CHAPTER I
INTRODUCTION

This chapter describes the nature of the new research and the theoretical foundation of the research. It begins with a background of the research, identification, and main of the problem, limitation of the research, question of the research, aims of the research, significance of the research, previous research, and theoretical foundation.

1.1.   Background of The Research

Knowledge is situated within a dynamic realm that evolves over time (Ngafifi & Ngafifi, 2014) global progress leads to constant changes in every aspect of life (Maksum & Fitria, 2021). This phenomenon also extends to the domains of technology and science (Setiawan, 2018). The existence of advances that exist in technology and science make developments that exist in the educational aspect (Jamun, 2018). Education, which is the main actor in educating students (Hermanto, 2020), has an important task in advancing knowledge (Nurkholis, 2013). To achieve this, education must continually adapt to the evolving and shifting needs of the times (Kadi & Awwaliyah, 2017). Therefore, it is hoped that education can choose modern innovations and creations that can keep up with the times (Sibagariang et al., 2021). However, fixing the current education system in Indonesia is a huge and challenging task (Alwasilah, 2013) because Indonesia is one of the countries with a low level of education. Especially, in the field of literacy in reading.

Low literacy in Indonesia makes its citizens blind to the growing knowledge. This is proven according to English First (EF) Education's report on the English Profiency Index (EPI), Indonesian shows a decline of 64 points in the last 10 years.

Table 1. 1 Table Indonesian EPI Result

Years	Rank	Participants (Country)
2011	34	44
2012	27	54
2013	25	60
2014	28	63
2015	32	70
2016	32	72
2017	39	80
2018	51	100
2019	61	100
2020	74	100
2021	80	112
2023	79	113

In addition, Indonesian PISA ((International Program for Student Testing) 2018 data which ranked Indonesia 71st out of 77 countries in terms of literacy. Whereas, literacy is one of the main foundations before gaining access to other types of knowledge. According to (Alwasilah, 2013) literacy is the essential requirement for comprehending any field of study.

Figure 1. 1 Graphic of PISA Score in Indonesia

The above problems occur because learning in Indonesia is still traditional teaching based on teacher-centered, memorization, and grammar. In learning English, students seem to only be required to memorize grammar and vocabulary material even though English is not just a matter of grammar, and learning in Indonesia still emphasizes teacher-centered. According to (Sudimantara, 2021), that traditional learning methods are teacher-centered methods with grammar and linguistic formulas as the only reference. This is not relevant to what the OECD plans for learning in 2030, According to (OECD), 2018) the OECD Education 2030 project has identified three further categories of competencies, the "Transformative Competencies", that together address the growing need for young people to be innovative, responsible and aware: Creating new value, Reconciling tensions and dilemmas, and Taking responsibility. Which means that 21st century learning must change from traditional teaching to transformative learning in order to be in line with the OECD's 2030 plan.

Transformations in education should not only be in one aspect but include all aspects of education (Basmar et al., 2021). Focusing just on a single area of development may result in an imbalance within the educational landscape (Indayati et al., 2017). As such, it is advisable for those involved in educational development to undertake periodic enhancements across all educational domains, including the curriculum. To respond this transformation, Nadiem Makariem as the minister of education and culture in Indonesia began launching the Merdeka Curriculum and Merdeka Mengajar platform on the KEMENDIKBUD RI YouTube channel on February 11, 2022. Through the Merdeka curriculum and Merdeka Mengajar platform, Nadiem Makarim invites the new generation (teachers) to make significant changes in overcoming the learning crisis experienced by the Indonesian nation over the past 20 years. This transformation is also relevant in facing the challenges of education in the 21st century because Merdeka Curriculum places a focus on education that is tailored to the needs of students and also has the main objective of giving schools and teachers the freedom to determine learning materials, teaching methods, and assessments that are in accordance with the characteristics of students and the school environment.

Learning 21st century makes student able to learn automatically and independently. The teachers are here as a facilitator in terms of guiding and directing students in learning process. As stated by (A. Lian & Pineda, 2014a) in their discussion of rhizomatic learning, self-adjusting personal learning networks established by the learners themselves are utilized to satisfy perceived and actual demands. That is, students are instructed to process the information and concepts they learn in a more independent way and focus on their personal experiences. Students do not simply follow a school-defined sequence of lessons, such as a school- or government-mandated. Instead, students are required to be able to encounter various representations of knowledge and relevant challenges, and from that, naturally develop their personal knowledge without having to follow a sequence that has been determined by an external authority. Based on problem above, it can be concluded there is a need to create a platform for literacy source in digital form. It is accessible, free of charge, and can promote students' autonomous learning, and provide students' literacy level.

The development of digital photobook tools in Indonesia is key to addressing ongoing literacy challenges especially in reading, such as low literacy rates and declining English proficiency. Digital literacy is one of the vital components of the 21st Century Learning Framework. Today, we live in a technology- and media-driven world characterized by abundant access to information, rapid developments in technology, and the ability of individuals to interact and contribute on an unprecedented scale. One form of digital literacy media is the digital photobook. A digital photobook is a collection of photos presented in digital book form, often used to capture and preserve important moments in life (Colberg, 2016). The use of digital photobook as a learning media is to enrich students' learning experiences by making them more interesting which aims to help attract students' interest in literacy, especially in reading.

The use of authentic foods from Cirebon as material in learning English presents an interesting approach (Sproesser et al., 2019). These traditional elements have a deep cultural meaning which aims to understand more deeply the cultural insight regarding customs, traditions, and certain cultural values, so that can foster

deeper cultural relationships in the context of language acquisition. Additionally, the appeal of these foods arouses high levels of interest among students, which can foster motivation and enthusiasm for learning when exploring familiar or interesting foods. This approach also serves as a powerful tool for enriching vocabulary. In addition to vocabulary, discussing these traditional elements creates a real, practical context for honing language skills. In addition, studying traditional foods not only increases cultural understanding but also increases appreciation for the diversity of cross-cultural understanding. Incorporating traditional elements into English learning materials helps language acquisition while simultaneously broadening cultural understanding.

In schools in Cirebon, especially at SMPN 7 Cirebon, there is a problem related to the low interest of students in learning English, which has an impact on their low ability in English. This is reflected in the data showing the average score of students is 73. To increase students' interest in learning English, researchers have compiled texts about traditional food, especially in Cirebon, that are relevant to students' local culture using digital photobook media. Through these texts, it is hoped that students can gain new insights into Cirebon traditional food as well as become a medium to preserve this cultural heritage in the digital era. By understanding and appreciating local wisdom from an early age, students are expected to be able to play an active role in preserving their culture and realize the importance of preserving the local wisdom they have.

Therefore, the researcher created a web-based digital product that is aligned with 21st-century learning, using traditional foods from Cirebon as the material. According to (Sproesser et al., 2019) traditional food reflects the characteristics and values of a region. The product presented in the form of a digital photobook aims to help attract students' interest in literacy, especially reading. According to (Parr & Badger, 2004) photobooks convey messages primarily through photographs. This digital product also benefits students in encouraging multisensory integration that engages the brain to combine information from multiple senses. It also supports differentiated learning, meets the needs of diverse students and utilizes the Common European Framework of Reference (CEFR) for assessment. The platform's content

focuses on traditional Cirebon foods, which is presented in multimodal text to aid comprehension. In addition, this product uses Reading for Emotion, introduced by (A. B. Lian, 2017) as a tool to analyze learning materials in accordance with brain function. Reading for Emotion is a self-reflective learning tool that activates the brain through explorative-reflective learning while reading, analyzing, and writing.

Based on the case study above, this researcher has the title "Developing a CEFR-Based Digital Photobook For Middle School In Cirebon: Exploring The Traditional Foods Of Cirebon." This research discusses the low Literacy level of middle school students developed by Digital Literacy Resources namely, Digital Photobook.

