CHAPTER 1

INTRODUCTION

1.1 Background of the Research

Indonesia is a subject with a low level of literacy. The rate of literacy in Indonesia has remained stagnant for years. Literacy is a fundamental skill that pupils must master before gaining access to other types of knowledge. Literacy is the essential requirement for comprehending any field of study (Alwasilah, 2014). According to English First (EF) Education's November 2021 report on the English Proficiency Index, Indonesia ranks 80th out of 112 countries and 14th in Asia. In the 2018 PISA (International Program for Student Testing), Indonesia scores 73rd out of 80 nations that participate in this international assessment, providing further evidence that Indonesia has a poor level of literacy. The final one The Indonesian press bemoaned the results of the World's Most Literate Nations report, which ranked Indonesia sixty-first out of sixty-one nations based on a combined assessment of literacy and literate conduct. Indonesia continues to face this difficulty. Furthermore, it focuses on pupils who believe that studying English is tough and monotonous.

The above problems occur because learning in Indonesia is still traditional teaching that focuses on rote memorization. Students seem to be required to be able to memorize material (including grammar) even though English is not only a matter of grammar. According to Sudimantara (2021) the traditional pedagogy focuses on teaching the students about the world. The teacher basically holds the full authority in the classroom, where the teaching-learning process is directed solely to conform to the grammatical lists or linguistic description created by the linguists (pedagogical grammar). Learning does not always come from textbooks. Currently students can learn from various sources. Learning in the 21st century makes students able to learn automatically and independently. The teacher is here as a facilitator in terms of guiding and directing students in the learning process. As stated by A. Lian & Pineda (2014) in their discussion of rhizomatic learning, self-adjusting personal learning networks established by the learners themselves are utilized to satisfy perceived and actual demands. Students navigate through

nodes of knowledge representations or relevant challenges and, in turn, construct personal knowledge organically, as opposed to following an arbitrarily predetermined external pedagogic sequence, such as a curriculum mandated by an authority structure such as a school or government. Based on the problems above, it can be concluded there is a need to create a flat form for reading sources in digital form. It is accessible, free of charge, and can promote students' autonomous learning, and self-assessment for students' literacy level.

The creation of digital literacy tools in the event of a literacy emergency in Indonesia will aid in overcoming existing difficulties, such as the low literacy rate and the declining English proficiency index. One of the components of the Framework for 21st Century Learning is digital literacy. Today, we live in a technologically and media-driven society characterized by access to an abundance of information, rapid developments in technological tools, and the capacity to interact and make individual contributions on a scale never before seen. Information Literacy, Media Literacy, and ICT (Information, Communications, and Technology) Literacy are examples of functional and critical thinking abilities that effective citizens and employees must possess (Framework for 21st Century Learning, 2009). "EFL students must increase their digital literacy skills to satisfy 21st-century skill requirements." (Eryansyah et al., 2019, p. 455).

To discover more about developing digital literacy resources for middle school students: a highlight on lite-racy level is, necessary to understand the design and the components that go into it. This study includes several clusters. First is **Literacy level** (Darmiyanti, A., & Taufik, M. 2021, Suwono, H. 2016, and Sampurno P.J., Sari, Y.A., & Wijaya, A. D. 2015). **Digital literacy** (Buckingham, D. 2015, Burnet, C. 2014, and Anthonysamy, L., Koo, A. C., & Hew, S. H. 2020). **English Proficiency Indeks** (Dewi, R., Kharisma, A. P., & Dewi, C. 2020, Hanif, W. & Rachminingsih, I. 2020, and Andan, F. M., Rosmalina, I., & Loeneto, B. A. 2019). **Transformative Pedagogy** (Pavlou, V. 2020, Ajayi, L. 2008, and Branchetti, L., Capone, R., & Rossi, M. L. 2021).

Several researchers have conducted study on developing literacy level. Those are Buckingham, D. (2015), Burnet, C. (2014), and Anthonysamy, L., Koo,

A. C., & Hew, S. H. (2020). Those studies already show the elements of the digital literacy but didn't mention 21st century skill and did not include material of literacy based on student literacy level.

The critics above are considered important to discuss. The researcher figured some missing points out from the research above. First of all, those researcher did not mentioned 21st century skill. This point is important, because in 21st learning 21st century skill must be included. Second, the missing point is that they did not add reading correlation chart. This point most important thing to know the correlation among the level literacy, age of students, and type of texts that must be read for students to develop literacy level. Select the proper book band, reading level, or reading age from the correlation grid to match your child's reading needs to any PM or Fat Forward series (Scolastic, 2021). Third, they have not added books characters or texts that chosen based on students' literacy level. Thus students can self-assess and become autonomous learners.

