several considerations that have been determined. The benefit of the ADDIE development approach is that it always starts with an evaluation phase, which allows it to minimize errors or deficiencies—no matter how small—immediately. This development research uses questionnaires, interviews, and observations as data collection techniques. Direct and systematic observation is carried out as part of the observation method, an assessment technique. Because observations are carried out directly in the field, the data collected through the observation method will be more accurate and difficult to debate because it is based on reality. The interview approach involves asking and answering systematic questions to collect data. The results of these questions and responses must be painstakingly and carefully recorded. By giving respondents a list of questions to answer in writing, the questionnaire method is a means of collecting data. The research location is STIAB Smaratungga, which has a total of 43 subjects or students. Apart from a number of semester students at STIAB Smaratungga, researchers also involved several parties to become test subjects for the products being developed. Three experts, including media, design, and material experts, evaluate this product. To collect data, researchers used questionnaires, interviews, observations, and tests. The next stage is to analyze the data with several conditions, including the following: Limited field trials are carried out using the product design in real conditions. The test design uses one group pretest and posttest. This analysis is used to measure hypotheses or test effectiveness. Data obtained from expert tests are analyzed using quantitative calculations. Data were analyzed using a before-after design: O1 X O2. This formula is used to measure students' effectiveness in using products and their ability to understand material in the media. Meanwhile, some assumptions and user responses were made using data triangulation.

3. RESULT AND DISCUSSION

Result

The conditions that occurred were a series of activities and problems in learning English, so researchers developed existing products. The existing products are considered difficult to understand because the material does not match the characteristics of first-semester STIAB Jinarakkhita students. A questionnaire was distributed to researchers to obtain information appropriate to the situation at the research location. The results of data analysis using simple calculations using Microsoft Excel are presented in Table 1.

Table 1. Percentage Results of Learning Problem Conditions

Statement 1	Statement 2	Statement 3	Statement 4	Statement 5	Statement 6
91.034	90.344	86.207	85.517	88.276	85.517

Table 1 is the result of data processing regarding the conditions of first or basic English learning problems. This statement was given to 33 students and answered with a rating option between 1 and 5. The results were processed using a simple formula. There are six indicators in the questionnaire statement: 1) Students still need to learn the types of words used in sentences, both orally and in writing. From the results of data analysis, a score of 91% was obtained from the total number of answers of 132, which came from the assessment responses of 33 students. The total answers obtained are presented to obtain a score of 91%, which means that in the indicator that students do not know types of words, there are serious problems. 2) The indicator that students have difficulty making sentences is the position of the analysis results, which is 90.34483% or rounded up to 90%, which was obtained from 33 students' responses or responses totaling 131. Apart from analyzing the conditions of learning problems, researchers also distributed questionnaires regarding needs analysis to 20 students. In distributing this questionnaire regarding needs analysis, not all students were involved due to conditions and circumstances. The students were selected randomly, and the data presented in Table 2 were obtained.

Table 2. Recapitulation of Needs Analysis Results

No.	Statement	Menanggapi	
		NO	Yes
1	I enjoy learning English, but I need help with learning difficulties, so I am not motivated to learn	8 atau 40%	12 atau 60%
2	My lecturer rarely uses various media in learning	5 atau 25%	15 atau 75%
3	My lecturer only uses PowerPoint and books	5 atau 25%	15 atau 75%
4	The media used needed to be neatly arranged, so I needed clarification about how to study it	15 atau 75%	5 atau 25%
5	I want the media in learning English to be not just one but varied	7 atau 35%	13 atau 65%
6	I need multimedia in learning so that it influences my learning	6 atau 30%	14 atau 70%
7	I am more motivated to learn using varied media because the material or concepts are easier to understand or practice	5 atau 25%	15 atau 75%