1.2. Identification of The Issues

Following the background of this research, Indonesia has a learning loss over the years. This is proven by the EPI, PISA, TIMSS, and PIRLS surveys, which explain that Indonesia has significant decline in literacy. This is because many lessons in Indonesia still use traditional teaching where the teacher is still the main focus as the transfer of knowledge for students. In addition, the process of teaching English is very complicated because there are many components involved teachers, students, resources, and media. All language components should be presented interestingly. However, the use of textbooks which only contain monomodal learning materials as the main foundation of education in Indonesia often causes students to lose interest, feel bored easily, and lack motivation to learn. This is due to the lack of attractiveness in the way teachers present learning materials for students.

In the 21st-century education era, a student-centered learning approach is essential. Here, the teacher only acts as a facilitator who provides guidance and support for students' knowledge development. In addition, teachers can also utilize technology in teaching, one of which is the use of digital media with the multimodal and variations of mixed genre materials that used to deliver learning materials. This can make students feel more motivated and encouraged to learn, as well as make learning more interesting and less boring.

The utilization of technology in learning adds significant value when used to explain, support and provide relevant references. Technology allows students to feel more relaxed and fully engaged in learning, changing their perception from a difficult task to a more enjoyable experience. This vision of digital learning development is the main focus of the research as it creates a technology-enhanced learning-based learning resource that fits the 21st-century framework. This approach can motivate students, as they tend to prefer learning materials in the form of stories presented with a modern twist.

1.3.   Limitation and Focus of the Research

To avoid the expansion of perspectives in problem analysis, the Researcher limits the scope of the problem to allow for a focused and in-depth examination. The initial focus of the researcher is on the development of an exploration of English digital resources to help attract students' interest in literacy, especially in reading for middle school students according to their needs and desires. This research primarily targets a single element of the learning process, which is the development of digital learning resources based on technology-enhanced learning in alignment with the 21st-century framework for students in one of the middle schools located in Cirebon, West Java. This study only focuses on one element of the learning process, namely creating materials about traditional Cirebon food for grade VIII middle school students in Cirebon. The object of the study was grade VIII students of SMPN 7 Cirebon, and the researcher only chose 1 English teacher to be interviewed. Because this school lacks digital English material sources that are relevant to the students' cultural heritage. So, the researcher created materials about cultural heritage to preserve traditional Cirebon food by covering all levels of CEFR that are appropriate based on the needs of middle school students.

The researcher collects data on the literacy skills of the students to understand their literacy abilities, along with insights from teachers and experts. To eliminate ambiguity and ensure proper research methodology, the researcher confines the types of texts that will serve as data sources. In this study, the researcher employs descriptive text with a focus on reading for emotion as an analytical tool. The research remains concentrated on one essential element in the

learning process, which is the utilization of digital resources with a pedagogical approach to help attract students' interest in literacy especially in reading. The primary objective of this research is to help attract students' interest in literacy, especially in reading of students in English language learning, in line with the 21st-century learning approach, including the utilization of digital technology. It is expected that this approach will facilitate the development of middle school students' literacy through technology-based materials that are easily accessible.

1.4. Research Question

Based on the background and focus of the study in this research, the researcher formulates the research question as follows:

1. What do teacher need for developing CEFR-based digital photobook for middle school in Cirebon?

2. What are the characteristics of CEFR-based digital photobook for middle school in Cirebon?

3. How to develop a CEFR-based digital photobook for middle school in Cirebon?

1.5. Aims of the Research

As formulated in the research question, the aims of the research are:

1. To analyze the teacher need for developing CEFR-based digital photobook for middle school in Cirebon

2. To find out the characteristics of CEFR-based digital photobook for middle school in Cirebon

3. To develop a CEFR-based digital photobook for middle school in Cirebon

1.6. Significances of the Research

In conducting research, there should be information that is beneficial to others. Therefore, this study has the following significance for theoretically and practically:

1. Theoretically, this study provides new insights into the world of education, especially in terms of digital learning resources that use materials relevant to

local wisdom and regional cultural heritage. The materials aim to preserve the cultural heritage in the location that can be adapted to English texts in the context of teaching and learning using digital media. In addition, this study is expected to be a reference for further research on the topic, by utilizing existing digital technology and platforms.

2. Practically, this research can be used as open material in English learning in junior high schools to introduce local cultural heritage, especially traditional Cirebon food. For teachers, this research can be used as a reference in adjusting materials to the student's environment. For students, this research is useful for enriching their literacy and knowledge of cultural heritage. In addition, for evaluators, this research can be a guideline in presenting open English materials that are relevant to students' needs.

1.7. Theoretical Foundation

This research uses several theories. This section describes the literature review related to the research topic. The following are the theories used in this research:

1.7.1 New Paradigm of Learning

Education has always been an essential aspect of societal progress and individual development (Seldon et al., 2020). However, in today's era of digital challenges and rapid technological changes, education must navigate complex shifts and find new ways to address future challenges in line with 21st century learning. According to (Sudimantara, 2023) new paradigm to navigate the tension of the digital age, a new paradigm is required to reinforce transformative pedagogy. The new paradigm of learning is a shift in educational approaches that prioritize adaptability, critical thinking, and creativity over rote memorization. According to (Kemdikbudristek, 2022) cited in (Sudimantara, 2023), the new paradigm of learning encompasses mapping competency standards, independent learning, and minimal competency assessment, which ensures greater flexibility for teachers to design learning and assessment plans that align with the characteristics and needs of learners. Therefore, a new paradigm in education becomes increasingly crucial

in creating an innovative and adaptable education system. This new paradigm emphasizes personalized and self-directed learning, digital literacy, technology integration, collaborative learning, critical thinking, creativity, and continuous learning and metacognition. Educational technologists play a crucial role in leading the change towards the new paradigm of education by helping educators integrate technology and neuroscience research into their teaching practices and supporting students in becoming lifelong learners. In the new paradigm, students are not likely to acquiring knowledge not only focused on grammar and vocabulary, but also they are tent to be actively contribute emotion and then turned into a text to engage the interlocutors (Helyanti et al., n.d.).

The new education paradigm serves as a bridge between the education world and the real world, encouraging students to apply their knowledge and skills in real-life situations, making learning more meaningful and relevant. The new education paradigm continues to progress, creating a space for students to dare to dream and reach for a brighter future, ready to navigate the future with readiness and high spirits (Seldon et al., 2020). To prepare for the future of education, educators need to be equipped with requisite technological and pedagogical competencies and be open to new ideas and approaches. This is as revealed by (Sadewo & Purnasari, 2019) that teachers need to think about choosing the right learning model so as to create effective, efficient, and interesting learning by utilizing technology as new paradigm of learning. One of them is that teachers need to prepare multimodal learning materials that consist of various types such as audio, video, text, and motion video. In addition to learning, this can also be used to stimulate students' sensory or better known as multisensory learning. In this multimodal material, students can also learn to use interrelated resources according to their needs. The new paradigm of learning has significant implications for the future of education. A new trend in language learning and literacy pedagogy is consistent with the biological nature of the human learning mechanism. At the end of the first quarter of the twenty-first century, English language teacher education in Indonesia should embrace a new learning pedagogy that promotes student agency as a new benchmark for higher education quality, as demanded by the New Standards of

Higher Education (Bumela, 2020). In accordance with the New Standards of Higher Education, learning today is not limited to textbooks. Today, students have access to a variety of learning resources that allow them to learn independently in the 21st century era. In this context, the role of the teacher shifts to a facilitator who guides students in the learning process. The concept of rhizomatic learning, as stated by (A. Lian & Pineda, 2014), describes a personal learning network that is customized by learners to meet learning demands, not just those imposed by the school or government curriculum. It encourages students to learn autonomously. Autonomous learning becomes an important aspect in 21st century education that puts students at the center of learning. They use personalized learning styles tailored to the individual student's needs, interests, and abilities, to measure their educational success (Lian, A., 2014).

