The Design of Multimedia in Storytelling

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Abstract: This study employed a qualitative approach. The goal of this development research includes two pieces of information: (1) the problem that needs to be solved and (2) the details of the model, problem, or technology that will be created to do so. The use of multimedia in English instruction is crucial for the teacher in assisting students in learning new concepts and language proficiency. The qualitative method was applied in this investigation. The research employed the Borg and Gall (2007) cycle for educational research and development, which is modified into five steps: (1) information collecting and research; (2) planning; (3) preliminary product development; (4) preliminary field testing; and (5) primary product revision. There are still plenty of fascinating debates that you could find interesting. There are still a lot of exciting conversations to be had, and it could be interesting to learn the reality of how multimedia is being used in English language instruction, particularly in storytelling. 30 pupils from SMK Mitra Karya Mandiri Ketanggungan-Brebes made up the participant data. It was completed in two weeks, from April 1 through April 16, 2022. 30 students from the tenth class participated in this study. The data collected are the most persuasive. The goal of this study, which the students carried out at SMK Mitra Karya Mandiri Ketanggungan-Brebes in Central Java, Indonesia, is to determine how multimedia is used throughout the first phases of English language instruction. The process used in this study is to develop and validate instructional goods. It is development research (R & D). The researcher gathered the literature review, gave out questionnaires to the students, and spoke with a teacher of English. The researcher first gave the students the questionnaires after compiling the literature review. Thirty students responded to the questionnaires. The study's findings demonstrate that digital storytelling can be used to teach narrative. The medium must serve a communicative objective and appeal to the students. Students are also enthusiastic about using digital storytelling to teach them about narrative. As a result, digital storytelling is made to support kids in developing their reading, speaking, listening, writing, and vocabulary skills.

Keywords: Development research, Multimedia, Storytelling

Introduction
One of the most established subtypes of research nowadays is research development, sometimes known as research and development (R&D). One sort of research that can bridge the gap between fundamental and applied research is development research. Development, often known as research and development (R&D), is the process or series of actions used to create a new product or enhance an already existing one. The term "product" in this context refers to both hardware (books, modules, learning aids for
classrooms and laboratories) and software (programs for data processing, classroom learning, libraries, or laboratories, or models), as well as models. - education model, instruction, direction, assessment, management, etc.

According to Gay (1990), research and development (R&D) serve as a specific endeavor or strategy to develop a product that is effective for use in schools rather than to challenge theories. However, Borg and Gall (1983:772) define the term "plagiarism in business" as follows: Educational Research and development (R & D) is a process used to develop and validate educational products. The steps of this process are usually referred to as the R & D cycle, which consists of studying research findings pertinent to the product to be developed, developing the products based on these findings, field testing it in the setting where it will be used eventually, and revising it to correct the deficiencies found in the filed-testing stage. In more rigorous programs of R&D, this cycle is repeated until the field-test data indicate that the product meets its behaviorally defined objectives.

Richey and Nelson (1996) distinguish between two categories of development research, the first of which focuses on designing and evaluating a specific product or program with the intention of gaining an overview of the development process and researching the factors that support the program's implementation. The second area of inquiry was the evaluation of the earlier development program. This second type's goal is to provide an overview of efficient design and evaluation practices.

Considering the aforementioned viewpoints, it can be said that development research is a method used to create and assess educational products. Products made include media, questions, learning materials, teacher training resources, and learning management systems.

According to Akker (1999), the curriculum, technology and media, lessons and instructions, and didactic teacher education are the development characteristics that identify the goals of special development research in the field of education. So, the English teachers typically need multimedia. It will inspire the students. They could be interested in materials for studying English. They engage students' skills while also comprehending the material. They can also get learning inputs from specific media. Because they can enhance and support student learning, media are employed in classrooms. According to Rowntree (1974) and Trucker (1983), there are six purposes for media in education. It is possible to employ a wide range of media to support the lesson. Traditional teaching tools like board games and graphics are popular among some educators. But as technology has advanced recently, some educators are also using a digital platform to create new media. According to Barrett, 2006; Dreon, Kerper, & Landis, 2011; and Meadows, 2003, there is a significant shift happening among the younger generation, according to a growing body of literature on the effects of technology on learning and education.