Table 2 above is a table describing the needs analysis regarding the reasons why multimedia is used as a solution in research to overcome the learning difficulties of first-semester students at STIAB Smaratungga. In the needs analysis test, which is used as the basis for product development, there are seven indicators or statements: 1) Students enjoy learning English but experience problems with motivation. This statement was given to 20 students, and 12 students gave positive responses (60%), while 8 students gave negative responses (40%). 2) The second statement regarding media that is less varied during learning was that 15 students answered with positive responses, or 75%, and 5 students answered with negative responses, or 25%. 3) The third statement is about PowerPoint as the main media for learning English. In this statement, there were 15 students, or 75% of the 20 students, who responded (yes) or agreed that in every learning meeting, the media only uses power points. Meanwhile, 5 students did not agree with this statement.

Apart from these three statements, researchers also provide input regarding the fourth 4) Lecturers provide material through the media, but it needs to be better designed. In this statement, 15 students answered no. The lecturer provided the material through the media well, while 5 other students stated that the material packaged in the media could have been better. 5) The fifth statement is students' desire for varied media in one media. 13 students said they needed it, while 7 students answered passively or did not need it. 6) The sixth statement regarding multimedia and the influence of student learning outcomes on basic English education materials. In this sixth statement, of the 20 students who agreed, 14 students and 6 students said they disagreed. 7) The final statement is about the attraction and motivation for the existence of multimedia media. In this statement, 5 students disagreed, and 15 students agreed. The next step is validation testing. Validation tests are used to assess products according to their expertise. In practice, media experts study the content of multimedia. The first aspect of the indicator is regarding the suitability of the content. The validation test results from media experts obtained data in Table 3.

Table. 3. Data from the Feasibility Assessment of Content Feasibility Aspects by Media Experts

No.	Statement	Score	Criteria
1	Suitability of media and student understanding	5.00	Very Good
2	Suitability of existing media content on learning themes with English learning objectives	5.00	Very Good
3	Suitability of learning multimedia with indicators	4.00	Good
4	Correctness of material concepts in learning media	4.00	Good
5	Suitability of learning activities	4.00	Good
6	Suitability of benefits to increase knowledge insight	4.00	Good
7	Suitability to the needs of English learning media	4.00	Good
8	Activities related to student attitudes and skills	5.00	Very Good
9	Activities related to knowledge	5.00	Very Good
10	Skill-related activities	4.00	Good
Overall Score		**44,00**	
Overall Average		**4,4**	**Good**

Table 2 presents the results of validation by media experts on indicators of content suitability aspects. In this table, there are 10 instruments given by the validator to be assessed, and the following data is obtained: 1) there are six instruments that are rated with a score of 4.00 and are in a good category. In comparison, the four instruments are rated as very good, with a score of 5.00. After that, the researcher

added up all the assessment results and obtained a total score of 44.00, then divided it by the number of instruments and obtained an average score of 4.4, so the content feasibility indicator is within the appropriate criteria good category. The second indicator is the linguistic aspect of multimedia. This aspect needs to be assessed because it describes the readability of the writing, the prevalence of terms, and several other things. The results of the expert validator assessment are presented in Table 4.

Table 4. Assessment of linguistic Aspects by Media Validators

Statement		Criteria
Text Readability	5.00	Very Good
Prevalence of terms used	5.00	Very Good
Prevalence of symbols used	4.00	Good
Clarity of learning objectives	4.00	Good
Conformity with Indonesian language rules	4.00	Good
Use of language that does not give rise to multiple interpretations	5.00	Very Good
Clarity on how to use learning media	5.00	Very Good
Overall score	**32.00**	
Overall Average	**4.57**	

Media experts assess data on linguistic aspects with several conditions. These provisions include the quality of the multimedia developed to present language that suits the characteristics of STIAB Smaratungga Boyolali students. In Table 4, all instruments were assessed with a total score of 32.00. This value is determined by the level of appropriateness of the indicators, so the researchers give an average of 4.57 and indicate that they are in the adequate or good category. The fourth indicator is the presentation aspect in multimedia. This aspect needs to be studied because it describes the scope of several presentation media or types of multimedia in accordance with the provisions. The results of the expert validator assessment are presented in Table 5.