To sum up, there is a need for a new educational paradigm that focuses on adaptability, critical thinking and creativity rather than memorization. This paradigm aims for personalized learning, self-directed learning, technology integration, and continuous learning, facilitated by educational technologists. In addition, this paradigm also advocates a shift towards application-based learning, which connects education to real-world contexts. The importance of teachers' technological and pedagogical competencies is emphasized, along with the need for innovative learning materials. This evolving educational paradigm in the 21st century is seen as a bridge between education and real-life applications, which fosters meaningful learning experiences for students and can promote student agency.

1.7.2 21st Century Learning

The developments in the era of the 21st century have led to very rapid technological developments. Especially in the field of education (Indriyani, 2023). The concept of 21st-century learning is described and defined in various ways by organizations in the world. 21st-century learning typically refers to the competencies needed to thrive in the current complex and interconnected global landscape. 21st Century Learning creates a framework for learning that requires students to have skills, knowledge, and abilities in the fields of technology, media,

information, learning and innovation, and life and career skills. This framework also describes the skills, knowledge, and abilities that students must master to be successful in life and the workplace. In the 21st century also there is a lot of evidence on how humans learn language, one of which is about the role of the right brain and the left brain (Ellen & Sudimantara, 2023). Examples of these skills include digital literacy, cultural competence, creativity, emotional awareness, entrepreneurship, critical thinking, and problem-solving (Resource & Guide, 2008).

(Gardner, 2010) argues that life in the new millennium reflects a period of rapid and immeasurable change, driven by constant advancements in science, technology, and globalization. Consequently, the way we communicate, access and share information, and process knowledge has undergone inseparable transformations. Various narratives framing the 21st-century learning movement convey a sense of discontinuity between the past and the rapidly evolving future. Therefore, the educational demands of this century call for new and different teaching practices that not only align with workforce preparation but also embrace highly collaborative, project-based learning.

Following this statement, it can be asserted that current students, often referred to as digital natives, require interactive pedagogical experiences that prepare them to solve complexities, adapt to changing circumstances, and leverage technology to create opportunities, connect with like-minded individuals, and organize in new ways (Wagner & Compton, 2012)

1.7.3 Principles of Multimodal and Multisensory Approach

(Richards & Rodgers, 2014) provide a definition of an approach as a theory that explains the nature of language and language acquisition. They also state that the source of language teaching techniques and principles was a single methodology. This approach encompasses both linguistic theory and language acquisition. In simpler terms, an approach in language teaching is a set of principles and theories that guide the teaching and learning process, incorporating both the understanding of language and how learners acquire it.

The human brain does not perceive reality directly. Instead, people perceive hearing or seeing things only after they have already processed information against the multiplicity of multisensory connections (Immordino-Yang & Damasio, 2011). The multisensory approach to learning involves using two or more senses to learn a new subject (Rains et al., 2008). Specifically, multisensory learning is a process that consists of learning a new subject through the use of two or more senses, which may include visual, auditory, tactile or synesthetic, olfactory, and gustatory sensation (Kumar, 2018). Baines (2008) suggests that students who learn through several senses are typically more interested in the material and retain it for longer. The multisensory approach suggests that language is better grasped when visual, auditory, motor, and tactile learning styles are integrated (Dewi, 2015; QIA, 2008). The VAKT method is a popular example of this approach, which incorporates visual, auditory, kinesthetic, and tactile learning styles. VAKT has its own meaning and explanation, namely: (1) Visual: can be seen with the sense of sight (eyes). (2) Auditory: can be heard. (3) Kinesthetic: a very complex feeling generated by stimuli in the muscles, tendons, and wrists. And (4) Tactile: related to touch or touch (Basam & Sulfasyah, 2018). This approach is believed to be more engaging and effective for students in learning. Teaching with a multisensory approach helps students link new information to prior knowledge and understand relationships between concepts ((Esplendori et al., 2022).

In addition to learning that must use a multisensory approach, learning in the 21st century also requires teachers to use multimodal materials as teaching materials. Multimodal materials are a combination of various kinds of audio, visual, and other symbolic representations (Eisenmann & Summer, 2020). A multimodal text is often a digital text but can also be a book, such as a picture book, informational text, or a novel. Unlike the reading of monomodal texts that have only one focus, multimodal materials require the processing of more than one focus and the recognition of interconnections between these modes. Therefore, teachers should be able to create multimodal learning materials by moving away from single-focus frameworks to multi-focus materials that combine visuals, illustrations and verbal text (Eisenmann & Meyer, 2018). As the interaction between text and

illustrations is an important part of the book as a whole, picture books have 'high potential for developing literary and visual literacy' (Eisenmann & Meyer, 2018). So, multimodal material allows teachers to effectively attend to a variety of learning styles simultaneously (Thompson & McIlnay, 2019), that can make students have different sense in learning and facilitating comprehensive of language acquisition.

1.7.4 Transformative Pedagogy

According to (Sapoetra, 2017) pedagogy is the study of how a teacher can influence the learning of others in an effective and efficient way. (Alexander, 2012) defines pedagogy as the act of teaching and educational discourse about theories, ideals, evidence, and reasoning. In addition, according to (Murphy et al., 2012) pedagogy is a term that describes the relationships and interactions between teachers, students, learning environments, and learning tasks. Therefore, pedagogy can be defined as a study of teaching methods, including the goals of education and how to achieve those goals. Meanwhile, Transformative learning for people and the planet is necessity for our survival and that of future generations. The time to learn and act for our planet is now (Unesco, 2021). Transformative is one of the actions to effect change in learning. According to Lewin (1948) cited in (Helyanti et al., n.d.) transformative refers to a transformative cycle consisting of "stages of action" intended to effect change. So, Transformative pedagogy is a change in the way students are given knowledge.

According to the OECD Learning Compass 2030, transformative pedagogy is a teaching and learning approach that aims to empower students to contribute to and thrive in our world, and shape a better future. The OECD has identified three "transformative competencies" that students need in order to achieve this goal: creating new value, reconciling tensions and dilemmas, and taking responsibility. Transformative pedagogy also an approach to teaching that aims to empower students to become agents of change in their own lives and communities. It is a student-centered approach that emphasizes critical thinking, reflection, and action (Bumela,2021).

Farren (2019) also identifies the variables of 'transformative pedagogy' that promote independent language teaching and learning. These variables include 'new' literacies, such as cross-cultural literacy, as well as traits that enable language teachers to develop a fuller identity as practitioners, academics and leaders. Therefore, transformative pedagogy here is a change in providing knowledge to students, especially at the point of literacy. In the digital age, digital literacy resources that suit 21st-century learning can help students become more independent in learning.

1.7.5 New Approach of Learning

In this section, we will describe the new teaching and learning tools that are currently in use. Subsequently, this educational tool actively engages with the processes of the human brain. Presented below are the recently introduced educational materials:

1.7.5.1 Stories in our Brain

Stories have long been a means of learning about human life for centuries ago; the story allows humans to learn to survive (Fletcher, 2021). Stories activate the brain's auditory cortex and inflame the left temporal cortex, the area that receives speech (Jayanti & Sudimantara, 2023). Stories evoke emotions. Emotions are signals to the brain that everything we experience matters. Stories make information memorable and allow information to be shared in a way that creates an emotional connection. Stories also engage people because the center of human cognition and communication is manifested in the form of narrative, where the storyline bears a resemblance to the mindset of the human brain. Stories are one of the most effective tools for influencing, teaching and inspiring people. The appeal of stories lies in their ability to establish a connection between human ideas and others through the process of storytelling. Stories not only give pleasure to listeners and readers, but also reveal elements of culture, history, and values that unite people, allowing them to quickly foster closeness, trust, and understand the

complex ideas in the story. Good stories have a positive impact on the functioning of the human brain.