According to Moeller, & Reitzes (2011), pupils of the twenty-first century alter their approach to learning. The roles of students and teachers will be drastically altered by student-centered learning. Students are more engaged and responsible learners in surroundings that are focused on them. They work to identify and pursue their individual academic and professional interests, and they create genuine, high-caliber work to showcase their learning. It implies that students' duties have altered dramatically.

The goal of development research typically includes two pieces of information: the problem that needs to be solved and the details of the model, learning, issue, or gadget that will be created to address the problem. The formulation of a problem for development research is sound as long as these two elements are included. One may say that the goal of development research is to assist in making decisions on the creation of a product and the developer's capacity to produce items of this nature in the future.
Method
This study employed a qualitative approach. The instructional design approach developed by Kemp Isman (2011) and the cycle of educational research and development by Gall, Gall, and Borg were both modified by the researcher. To conduct this research, the researcher also goes through a number of processes known as the R&D cycle. SMK Mitra Karya Mandiri Ketanggungan as one of Brebes's public schools hosted the research. The subject of this research and development includes two subjects. The first subject is the validator, which consists of two material and media expert lecturers and two English teachers to assess the product results. The second subject is tenth grade student of SMK Mitra Karya Mandiri Ketanggungan-Brebes, which consists of 30 students learning using Multimedia in storytelling based on a scientific approach.

Data from surveys and interviews, both qualitative and quantitative, were used to examine the data. Data from the research were assessed using quantitative data analysis, along with some information that was presented as qualitative data analysis and data from early field testing. The findings from the library study were identified, and a strong framework for the research was developed based on the underlying theory and the principles of design development.

The research will use a questionnaire to gather information based on the interests and skills of the pupils. The participant data from 30 students are the most convincing data collection. Three open questions and seven closed questions total. The presentation includes the findings from classifying their responses. By gathering information, the researcher can accurately gather data. Discussing the suggestion in a specific manner and conducting comparisons can assist in getting the data researcher into production.

Findings and Discussion
Researcher did the research at SMK Mitra Karya Mandiri Ketanggungan-Brebes. It was done in two weeks, on 1st April 2022 until 16th April 2022. The participants of this research were 30 students from the tenth class. The researcher first gave the students the questionnaires after compiling the literature review. After the data was gathered, students were given questionnaires to complete. As correspondents, there are 30 students present. Tables 1 and 2 include the questionnaire's results.

Table 1. Learners' Questionnaire Summary

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>1</td>
<td>I learned everything I could about a narrative text from this.</td>
<td>100 percent</td>
</tr>
<tr>
<td>2</td>
<td>I have access to digital/technology</td>
<td>100 percent</td>
</tr>
<tr>
<td>3</td>
<td>My teacher mostly employs digital media in the learning narrative.</td>
<td>100 percent</td>
</tr>
<tr>
<td>4</td>
<td>I want to learn how to tell stories utilizing digital media.</td>
<td>87 percent</td>
</tr>
<tr>
<td>5</td>
<td>Do you believe using digital media will aid in your learning of narrative?</td>
<td>100 percent</td>
</tr>
<tr>
<td>6</td>
<td>Do you have any experience with digital storytelling?</td>
<td>93 percent</td>
</tr>
<tr>
<td>7</td>
<td>Do you have any experience using digital storytelling tools?</td>
<td>100 percent</td>
</tr>
</tbody>
</table>
In the even semester, students in the seventh grade studied narrative text. Access to technology and digital media is simple. They occasionally dislike studying narrative literature. However, 87 percent of pupils are interested in following it when using digital storytelling tools. For the 13% of students who don't want to use digital storytelling, nevertheless, they want to learn it from the 93% of students who said they did. Digital storytelling is used to enhance learning. When asked closed and open questions about their knowledge of narrative utilizing a digital storytelling system, they were looking for the 7% of students who do not comprehend this subject.

Other questions that reflect their opinions about digital storytelling can be derived from asked closed and open questions. The purpose of this study is to learn what they think about narrative learning, the components of digital storytelling, and their own narrative expertise. Based on the survey's findings from the opening illustration of the supporting details in digital storytelling.