Table 5. Presentation of Material in the Media

No.	Statement	Score	Criteria
1	Multimedia and students' ways of thinking	5.00	Very Good
2	Image presentation	5.00	Very Good
3	Multimedia presentation and student characteristics	4.00	Good
4	Multimedia Equipment	4.00	Good
5	The interactivity of student learning with multimedia	4.00	Good
6	Multimedia and students' ways of thinking	5.00	Very Good
	Overall Score	**27.00**	
	Overall Average	**4.5**	**Very Good**

Based on the results of the assessment provided by media experts. In this indicator, six indicators are assessed, as can be seen in Table 5. The researchers added up the six instruments and obtained a total score of 27.00 and an average score of 4.5. This score level is a good number, and the indicator regarding media presentation is appropriate for use in learning. In practice, material experts study the content of multimedia. The first aspect of the indicator is the Assessment of Material Consistency with the results presented in Table 6, and Table 7.

Table 6. Material Validation on Material Consistency Indicators

No.	Statement	Media Expert	Criteria
1	The material is presented sequentially in multimedia in accordance with English language learning principles	4.00	Good
2	The material presented starts from easy material and moves to the next level	4.00	Good
3	Presentation of material in multimedia is in accordance with the basic design of English language learning	4.00	Good
4	The material examples are very clear	5.00	Very Good
5	The material presented in Multimedia teaching materials is adapted to students' abilities to understand grammar	5.00	Very Good

No.	Statement	Media Expert	Criteria
6	The material presented in the media is developed sequentially, starting with definitions, formulations, vocabulary, and example sentences that are neatly arranged	5.00	Very Good
7	The examples presented are simple, and the evaluation or practice inspires forming sentences independently	5.00	Very Good
	Overall Score	**32.00**	**Very Good**
	Overall Average	**4.57**	**Very Good**

Table 7. Media Expert Statements

No.	Statement	Media Expert	Criteria
1	Text Readability	5.00	Very Good
2	Prevalence of terms used	5.00	Very Good
3	Clarity of learning objectives	4.00	Good
4	Conformity with Indonesian language rules	4.00	Good
5	Use of language that does not give rise to multiple interpretations	5.00	Very Good
6	Clarity on how to use learning media	5.00	Very Good
	Overall Score	**32,00**	

Media experts assess data on linguistic aspects with several conditions. These provisions include the quality of the multimedia developed, which presents language that suits the characteristics of STIAB Smaratungga Boyolali students. In Table 7, all instruments were assessed with a total score of 32.00. This value is determined by the level of appropriateness of the indicators, so the researchers give an average of 4.57 and indicate that they are in the adequate or good category. Design expert validation data was obtained using a Likert scale questionnaire with five scales. In practice, design experts try to use and review the product and then provide assessments, comments, and suggested revisions regarding the product. The results of the feasibility assessment of the developed multimedia design aspects are presented in Table 8.

Table 8. Feasibility Assessment Results Data on Multimedia Design Aspects

No.	Statement	Score	Criteria
1	The image printed on the outer cover corresponds to the material to be conveyed	5.00	Very Good
2	The size of the letters and images, as well as the duration of the video, are appropriate	5.00	Very Good
3	Font selection affects multimedia identity and student attraction	4.00	Good
4	Font size in Multimedia identity with student psychology	4.00	Good
5	The numbering is correct	5.00	Very Good
6	Organizing each piece of material in multimedia.	5.00	Very Good
7	Writing in multimedia and student engagement in learning	5.00	Very Good
	Overall Score	**33.00**	**Very Good**
	Overall Average	**4.77**	**Good**

Data for assessing aspects of multimedia design at the validation stage were obtained from media expert assessments. Based on Table 8, it is known that the multimedia developed in terms of the feasibility aspect of multimedia design obtained an average score of 4.77. The media expert's assessment of the multimedia design aspect is in the "good" category. The second indicator is the content design aspect or multimedia content. This aspect needs to be used as an indicator because each product during the design validation test provides an assessment. The content aspect elements are used as the basic concept of why the product is said to be feasible. Experts state that content is the most important design element so that pupils or students can use it well and easily. Based on the results of validation tests with design experts, the data presented in Table 9 was obtained.