When humans are engaged in listening to or reading a good and interesting story, two significant changes occur in the human brain. The first is neurological, while the second involves chemical changes. When humans are presented with clear facts, two areas of the brain will experience increased activity to process and understand language. However, when humans listen to or read a story, neural activity in the brain jumps up to five times, utilizing both the motor cortex and the emotional cortex, as well as the visual image processing center. This results in humans' instant ability to visualize sensations and respond to emotional processes. Through the experience of reading and hearing stories, different parts of the human brain collaborate, creating a deeper focus on the story and increasing the posibility of retaining it in memory for a longer time (Armstrong, 2020).

In language learning, learners can also actively use stories to increase retention. In addition, stories also can elicit emotion. Emotion has a connection with learning Emotion and cognition cannot be separated since emotion is a form of cognition. Three neurotransmitters will be released to build emotion when reading the stories: a) Dopamine- the neurotransmitter of drive, reward, and deeper learning. b) Cortisol, the stress hormone that causes greater focus, and c) Oxytocin, the neurotransmitter of bonding (Curtis, 2016). Oxytocin is the bonding hormone that causes concern to the people involved in the story. In language learning context, the human brain uses the same networks to do the four things: to process incoming sensory information, to store memories, to predict what will happen, and to make meaning from language (Curtis, 2016). That is all because the human brain is cause and effect simulation machines that use the sensory areas of our brain to process the knowledge.

On the chemical aspect, when humans engage in listening to or reading stories, the brain will release oxytocin, a bonding hormone that fosters a deep sense of caring for the individuals involved. This explains why fictional characters are often perceived as real by readers, why sharing stories is an effective way to connect with strangers, and why the art of storytelling is a key weapon in the learning

process. Through stories, you don't just hear about someone's experience, you experience it together. The more experiences a reader shares, the more oxytocin is released, and the greater the chance that the reader will internalize the story and reflect on it in the future (Armstrong, 2020).

According to (Bauer, 2021), it was revealed that it is only through the art of storytelling that humans are able to infuse ideas, thoughts and emotions into the brains of listeners. When humans engage in hearing or reading stories, there is increased activity in the insula, a region of the brain associated with emotions, as well as the frontal cortex. (Yeshurun et al., 2017) complements this understanding by pointing out that both reading and listening to stories will trigger the activation of different areas of the brain, creating a similar model of contextual situations. During story creation and processing, the motor and sensory cortices, along with the frontal cortex, are activated (Widrich, 2012). (Langellier & Peterson, 2017) adds an important dimension by stating that stories are the only method capable of activating all parts of the brain, allowing listeners to transform the story into their personal ideas and experiences.

Therefore, what must be done in learning today is to make learning that can make people understand what is being taught. Therefore, learning through stories is very important, not only because of its benefits for human mental health but also because it can trigger humans to be able to understand something better, and through stories it can also help humans in solving problems because in a story a text is not just words governed by grammar, nor is it simply "social" (A. Lian et al., 2017). Texts are time capsules that reflect the social history that interlocutors bring to the process of text construction and which they negotiate by drawing on past "strands" of past "conversations" to create their responses (Bakhtin, 2014). This means that the act of reading or writing is an act of participation in that conversation, which is produced in response to previous texts (interactions) and in anticipation of possible responses. However, a learning tool is needed so that students can engage in learning to solve problems through stories.

1.7.5.2 Reading for Emotion (RfE)

One tool for learning through stories is reading for emotion. Reading for Emotions is a new learning tool introduced by (A. B. Lian, 2017). This tool incorporates emotions in its approach. (A. B. Lian, 2017) argues that students need to understand more than just vocabulary or grammar. They need to understand the emotional relevance of the structure. This focus on the emotional aspect allows students to engage more deeply with the text from the point of view of their own personal experience. Text is a self-contained object consisting of words organized by grammar (A. Lian & Yunus, 2018). The use of Reading for Emotion is also an innovative step in teaching and learning, marking a shift from traditional learning that focuses on the role of the teacher and memorizing (grammar and vocabulary) to non-traditional learning. This learning process clearly takes reference from each individual's unique experience, each of which is distinctly different from the other. Learning through this Reading for Emotion tool, individuals will experience inquiry-based neuroscience learning that can be easily understood. In fact, this learning tool will help individuals achieve satisfactory learning results without memorization.

The principle of learning using this tool is to analyze and recreate text by using emotions. According to (Immordino-Yang & Damasio, 2007), and (Immordino-Yang, 2009) cited in Sudimantara 2021 provide evidence that emotions are the most fundamental processes that humans utilize to make sense of the world. Emotions are the key mechanisms that structure our experiences, "I feel therefore I am"(Damasio, 1995). (A. B. Lian, 2017) concluded that it is not vocabulary or grammar that students need to "comprehend", but the emotional significance of the structures, "the ways in which emotions are turned into a text to evoke a desired effect in the interlocutors". The explanation of the above statement says that the learning principle of Reading for Emotions is no longer oriented towards learning vocabulary or grammar that needs to be understood, but the emotional meaning of the structure, how emotions are converted into the text to evoke the desired effect on the interlocutor. Lian (2021) suggests that attention to emotions allows students

to engage with the text from the perspective of their personal experience. By analyzing the text to compare and contrast what they see in the text and why from an emotional perspective.

Learning using the Reading for Emotion tool has 6 stages, which consist of Focus, Disturbance (problem), Dialogue, Development, Resolution, and Moral.

Figure 1. 2 Rfe (Reading for Emotion)

According to (Sudimantara, 2021), the six structures can be interpreted as follows:

1. Focus in the Reading for Emotion model relates to the main focal point of the text.
2. Disturbance introduces a "complication", an event that creates an emotional shift. It doesn't have to be negative; it can also be a surprise.
3. Dialogue is the part where perspective is given on the Disturbance.
4. Development stage talks about what happens because of the Disturbance.
5. Resolution refers to how the problem is solved.

6. Moral is the takeaway message that addresses the contrast between Focus and Distraction.

1.7.6 Common European Framework of References for Language (CEFR)

The Common European Framework of Reference for Languages (CEFR) is an international standard for describing language proficiency. British Council also defined The Common European Framework of Reference for Languages (CEFR) is an internationally recognized standard for describing language proficiency. It was developed to enable learners, teachers, and evaluators to assess foreign language proficiency using the same criteria. CEFR plays crucial role in motivating learners to set achievable goals and adapt to the demands of the globalized world, where English commonly used English Language Learning (Indriyani, 2020).

The CEFR also emphasizes transparency and coherence in language teaching and promotes autonomous learning in development of English language teaching and learning (Nagai,2011). CEFR provides a six-point scale for language proficiency, ranging from beginning (A1), basic (A2), intermediate (B1), advanced (C1), to proficient (C2). This allows anyone involved in language education and testing, such as teachers and students, to quickly evaluate different qualification levels. The CEFR Framework consists of the following levels:

THE CHARACTERISTICS OF A1 – C2 IN CEFR

A1
1. can comprehend and use familiar everyday expressions and basic phrases to meet the requirement for concrete types.
2. Can introduce yourself and others and inquire about personal information, such as where he resides, people he knows, and what he believes to be his property.
3. Can interact with others without difficulty so long as they speak slowly and clearly.