![Figure 1. Digital Storytelling Components](image)

In the graph above the top chart, three categories—the third storyteller (23 percent) and the second storyteller (26 percent)—show the highest percentage by far (22 percent). It demonstrates that students view the third factor as being essential to digital storytelling because other information from various categories, such as sound effects (15 percent) and duration, are less necessary (13 percent). The activity that students enjoy in a narrative text with storytelling is depicted in the following image.

![Figure 2: Learning Narrative Activities](image)

The majority of students prefer reading as the primary activity (43 percent). Speaking (17 percent), listening (26 percent) and writing (13 percent) are the next three activities (13 percent). The researcher would use the two most important categories—reading and listening—when creating the exercises. The following graph details the knowledge that students should be expected to learn.
The last question on this survey is about knowledge. The findings of the data collected show that 33 percent of students learn about English tenses. In English, narrative text makes use of it. Data and classifications demonstrate that vocabulary (28 percent) and language elements (22 percent), as well as general narrative structure (17 percent).

After distributing the questionnaire, the researcher had an interview with an English teacher to ask the question. The researcher is now conducting the semi-structured interview. The interview consists of seven questions, and the teacher's narrative text is used as the basis for the conversation. In the even semester, it returns. The information was distributed to the students in accordance with the academic program. However, when the material is implemented using standard techniques. Teachers frequently employ conventional techniques like role-plays or riddles. However, it incorporates digital media into the teaching process in some classrooms. In this narrative learning activity, there are various moving pictures that will catch their attention, specifically videos or films. With the digital storytelling technique, the teacher makes use of instructional technologies. Students' reactions to following the plot in this way have been incredibly positive. Most people are enthused and focus on storytelling activities. However, the teacher has found that using digital storytelling media as a warm-up tool in the classroom works better. The instructor will continue to include digital storytelling into his teaching methods even though he does not support using it as the main instructional medium in the classroom.

**Initial Product Development**

The learning medium is developed further by the researchers in this study. At this point, the researcher creates worksheets for the students and a lesson plan (Registered Pension Plan). In digital storytelling learning, a summary of this learning data appears in the teacher's manual. Based on the fundamental skills listed on the students' worksheets, a desire to study English, particularly reading and listening abilities, develops.

After creating the objectives, overarching objectives, and themes, the researcher creates a media design. Digital storytelling is used in this course to blend narrative text and narrative art. This research demonstrates how to load narrative stories as audio, video, and image files. Digital storytelling has been used to study seven different aspects, including point of view, dramatic questions, emotional content, sound, soundtrack power, economy, and tempo (Robin, 2008). Students can better understand the plot of narrative texts with the aid of this digital storytelling. Scripts and graphics are uploaded to the Powtoon website. The Powtoon application is an online-based animation video tool that is relatively easy and can be used by teachers. The outcome of YouTube uploads of digital media follows. There are already subtitles and a full guide. And the instructor makes use of this as a manual for teaching digital storytelling.
According to Majid (2008), LKS refers to sheets of paper containing assignments for students. It usually has instructions to work on the problem. The LKS design is used to create the research material. Additionally, there is supplemental information for studying digital storytelling. Based on the findings and the data she had obtained, the researcher created an activity plan. A few students preferred reading assignments. This information is derived from the survey's findings. They favor activities above reading and listening. Reading and listening exercises make up the series of exercises employed in the design.

**Evaluation Comments**

Two specialists and one English teacher provided feedback on the lesson plans and worksheets, and the researcher then gave the correspondents questionnaires to complete. There are three open questions and seven closed questions in total. The evaluation will be very beneficial for creating new courses. According to the statistics, it can be said that this evaluation is just the start and needs to be worked upon. What information and data are appropriate for student narrative learning can be found here. Correspondence in teaching in the classroom is also based on experience and expertise.