Table 9. Content Validity of Media

No.	Statement	Score	Criteria
1	Images and emotional students	5.00	Very Good
2	The material presented is in accordance with the learning objectives	4.00	Good

3	The material is in accordance with the STIAB Smaratungga English language education syllabus	4.00	Good
4	The material presented includes the introduction of concepts to interactions between concepts and their application	5.00	Very Good
Overall Score		**18.00**	**Very Good**
Overall Average		**4.5**	**Very Good**

The design expert's assessment of the content aspects based on Table 9 shows that the multimedia developed in terms of the appropriateness of the content aspect received an average score of 4.5. The design expert's assessment of the content aspect is in the "very good" category. The next indicator assessed by design experts is the feasibility of the student needs analysis aspect. The second indicator is the content design aspect or multimedia content. This aspect needs to be used as an indicator because each product during the design validation test provides an assessment. The content aspect elements are used as the basic concept of why the product is said to be feasible. Experts state that content is the most important design element so that pupils or students can use it well and easily. The results of validation tests on design experts obtained data, which can be seen in Table 10.

Table 10. Design Expert Assessment Results

No.	Statement	Score	Criteria
1	Material design and sub-material coherence	4.00	Good
2	Design for clarity of material and student understanding	4.00	Good
3	Material design from easy to more difficult levels	4.00	Good
4	Enough space to answer questions	4.00	Good
Overall Score		**16.00**	**Good**
Overall Average		**4.0**	**Good**

The assessment of the student needs analysis aspect from the design experts presented in Table 10 shows that the multimedia developed in terms of the feasibility of the student needs analysis aspect obtained an average score of 4.0. The design expert's assessment of the student needs analysis aspect is in the "good" category. Based on the results of field trials conducted on fifth-semester students of STIAB Jinarakkhita. At this stage, students respond to the product being developed through a questionnaire. Based on the results of data analysis, with 10 instruments filled in by 5 students, 35 people chose the "very good" category, 15 people chose the "good" category, and 1 person chose the "fair" category is selected. The test criteria were obtained from students with an average score of 4.7. To find out whether the product used was effective, researchers conducted a field test on ten students. This test is carried out by selecting students with media, low, and high abilities. Meanwhile, this limited field test activity was carried out twice. The first was a trial using the product being developed, interactive multimedia. The second used previous media. The results of the data analysis can be seen in Table 11.

Table 11. Student Learning Outcomes after and before using Multimedia were Developed

Student Characteristics	Before using multimedia	After using Multimedia
High Level	76	85
High Level	75	80
High Level	78	80
Intermediate Level	68	79
Intermediate Level	68	80
Intermediate Level	65	78
Intermediate Level	65	80
Low Level	50	75
Low Level	50	74
Low Level	60	75
Average	**65.5**	**78.6**

The first test in Table 11 shows a significant change. Researchers conducted the first trial using previous media, books, films, and other short videos to teach basic English education. The time used is three meetings. After the topics discussed were implemented, a test was held, and the average score obtained was 65.5. Meanwhile, the highest score was 78, and the smallest score was 50. To prove changes in learning outcomes, researchers used multimedia that was developed, and the time required was around two

meetings. Based on the results of trials on a limited group, after using the product, an average score of 78.6 was obtained. Meanwhile, the highest value was 85, and the smallest value was 74. The change in value was considered very significant, so it could be concluded that the first trial of the product was in line with expectations. In the second trial, researchers used multimedia and previous media. In this trial, 43 students were given before and after treatment. After the values were obtained, researchers processed the data using a simple SPSS application. The results of data processing can be seen in Table 12, Table 13, and Table 14.