A2
1. Can comprehend frequently used sentences and expressions in areas of direct relevance (e.g., basic personal and family information, shopping, local geography, work).
2. Can communicate in routine situations requiring a simple and direct exchange of information on common topics.
3. Can explains background information, the surrounding environment, and issues in the immediate area of need using simple language.

B1
1. Understands the main ideas of clear, standard input on topics typically encountered in the workplace, school, and leisure settings.
2. Can handle the majority of situations that are likely to arise while traveling in the language's native region.
3. Can generate simple, connected texts on topics of general or personal interest.
4. Can describe experiences and events, as well as dreams, hopes, and ambitions, and provide brief justifications and explanations for opinions and plans.

B2
1. Can comprehend the main points of complex texts, including technical discussions in their area of expertise, on both concrete and abstract topics.
2. Can interact with native speakers with a high level of fluency and spontaneity makes general interaction between both parties quite possible.
3. Can produce detailed texts on a variety of topics andexplain points of view on timely issues, including the benefits and drawbacks of various options.

C1
1. Can comprehend a variety of longer, more complex texts and recognize their implied meanings.
2. Can possess the ability to express ideas fluently and spontaneously without difficulty.
3. Can employ language effectively and flexibly for social, academic, and professional purposes.
4. Can produce clear, structured, and detailed prose on difficult topics, demonstrating command of organizational patterns, connectors, and cohesion devices.

C2
1. Can understand with ease virtually everything heard or read.
2. Can summarize information from different spoken and written sources, reconstructing, arguments, and accounts in a coherent presentaion.
3. Can express themselves spontaneously, very fluently, and pricisely, differentiating finer shades of meaning even in the most complex situations.

Figure 1. 3 The Characteristics of CEFR

1.7.7 Reading as Part of Literacy

According to UNESCO (in Purwati, 2017) literacy is a manifestation of real skills, specifically the cognitive skills of reading and writing, which regardless of the context in which the skills are obtained from whom and how they are obtained, these skills also include the ability to understand, analyze and evaluate information. According to Suyono (in Gogahu & Prasetyo, 2020) literacy can be used as the basis for developing effective learning in schools that can make students skilled in finding and processing information needed in science-based life in the 21st century (Gogahu & Prasetyo, 2020). So, it can be said that literacy is a learning process that is carried out comprehensively to identify, understand information using printed or digital materials with various contexts. In addition, literacy is an activity carried out to support the realization of effective and efficient learning. Literacy can also be interpreted as a tool in the learning process to enrich students' insights, vocabulary, practice writing, and foster interest in reading.

One important aspect of literacy is reading, which is considered the window to knowledge. Through reading a lot, individuals can enrich their insight and knowledge. Reading habits must be developed early on to improve the quality of education (Aswat & Nurmaya G, 2019). According to Subakti (2019, in Subakti et al., 2021), knowledge can be improved through a lot of reading and continuous practice. In addition, reading is not only an activity of understanding text, but also a way to share understanding and meaning with others. By reading, individuals can communicate their ideas and perspectives, thus serving as a bridge to share information and enrich social interactions, as expressed by Tilaar (in Widiyono & Nurhayati, n.d.), reading is a process of sharing meaning with the world.

1.7.8 Descriptive Text

Descriptive text is one of the most commonly used genres in various fields such as literature, education, and communication. According to Hyland (2020) descriptive text is a type of writing that provides detailed observations about a person, place, thing, or event. The main purpose of descriptive writing is to create

a clearly defined picture in the reader's mind, using sensory details to describe how something looks, sounds, feels, smells, or tastes.

In an educational context, descriptive texts are usually used to help students develop their writing, observation and creative thinking skills in learning. Students are taught how to use adjectives, adverbs, and other descriptive devices to make their writing more interesting and precise. In addition, descriptive text is also often studied for its role in developing narrative skills, as it helps students understand the importance of creating context and atmosphere in storytelling (Graham & Harris, 2020).

From the explanation above, descriptive text is one of the texts that provides a detailed explanation of objects, people, and places. Descriptive text can also help students' writing and creative thinking skills in learning, while also contributing to a deeper understanding of language and communication.

1.7.9 Learning Media

In this era, media has been widely used as a learning tool. The term "learning media" refers to all technologies that teachers can use to convey instructional materials to students during the teaching-learning process to achieve certain learning objectives. According to Bakri (2011: 3) in (Meliala et al., 2021). Media is a form of medium derived from the Latin mediums, which includes the word "middle". Media in Indonesia is "perantara atau pengantar". The meaning of media is defined as something that involves the exchange of information (message) between senders and receivers. Therefore, media can be interpreted as a means used to deliver or receive information between the sender and receiver of the message.

Learning media also functions as a tool to facilitate the implementation of learning system components such as books, videos, and other tools that support the learning process. According to (Puspitarini & Hanif, 2019) the function of learning media is a tool in delivering the material in the learning process. So that the learning process can last long and effectively. Learning media is an intermediary tool to understand the meaning of the material delivered by the teacher, either through print media or electronic media.

1.7.9.1 Digital Learning Media

In today's era of rapid technological development, the role of technology is very important in human life, including in the field of education. One of the main benefits of technological development today is the use of technology in education. Learning media is one example of a significant use of technology in the classroom, helping to increase student interest in learning and supporting the learning process effectively. According to Sadiman (2008: 7) in (Sari et al., 2024), learning media is everything that is used to transfer messages from sender to receiver. Therefore, learning media are various tools or materials to deliver learning materials to students, such as books, teaching aids, and also in the form of interactive digital media such as audiovisual, video, animation, images, social media, online/e-learning, digital photobooks, and others.

Of the various types of learning media, some digital learning media have an important role as interactive and interesting learning tools in the classroom. Holzberger (2013) in (Afifa & Astuti, 2024) states that digital learning is learning that uses digital media such as text or images delivered via the Internet. This digital learning media aims to increase teaching effectiveness and improve learners' knowledge and skills. Digital learning media provides many benefits such as, as a learning tool that facilitates the delivery of material and as a new method to improve the classroom atmosphere to be more fun. In addition, according to Kaiful Umam (2003, p. 101) in (Sitepu, 2022), digital learning media can present learning materials in contextual, audio, and visual forms that are interesting and interactive. Therefore, it can be concluded that digital learning media uses various materials such as audio, video, and digital photobooks as a means or learning media.

1.7.10 Photobook

A photobook can be defined as a living object that has become a communication and aesthetic phenomenon in contemporary photographic production. A photobook is a collection of photographs presented in book form, which is often used to capture and preserve important moments in life, such as

weddings, births, and vacations (Colberg, 2016). Photobooks are also considered a form of visual or verbal-visual narrative, combining visual, textual, and graphic elements to convey a story or message. It plays a role in triggering and preserving memories and emotions associated with the moments depicted, making it an important component of contemporary photography practice.

Its connection to memory and the brain lies in its ability to trigger and retain memories. Viewing photographs in a photobook can trigger memories of the moments associated with the photograph, thus helping in retaining memories of important events in one's life (Ramadhanty & Albertus, 2021). In addition, viewing the photos can also trigger emotional reactions that can strengthen the memory of those moments (Colberg, 2016). Thus, photobooks can play a role in retaining and triggering memories and emotions associated with important moments in one's life.

According to (Osterman, 2013) the use of photobooks in learning can have several benefits, among others:

1. Strengthening memories: Photobooks can help strengthen students' memories by triggering memories and emotions associated with the moments captured in the book. Looking at the photos in a photobook can help in retaining long-term memory.

2. Increase Motivation: The use of visual media, including photo books, can increase students' motivation in learning. Visualization of important moments in the form of photobooks can arouse students' interest and enthusiasm for the learning material.

3. Increases Engagement: Photobooks can be an effective tool to increase student engagement in the learning process. Through attractive visualizations, photo books can help students to be actively involved in understanding and responding to learning materials.