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Amount of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>1</td>
<td>The intended medium has already been used Students' needs</td>
<td>0 0 50 percent 50 percent 0</td>
</tr>
<tr>
<td>2</td>
<td>The media were created to be in line with the curriculum at the school</td>
<td>0 0 0 100 percent 0</td>
</tr>
<tr>
<td>3</td>
<td>The media that was created was communicative</td>
<td>0 50 percent 0 50 percent 0</td>
</tr>
<tr>
<td>4</td>
<td>The media's duration is appropriate for a lesson in a classroom.</td>
<td>0 0 33,3 percent 66,6 percent 0</td>
</tr>
<tr>
<td>5</td>
<td>The created media is intriguing</td>
<td>0 0 0 100 percent 0</td>
</tr>
<tr>
<td>6</td>
<td>The story components that were covered by the media</td>
<td>0 0 0 100 percent 0</td>
</tr>
<tr>
<td>7</td>
<td>The media's material is appropriate for instructing narrative</td>
<td>0 0 33,4 percent 66,6 percent 0</td>
</tr>
</tbody>
</table>

According to this evidence, all design media are effective and adhere to story learning. Despite the fact that the media is already communicating, the journalist claims that it is performing a monologue. Content and learning are suited for classroom activities, and teachers can teach students compelling narratives using a digital storytelling system. It is based on the suggestions and opinions of related learning media. They also list the media's advantages and disadvantages. The following table, which is based on an evaluation created by the correspondent, explains the effectiveness and medium of digital storytelling.
Table 3. Shows Information about the Media's Strengths and Flaws.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The studio is clear; the transition from one slide to the next is good, and the pictures are very clear;</td>
<td>1. Less communication occurs during instruction, and monologue performances are more common.</td>
</tr>
<tr>
<td>2. The duration is appropriate for a brainstorming session</td>
<td>2. Before beginning the story, check the sentences. There are no exercises or activities to help students recognize the text's generic structure, and there isn't a voice heard at the beginning of any sentences.</td>
</tr>
<tr>
<td>3. The material is interesting for a brainstorming session;</td>
<td></td>
</tr>
<tr>
<td>4. Designed media is interesting</td>
<td></td>
</tr>
<tr>
<td>5. The story has promoted local culture in learning English</td>
<td></td>
</tr>
</tbody>
</table>

**Product Revision – Main**

According to the data, the correspondents gave a good review of the media presentation, and the questions are more stimulating for brainstorming exercises. Even though there are still issues, it appears even better. When students first start writing narratives, they still have a lot of errors, such as missing punctuation. The researcher did, however, offer editing for their writing flaws.

The majority of those surveyed concurred that the media is appropriate for teaching English through narrative materials. One respondent did note one recording, though, where the voice and spoken narration required work. There are several incomplete sentences, the loudness fluctuates, and the voice is unclear. In addition, certain statements are more powerful than others. Articles like "the" and "an" are less obvious from the recording. A fresh recording was made from a number of existing issues, including narrative annotations to take it into consideration. It aids in the replacement of less volume-consistent recordings.

The majority of respondents provided positive feedback on this issue, stating that the content was appropriate for students. Some commenters advise the author to include a generic structure native. Students will have a deeper understanding of narrative literature in this manner. "Write the main structure of the story using your sentences," is additional content. It seeks to help students comprehend the structure of narrative texts more fully based on this question. Additionally, it teaches kids how to rewrite a story using the appropriate tense.

**The Public Representation**

Making object models in 3D and 2D on a computer is a process known as modeling. The model may take the shape of living or inanimate objects, for representations of living things like people, animals, or plants, automobiles, houses, dolls, and other inanimate objects. The scale and dimension of the design/model must correspond to the object, and the model must have all necessary details. As a result, the object model will be appealing, pleasing to the eye, and preset, making it appear ideal and even more ideal.
Texturing is the act of constructing and providing the prior object model with color and materials (textures). It will offer the genuine object. A 3D/2D object's imprint brings texture and material to life. A good texture gives a picture or image more personality. It is created using 3D software programs like Maya, 3ds Max, and others. Additionally, digital image programs like Photoshop, PotoPaint, or Gimp are used.

The process of creating picture animation on a model is called animation. Usually, it involves movement, a motion that enables the item or model to move realistically. Additionally, a camera shift might cause the image to animate while moving. Typically, these make use of flythrough or walkthrough animations.

The ultimate step in all prior computer-based animation modeling is rendering. Modeling, animation, texturing, and lighting with precise specifications lead to the finished product. An output that has been translated into Indonesian will be the final layout. Typically, it is a picture or a video.
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Figure 7. The Rendering Process

Figure 8. Shows How Animated Text is Provided.