Table 12. Data Processing Results Can be Seen in Paired Sample Statistics

			N	Std. Deviation	Std. Meaning of Error
First Pair	Pretest	66.49	43	5.629	0.858
	Posttest	79.58	43	2.332	0.356

The results of data processing are shown in Table 12, which is a summary of the results of descriptive statistics from the two samples tested, the values before and after the use of the product being developed. The average value in the trial before using the product was 66.49. Meanwhile, product use obtained an average value of 79.58. The number of respondents in this trial was 43 students. In the table, there is an Std Deviation value that shows the changes before and after, 5.629 to 2.332. Meanwhile, the mean std error value obtained before was 0.858 and after 0.356. The change in the average score from 66.49 to 79.58 is proof that the product developed is very good and has an impact. The data correlation can be seen in Table 13.

Table 13. Paired Sample Correlations

		N	Correlations	Signature
First Pair	Prates & Pascates	43	0.215	0.165

Table 13 shows the results of processing paired sample correlation data. It shows the results of the correlation test or relationship between the two data before and after using the product in the form of interactive multimedia. Based on these results, the correlation coefficient value is 0.215. This value is greater than the minimum requirement, 0.05, so it can be concluded that product use is related to learning outcomes.

Table 14. Paired Sample Test

		Pair Differences					T	df	signature. (2-tail)
		Berarti	Std. Deviation	Std. Meaning of Error	95% Confidence Interval of the Difference				
					Lower	Above			
First Pair	Pretest - Posttest	-13.093	5.610	0.855	-14.819	-11.367	-15.305	42	0.000

Table 14 is a determinant of whether a previously determined hypothesis is accepted or rejected. Based on the table, it is known that the sig (2.-tailed) value of 0.000 is less than 0.05, so h0 is rejected. So, it can give an idea of changes in meaning after using products developed with previous media, especially for basic English education. In addition, the table provides information on the average pairwise difference of 13.093, while the confidence that the determination of this trial is accepted is 95%. The results of the Recapitulation of Product Practicality Levels can be seen in Table 15.

Table 15. Results of Recapitulation of Product Practicality Level

Data source	Score	Assessment Criteria
The Lecturers	92.5 %	Very Practical
Limited Field Test	98.3%	Very Practical
Second Limited Field Test	92.7%	Very Practical
Overall Score	**283. 5**	
Average	**94.5 %**	**Very Practical**

The practicality of interactive multimedia based on the teacher questionnaire obtained 92.5% with the "Very Practical" criteria, the individual test obtained 98.3% with the "Very Practical" criteria, and the field trial obtained 92.7% with the very practical criteria. The average practicality of the interactive multimedia products developed is 94.5%, with the criteria "Very Practical" so that multimedia products can be said to be suitable for use as media in learning.

Discussion

Based on the research results showing that with respect to text affordances and their customizable settings for font size and color (i.e., enhanced video captions), this study extends research in this area by exploring the potential role and impact of YouTube multimedia affordances as ICT multimedia learning. The average practicality of interactive multimedia products is developed to have very practical criteria, so multimedia products are suitable for use as media in learning. Multimedia learning is used as additional teaching material, meaning that what determines to learn is not the media product but all the other elements. The use of multimedia as additional teaching material can motivate students (Kadek, Ardiani, Agung, & Agung, 2022; Pratiwi & Wiarta, 2021). Previous research has focused on the advantages of ICT multimedia resources such as YouTube in terms of their function and influence on the growth of ESL/EFL receptive and productive abilities.