Therefore, the use of photo books in learning can provide benefits in strengthening memory, increasing motivation, and increasing student engagement in the learning process.

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1.7.10.1 Digital Photobook

An important priority of the European Commission's Europe 2020 strategy (2010) is the development of new digital literacy skills to learn, create, participate and use digital media intelligently to meet the challenges of global competitiveness. Education systems are faced with an urgent need to provide new educational programs that match the needs of developing skills and abilities for the effective use and understanding of digital technologies as a basis for lifelong learning.

One of the digital media that can be used in learning is digital photobook. A digital photobook refers to a collection of digital photographs compiled and arranged in a digital format, often designed to resemble a physical photo album or book (Badger, 2014). These photobooks are created using specialized software or online platforms where users can upload, arrange, edit, and customize their images, adding text, backgrounds, layouts, and various design elements to create a personalized and visually appealing collection of photos. Digital photobooks can be shared electronically, viewed on digital devices like computers, tablets, or smartphones, and in some cases, printed into physical copies for keepsakes or gifts. They offer a convenient and creative way to organize, display, and share memories or photographic collections. This is the picture of digital photobook:

Figure 1. 4 Picture of Digital Photobook

1.7.11 Middle School

Middle school education refers to the stage of education that bridges elementary school and high school, usually spanning grades 7 to 9, or ages 11 to 14. It is considered a critical period in students' academic, social and emotional development (Friedrichs & Perkins, 2021). Middle school students experience rapid cognitive and emotional growth, which presents both opportunities and challenges for educators. At this stage, students transition from the more structured elementary school environment to the more independent and complex middle school environment.

Research has shown that the middle school years are a crucial time to foster academic motivation, social skills and self-regulation (Ryan & Deci, 2021). According to Darling-Hammond (2022), the middle school years are characterized by significant developmental changes, and education must adapt to meet the unique needs of students. This includes recognizing the importance of honing students' social-emotional skills, providing appropriate academic challenges, and offering opportunities for personal exploration.

1.7.12 Traditional Foods

Indonesia is famous for its cultural and culinary diversity, both traditional and modern. Traditional foods have been enjoyed since the time of our ancestors to the people of today (Almli et al., 2010). Each region in Indonesia has a distinctive culinary heritage, which plays an important role in the nation's cultural heritage and is an integral part of a country's culture. Therefore, preserving traditional foods is crucial to maintaining cultural identity, maintaining traditions, and enhancing the younger generation's understanding of their history and culture.

One important aspect of traditional food is its role in maintaining and expressing cultural identity. As noted by Smith (2021), food plays an important role in cultural preservation and the transmission of traditions from one generation to the next. Traditional foods are often seen as a reflection of a community's values, social norms and historical experiences. For example, in many cultures across different regions, food is linked to the land and its ecosystem with certain dishes serving as symbols of knowledge and cultural sustainability (Garcia & Pinto, 2022). In addition, traditional foods also tend to be associated with celebrations and daily life. Traditional foods serve not only as food but also as a medium for social interaction and cultural transmission (Bui, 2022).

So, traditional food is an important part of a region's cultural heritage, as it not only reflects cultural identity, but also plays an important role in preserving and passing on the traditions and cultural values of a region so that traditional food can also be used as a medium for social interaction between communities.

1.8 Previous Studies

The first previous research is a journal entitled Digital Storytelling Resources for Critical Listening: A CEFR-Based Approach for Middle Schoolers. By Fitri Jayanti and Lala Bumela Sudimantara. This study aims to improve students' listening skills and improve CEFR-based digital storytelling resources as a pedagogical practice. Qualitative data with research and development (R&D) design found that the creative process carried out included analysis of learning plans which according to researchers still rely on traditional teaching methods, using the Reading for Emotions approach as a learning aid to analyze texts and text analysis based on CEFR levels using a virtual writing tutor website. In this study, the results of the characterization of the creative process in the form of the creation of a product prototype, namely CEFR-based digital storytelling resources for critical listening. This study uses a curriculum engineering approach that prioritizes student-centeredness and Differentiated Learning compared to the uninformative approach based on rhizomatics that focuses on endless learning. The difference with this study is in the object of research, namely digital photobooks, while previous studies were listening skills.

The second previous study is *Designing a CEFR-Based Reading Worksheet for 7th Grade Students at SMP Muhammadiah Tilango* by Sitti Suhartina Taib Abdulla. This research is aimed to analyze the students' needs in reading and develop a reading worksheet based on the Common European Framework of Reference CEFR) at seventh-grade students' of SMP Muhammadiyah Tilango. To determine the students' needs, this research used the theory from Hutchinson and Waters and the ADDIE model to develop the product. However, this research simplifies the ADDIE model into four steps because of the time limit. This research used observation, questionnaire, document analysis, and expert judgment to collect the data. The design of the product was according to the reading comprehension based on CEFR. In order to test the feasibility of the product, there were two experts as the validator, the first one was the English teacher, and second is the lecturer who

has experience in developing a book. Moreover, after the product was validated, then implemented to the students.

The third previous study is *Developing A Cefr-Base Digital Writing Resources Of Explanation Genre For Middle School Students In Cirebon* by Muhammad Rafi AL Farisi. This research was conducted within qualitative research and development which the it can bring up digital learning resources for writing explanatory texts based on the Common European Framework of Reference for Languages (CEFR). This Research is expected to produce more research on the development of learning English that helps students write critical for the next day.

The fourth previous study from the thesis *entitled Developing Digital Literacy Resources For Middle School Students: A Highlight On Literacy Level* by Nindy Dwi Helyanti. These studies suggest that embracing a brain-compatible approach is the prerequisite for transformative pedagogy. In line with these studies, this study provides an innovative prototype of story-based digital literacy learning resources. The study was undertaken within a qualitative Research and Development framework. All research steps (Research and Information Collecting, Planning, developing preliminary Form of Product, and Evaluation) were completed. The result shows that this new digital literacy resource is applicable in the current curriculum context with some expected future improvement. This study is expected to generate more research on the development of brain-compatible digital literacy resources.

The fifth previous study from the journal titled *Re-invigorating the photo album: augmenting printed photobooks with digital media* by Emily Corrigan Kavanagh, David M. Frohlich and Caroline Scarlesaims. The purposes of the study is to develop a 'next generation paper' authoring system that enables annotating photo books with multimedia content that can be viewed via smartphones. This research explores how combining physical and digital media can give new life and meaning to traditional photo albums. Using this system, the authors hope to raise awareness of the multisensory aspects of travel, enrich memories, and increase social interaction around photos. The method used in this research involved piloting the system by nine travelers who used it to create an amplified photo book after

their trip. The research incorporated a qualitative approach by collecting data through interviews and participant observation during the photo book creation process. The results of this trial suggest that amplified physical and digital photo books can enrich the user experience and provide new insights into how technology can be used to support memories and social interaction.