Discussion
Based on the data, it could be concluded that the usage of digital storytelling is seen favorably. They were able to interactively tell stories. According to the data collected and the findings of the interviews, multimedia storytelling was a tool that aids in education. When completing the digital storytelling challenge, the students reported that they could repeat the voice-recording portion phrase by sentence. Stories employing multimedia, according to Kuforiji & Williams (2011), showed that using multimedia in the classroom is enjoyable. Effective English learning was made possible.

Students learn more effectively when reading stories in English. According to Afrilyasanti & Basthomi (2011), participatory storytelling in the classroom is simple to implement. The majority of students are aware of how to use Corel VideoStudio when making digital storytelling. Digital storytelling, according to Lee (2014), is an engaging method of language instruction that is simple to apply to speaking. It might inspire students to pursue English learning outside of the classroom.

According to Ariffin (2010), sharing experiences is a key component of the usefulness of multimedia storytelling. A history of visuals is therefore a technology that can aid in effective teaching. Students will be encouraged by their teacher to learn more about multimedia technologies. Additionally, they will interact with their classmates more when sharing. They will become more active thanks to this active mindset. They can learn more independently thanks to the application.

Additionally, it took additional time for the teacher to integrate the storytelling integration file to the narrative text framework since she discovered a number of potential barriers.
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Students utilize sketches and photos to tell stories visually here. It aids students who may struggle to comprehend a concept before reading the course material and helps students who need further assistance. Piotrowski and Reason (2000) Using cutting-edge photo data and graphing technologies, the images and illustrations in the visual storytelling phase can motivate students to learn more. It facilitates creation. Additionally, a laptop or computer speeds up video rendering. With a powerful CPU, it is worthwhile to use. The kind of media that children need for narrative learning—storytelling media with bits—produces exceptional results. The narrative text's structural components are all finished. These are common language constructions, English tenses, and generic structures. One responder mentioned that this typically involves a monologue of performance even though the respondent who delivered the medium was communicative. Digital storytelling media that includes lengthy multimedia and narrative video content are ideal for use as classroom teaching aids. The respondents also concurred that narrative texts are utilized in the classroom to teach storytelling. In this study, learning materials are created through storytelling, especially for junior high school students. The researcher incorporates fundamental theories using a framework. It is the learning design model and the educational development cycle. The lowest cycle of design development is the instructional design model. In order to produce an engaging and appropriate digital storytelling, it was necessary to incorporate narrative into learning as well as the roughly seven elements of digital storytelling (Göbel, Rodrigues, et al., 2009; Sweeney-Burt, 2014). The study's findings supported the notion that students were enthusiastic about the use of incisive stories in the classroom. It works for narrative teaching since it is much more fascinating and aids in their comprehension of the subject. Similar to what Kim (2014) and Menezes (2012) stated, these authors contend that digital storytelling engages students in the learning process and increases their baseline knowledge. In this study, researchers analyzed digital storytelling media and teacher guides and created and added lessons and exercises to teacher guide booklets. According to the evaluation's findings, the exercise media promoted narrative learning. Several correspondents, however, made improvements to the recordings and proposed include tasks in the teacher's manual. They also suggested that subtitles be added to digital storytelling so that students might use them when responding to queries about narrative texts in class.

In terms of digital media presentation, YouTube is a media for researcher. The Teacher's Guide also makes use of links that may be downloaded easily from YouTube in both printed and digital form. Additionally, the researcher integrated subtitles that recognize the solutions to the exercises.

**Conclusion**

Digital storytelling is a powerful tool for fostering an environment conducive to online learning that is founded on constructivist ideas. With an integrated learning strategy using digital media, it transforms students into learners. Moreover, a framework that can be applied on many levels.

This study makes use of a digital storytelling product in an e-learning environment. Twelve storytelling aspects and five levels make up this product; as you advance, each aspect gets better. Digital storytelling will be used to further this product's development. With the help of this technology, schooling can use the learning system much better. The future of this research will center on how digital storytelling can engage students and significantly improve subsequent learning. It demonstrates that the E-Learning Digital
Storytelling framework will continue to be developed and validated in subsequent research projects.

**Acknowledgement**

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