The development of multimedia in this research places special emphasis on developing EFL students' writing accuracy. The quantitative results about the personal experiences of the learners in terms of the benefits obtained from the actual use and the potential benefits of the enhanced text of the multimedia tools developed for the development of EFL writing accuracy clearly reveal that the regular use of ICT multimedia tools such as the availability of videos with captions and their settings can adapt (e.g., enhanced text) plays a positive role in the development of writing accuracy in EFL writing. With the help of interactive multimedia, learning about EFL writing feels more fun (Ayu, Setya, & Ganing, 2022; Yuliana, Susilaningsih, & Abidin, 2022b). Starting with the learner (learners) focuses the learner's attention on the (new) target language input, helps them clearly identify errors or gaps, and encourages them to make intentional comparisons between their output and the target language input. Furthermore, they increase students' ability to handle more information in their working memory, improve their understanding of spoken language input, and store these details in their long-term memory for later use (Aziezah, 2022; Yuliatiningsih, Harjono, & Budiyono, 2022).

The use of multimedia developed for first-semester students at STIAB Smaratungga Boyolali has had a positive impact. The use of Interactive Multimedia can improve learning outcomes. Teachers and students respond well to any combination of media, including text, audio, graphics, photos, videos, and interactive questions that they can manage (Susantini & Kristiantari, 2021; Yuniarni, Sari, & Atiq, 2020). The use of developed multimedia influences changes in students' better mastery of English sentences. Even students with the lowest abilities can change and improve their English learning by using this media. The way to provide English education to those with low abilities is to provide stimulus through simple tasks and understanding through products (Hotmaria, 2021; Puspitasati, 2021). When English lecturers at Smaratungga teach, they combine multimedia and several other media. This can make it easier for students to learn. Interactive multimedia plays an important role in English language learning, as it can provide opportunities to enhance students' learning experience.

With the development of interactive multimedia, material presented in interesting and varied formats, such as video, audio, and interactive games, multimedia can help increase student involvement in English language learning. When students are involved, they will create an active and fun classroom atmosphere, which will help overcome boredom and increase motivation to learn. Using interactive multimedia, such as displaying visual media, can help improve students' understanding of vocabulary and grammar (Damayanti & Kristiantari, 2022; Shaquille & Zen, 2023). This allows students to learn more effectively through experiences that combine text, images, and audio. Another advantage is that multimedia for interactive learning is easy to use (Cris & Dwiqi, 2020; Ragin, Magdalena, & Puspita, 2022). Students can access a variety of multimedia resources, such as applications, websites, and interactive e-books. This affects increasing students' learning independence. Students can learn English independently outside the classroom. This will cause students to learn more calmly and relaxed. With interactive multimedia, students are able to follow the learning well and provide feedback that is in accordance with the learning objectives.

Several previous studies stated that interactive multimedia is suitable and valid for use in the learning process (Anggreni et al., 2021; Arifin et al., 2021). Interactive multimedia can increase student learning motivation (Hendra, Wijaya, Studi, Pendidikan, & Ganesha, 2020; Wahyugi & Fatmariza, 2021). This can be seen from the classroom atmosphere, which has become lively and fun; students learn enthusiastically and communicatively. With interactive multimedia, students can understand abstract concepts so that they can receive the material presented by the teacher well (Suryanto et al., 2021; Susantini

& Kristiantari, 2021). Other research states that the application of interactive multimedia can improve student learning outcomes (Dharmayani et al., 2022; Shaquille & Zen, 2023). Based on other research findings, presenting material that is clear, visually attractive, and easy to use will increase students' willingness to learn and improve their academic achievement. Apart from making learning more creative, the integration of digital media into the curriculum will really help bridge the gap in students' learning. Receive their education. This research implies that teachers and lecturers can use learning strategies and media that are able to increase students' learning activities and motivation so as to create active and innovative classes.

4. CONCLUSION

This research aims to develop and test experts. Based on the description of the results and discussion, researchers can conclude that the use of multimedia in learning can provide the ability to create meaningful learning. This is in accordance with the objectives of constructivist learning theory. There are several abilities needed in constructing knowledge: the ability to remember and express experiences, the ability to compare and make decisions on similarities and differences, and the ability to like an experience. The average practicality of the interactive multimedia products developed has the criteria "Very Practical" so that multimedia products can be said to be suitable for use as media in learning.

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