The sixth previous study from the journal article entitled *Exploring the Dimensions of Local Food Tourism in Cirebon* by Sri Widya Wijanarti and Ambara Purusottama. This study aims to understand the consumption habits of local food tourists in Cirebon. The method used was a survey of 337 culinary tour participants in Cirebon. Data were analyzed using descriptive statistical methods and Independent Sample T-Tests to measure culinary attributes, culinary experiences, and culinary atmosphere perceived by respondents. The results showed that respondents gave a positive response to the culinary attributes, culinary experience, and culinary atmosphere in Cirebon. This study provides a new perspective for practitioners and stakeholders on aspects that need to be considered in the development of culinary tourism in Cirebon. The study also adds to the food tourism literature by effectively elaborating the concept of local food tourism

The similarities between previous studies and this study lie in the use of CEFR (Common European Framework of Reference for Languages) as a reference framework in developing English language learning materials, the Research and Development (R&D) approach in the media development process, the focus on digital-based learning media, and the main objective to improve students' literacy skills, especially in reading and writing. However, there are some significant differences. This study specifically develops a Digital Photobook that explores Cirebon traditional food as the main content, while previous studies focused on digital storytelling for listening (Fitri Jayanti & Lala Bumela), CEFR-based worksheets for reading (Sitti Suhartina Taib Abdulla), digital writing resources (Muhammad Rafi Al Farisi), and digital literacy resources (Nindy Dwi Helyanti). In addition, this study emphasizes the aspect of local wisdom by raising the theme of Cirebon traditional food, which is different from other studies that generally do not focus on local wisdom, except for research by Sri Widya Wijanarti & Ambara

Purusottama which highlights Cirebon culinary tourism in the context of tourism, not learning media. In terms of learning media, this thesis develops an interactive CEFR-based Digital Photobook, different from other digital media developed in previous studies. In addition, this study carries a multimodal and multisensory learning approach through visualization of traditional food in the form of a digital photobook to increase students' interest in reading, while previous studies tend to focus on developing certain skills (listening, reading, or writing) without specific visual exploration. The focus of education in this study is also more specific to junior high school students in Cirebon with a contextual approach to local wisdom, different from other studies that are more general and do not emphasize specific location aspects.

Finally, this research was made to develop a digital photobook-based CEFR to help attract students' interest in literacy, especially in reading. Students' interest will decrease or even disappear if the learning media is delivered in a mediocre way. In this case, the researcher made a digital photobook with traditional food as the material to be able to help attract students' attention so that they are not easily bored in learning. From previous research, it was found that digital photobook products obtained good results in the recapitulation of validation by media experts. However, there is no mention of what criteria make digital photo books attractive. This research will produce an interesting digital photobook product to help attract students' interest in literacy, especially in reading.

1.9   Frame of Thought

In terms of research background and topic, this research contains various components. The main theme of this research is the development of digital learning media in the form of digital photo-books to help students' literacy, especially reading in middle school. The figure below illustrates the framework of this research and how each part is interrelated to each other.
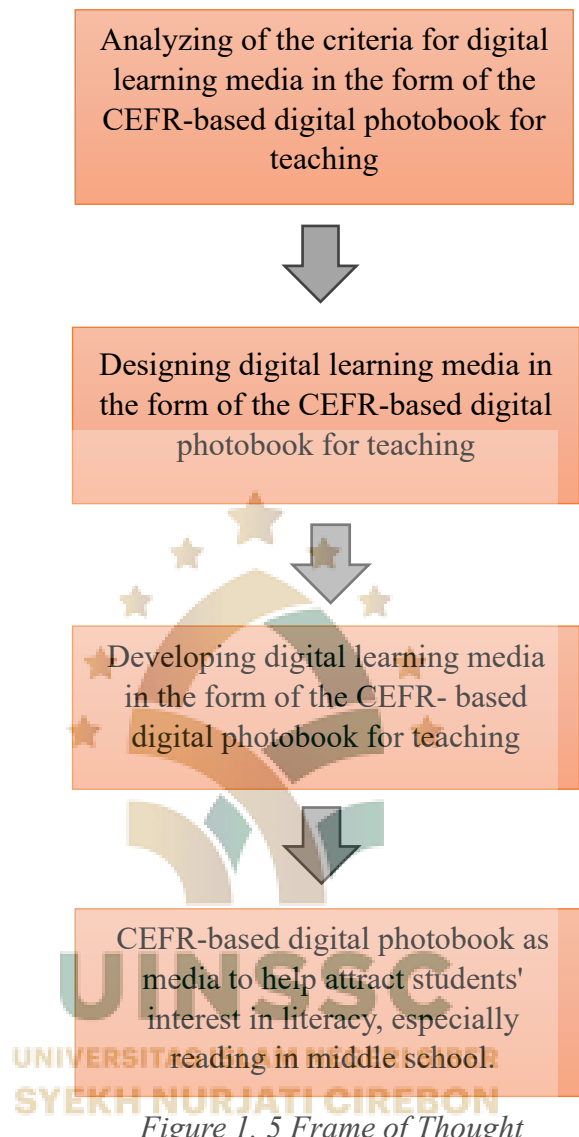
Figure 1. 5 Frame of Thought

1.10 Research Method

The research methodology consists of the following steps: design and steps of the research, sources, and types of data, data collection techniques and instruments, data analysis techniques, and research timeline.

1.10.1 Research Design and Steps of the Research

This research uses a qualitative approach since it does not focus on numbers or values when assessing its variables and does not employ statistical approaches that rely on numerical measures (Rajabi, 2019). The research and development

(RnD) method was applied in this research. Research and Development (RnD) is a type of research methodology. This strategy is one of the research strategies or approaches widely used to solve practical issues. RnD refers to the process of developing new products or improving existing ones through research activities that can be tracked. The products produced are not only limited to media, tools, or teaching materials. But more than that, this method also includes procedures, for classroom management. According to Gall and Borg (2003: 569), research and development is an educational development model for designing new products or procedures. It will obtain the same effectiveness, quality, and standards by being systematically tested in the field, evaluated, and then improved.

Research and Development (RnD) in education includes various processes that involve researching and developing products or services to be introduced. The outcomes of this research and development include not only the improvement of existing products but also the discovery of new knowledge or solutions to practical problems. The main goal of this RnD method is to create innovative environments that can help students achieve their learning goals more effectively. This methodology uses research findings to design new products and processes, as well as justifiably improve existing ones. The resulting innovations will be thoroughly field-tested, evaluated, and refined until they meet various criteria, such as profitability, quality, or other standards. Gall and Borg (2003) proposed an RnD model consisting of ten main processes. This model includes ten main phases as follows: 1) Research and information collecting, including needs analysis, literature review, small-scale research, and standardized reports. 2) Planning, especially research planning, which includes developing research objectives, estimating funds, manpower, and time. 3) Developing the initial product. 4) Initial Field Testing 5) Main Product Revision 6) Main Field Test. 7) Operational Product Revision, which will solidify the product being developed. 8) Operational Field Test 9) Final Product Revision, which will perfect the product being developed and provide reliable "generalization" value. 10) Dissemination and implementation, which includes initiatives to communicate the results of product development to potential consumers and stakeholders in the education sector (Meredith D. Gall et al., 2003).

The ten steps in the RnD process can be customized and only the steps relevant to the current research will be applied.

However, depending on the duration of the research, funding, and the skills of the researchers, the design and development project may be broken down into several smaller projects. In this study, the process is limited to three stages, which were chosen based on time constraints and the specific needs of the researchers. They will focus on research and information gathering, planning, as well as creating an initial version of the product, which is considered sufficient to assess the validity and efficiency of the developed learning media.
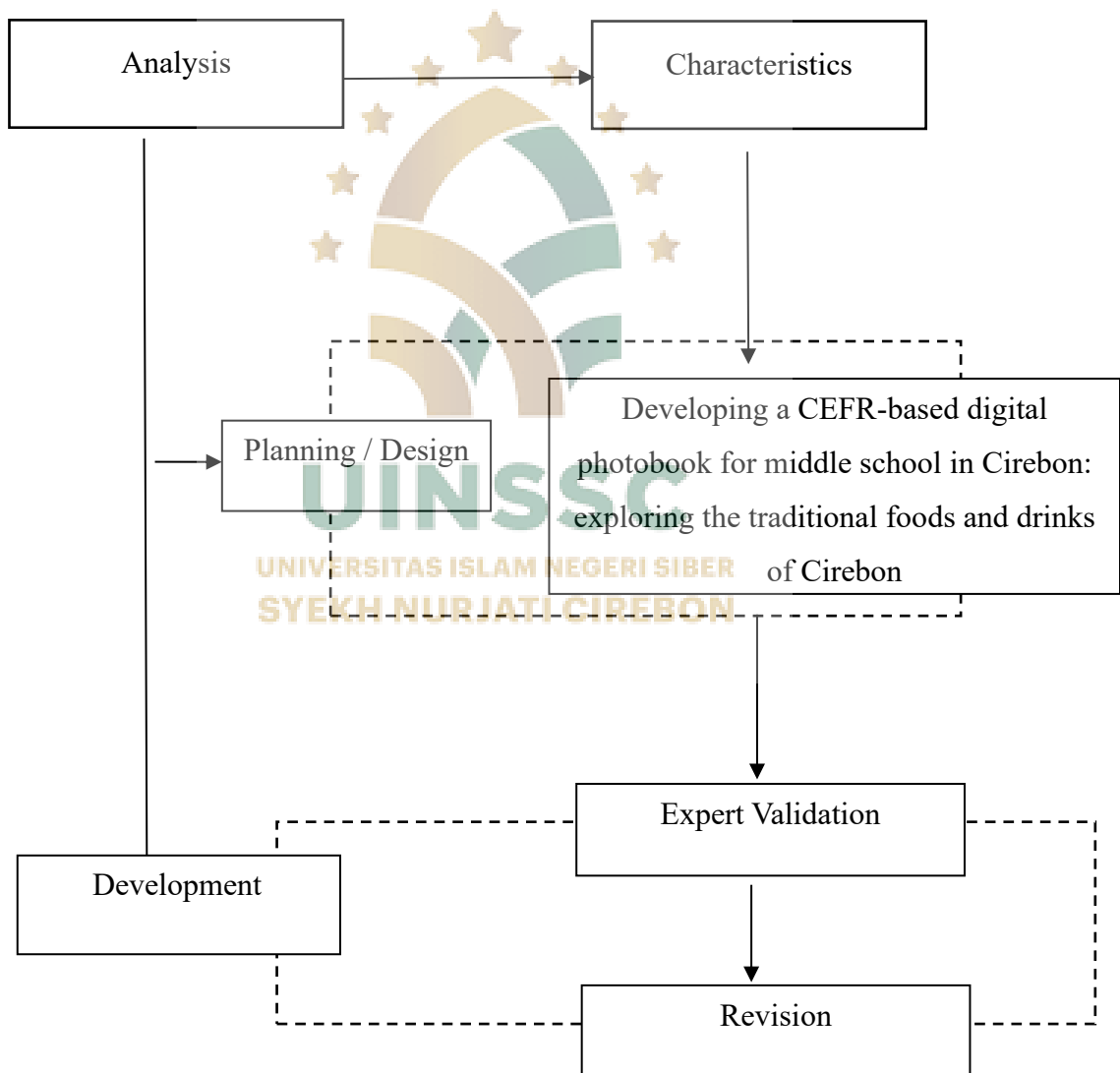

Figure 1. 6 Steps of the Research

The procedure for research and development of CEFR-based digital photobook design includes several stages as follows:

1. Analysis: This step involves research and information gathering, including literature review, needs analysis, and framework development. At this stage, an observation approach is used to understand the learning situation through interviews with teachers and students. The aim is to collect comprehensive information and data on the development of learning methods using digital phtobook. The data obtained needs to be processed and used in the next stage, which is media design and product creation.

2. Planning: This stage involves developing skills and expertise relevant to the research problem, setting objectives for each stage, and outlining the research steps and feasibility studies required.

3. Development: This research and development resulted in the creation of digital photobooks as digital media that help learning. Website is used to create and develop CEFR contained in the product. The researcher also utilized Website to design attractive visual elements in making the digital photobook. At this stage, the supporting components, instructions, and manuals were produced and analyzed to form the initial educational product, often referred to as the 'test product'. In addition, the validation procedure of the developed media is strengthened to ensure its suitability.

1.10.2 Sources and Types of Data

This type of study uses qualitative research methods. Researchers used a triangulation technique to collect data, which combines several data collection techniques (Suryana, 2010). The notion of "data sources" includes various types of information, such as events and objects in real life. According to (Maryadi, et al., 2011) Data sources refer to a variety of information collected such as individuals, events, activities, documents, files, or other objects. Sukandarrmudi (2006) states that data sources in qualitative research are not subjective, so they must have good quality.

In this study, the sources of information include the subjects and objects of research. A data source is a collection of information that the researcher can access to fulfill his/her information needs during the research. Research participants consist of students and teachers, while the research object is the place where data is collected to achieve the research objectives. This research focuses on the junior high school environment.

This research uses two types of data: primary data and secondary data. Primary data refers to information collected through interviews with teachers, specifically for the creation of digital photobooks to attract students' interest in reading. On the other hand, secondary data is information that comes from documents or reading sources, such as websites, books, journal articles, and so on that are used to complement the research findings obtained from the main source, which is interviews.

https://sites.google.com/view/digitallanguage/home

1.10.3 Data Collection Techniques and Instruments

Research instruments play an important role in research data collection. In descriptive qualitative research, the main instrument is the researcher himself (Nurhamida, 2018). The methods used include observation and interviews:

1. Observation

The researcher in this study used structured observation to gain a deeper understanding of aspects related to the research problem. This type of observation provides more flexibility in observing the research object based on the facts found at the research location (Lede & Swarniti, 2020). The observation conducted by the researcher focused on the environment and facilities at SMPN 7 Kota Cirebon. In addition to observing the school environment, the researcher also observed what facilities were available at SMPN 7 Cirebon related to the implementation of literacy programs, especially reading. Through this observation, the researcher can assess the implementation of literacy culture at SMPN 7 Kota Cirebon.

2. Interview

An interview is a technique to obtain oral information from individuals who are the focus of research. It involves an interaction of the participants' conceptual systems, leading to changes in these systems and the creation of a unified text (Jabborova, 2023). Researchers conducted interviews with teachers who were active in the learning process, creating a relaxed atmosphere to minimize informants' tension when answering researchers' questions. Full details of the interviews are listed in the appendix.

1.10.4 Data Analysis Techniques

After collecting data from interviews with teachers, researchers analyzed the data carefully and thoroughly. This analysis focuses on identifying the characteristics of digital photobook that are appropriate to integrate into the development process. According to Creswell, J. W., and Creswell, J. D. (2018, pp. 267-272), data analysis involves three main activities: data reduction, data display, and conclusion drawing/verification.

1. Data Collection and Organization

Transcribe the interviews and prepare the data for analysis. This involves collecting open-ended responses by asking general questions and developing an analysis of the information provided by the participants

2. Read and Code the Data

Read the interview transcripts to gain a general understanding of the material, then code the data by dividing the text into segments of information and labeling them with codes that represent themes or concepts.

3. Identify Themes and Concept

Categorize the material into groups and make them into concepts and then identify the main issues or themes that emerged during the interview and relate the data to these themes and concepts, and analyze the relationship between them.

4. Use of Computer Programs

Consider using computers and websites to aid analysis, especially for handling and coding extensive qualitative data.

5. Summarize Main Themes

After processing and analyzing the data, summarize the main themes and their link to the study question instead of all the individual responses.

By following these steps and techniques, researchers can effectively analyze observation and interview data to identify patterns, themes, and insights related to the research question.

1.11 Research Timeline

Table 1. 2 Research Timeline

No	Activities	Time Allocations				
		November	December	January	February-August	September-October
1.	Applying Proposal					
2.	Proposal Seminar					
3.	Conducting Research					
4.	Collecting Data					
5.	Analyzing Data					
6.	Finishing Thsesis Writing					