The criticisms that have been mentioned are deemed necessary to be considered. The preparation or development of digital literacy resources is considered important involving reading correlation charts and books characters. The criticism focuses on how to develop digital literacy resources for middle school students: a highlight on literacy level. It is intended that as a result of these criticisms, the construction of developing digital literacy resources would be better and useful.

Based on the case study above, this research has the title "Developing Digital Literacy Resources for Middle School Students: A Highlight On Literacy Level". This research discusses how Literacy level of middle school students is developed by Digital Literacy Resources.

1.2 Identification of the Phenomenon

Indonesia has a learning loss, when students' in a crisis love of learning. And also Indonesia in crisis literacy, based on English Proficiency Index we are still low levels in one decade. The issues faced by pedagogy has teacher used at school. We still used expired pedagogy in English language learning. Students are

lazy to read because learning material are not interesting and only focuses on grammar structure. Issues faced by students may be because the learning material is not fun for learning. Here are some other issues that are common and have happened recently in the learning process, especially in discussions about expired pedagogy:

1) teacher-centeredness
2) monomodal learning material
3) grammar-based learning
4) has not learning tool to activate brain-compatible

Based on the issue above, the researcher was developing literacy resources as learning material that build student-centeredness, multimodal materials (story-based material), and used Reading for Emotion as learning tool that activate brain-compatible. Thus, students' literacy level has developed.

1.3 Delimitation and Focus of the Research

The focus of the research that is focuses on developing literacy resources for students in junior high school. With digital literacy resources, students' to be able to developed their literacy skills. As previously noted, English proficiency index in Indonesia has a low level.

In this study, there are six points as the objectives of this study. The six points are as follows:

1. Helping students to map their literacy level.

2. Helping students learn based on literacy level.

3. Helping students to learn with acceleration level.

4. Helping students to maximize their multisensory aspect.

5. Helping students to increase their English Proficiency Index.

6. Helping students with differentiated learning (based on literacy level and the student needed).

1.4 Research Questions Based on the research phenomenon, the research questions are as follows:

1. What types of digital literacy resources are needed to help students learning?

2. To what extent do those digital literacy resources create compatibility with the literacy levels of students?

3. How the teachers' opinion about Digital Literacy Resources in this research?

1.5 Aims of the Research

As formulated in the research questions, the aims of this research are:

1. To reveal the types of digital literacy resources needed to help students learn.

2. To reveal what extent these digital literacy resources create conformity with students' literacy levels.

3. To reveal the English language teachers' opinion on the utility of the digital literacy resources.

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 English language teachers and future researcher:

1. English Language Teacher

English language teacher has designed innovation learning prototype to support for teaching and learning processes, this statement based on curriculum prototype 2022. Strengthening teaching, learning, and assessment are priorities in supporting innovation in schools. Teachers have to build a new interdisciplinary knowledge as the foundation of transformative pedagogy. All activity focuses on student-centered learning.

2. Future Researcher

This research is expected to generate more research on developing digital literacy resources that are compatible with the brain. The discussion about neuroscience learning is still rarely discussed. However, teachers

must start to realize learning neuroscience, and neuroscience is one of the aspects needed in our transformative pedagogy.

1.7 Theoretical Foundation

This research consists of several uses of theory. This subtopic describes a literature review related to the research topic. The theories in this research are as follows:

1.7.1 The nature of Learning

In this first theoretical, namely the nature of learning, this sub-chapter describes several theories of learning (pedagogy) or how human learn. As follows:

Autonomous learning is one of the aspects contained in 21st century learning. Autonomous learning can occur when a learning process is student-centered. Students use the personalized style of learning known as autonomous learning to determine their own learning preferences and learning priorities, to select the most appropriate technique for their own learning, as well as to track and measure their level of success in their educational endeavors (Zulaihah & Harida, 2017; Afdillah , D. N., 2021). In autonomous learning, students will find their own learning patterns. Teachers as intelligence facilitators who make creative innovations for teaching. Innovation of learning is needed in this situation, where students learn independently with interesting learning tools so that learning activities can run well. According to A.-B Lian (2020; 2017) introduced an innovative learning tool (Reading for Emotion) to help students learn in a critical and reflective without relying on pedagogic grammar. In the process there is explanatory learning or students learn by analyzing texts by comparing and contrasting what they see in texts and why from the perspective of emotions. In addition to learning tools, teachers also need to prepare multimodal learning materials; consists of various types such as audio, video, text, and video movement. In addition to multimodal learning, this is also to stimulate students' sensory or we are more familiar with the term multisensory learning. In these multimodal materials, students also learn to use interrelated sources (rhizomatic learning).

1.7.2 Principles of the Multisensory Approach

Human brain does not perceive reality directly: people perceive hearing or seeing thin gs only after they have already processed information against the multiplicity of multisensory connection (Damasio, 2014; Peterson, 2011). Richards and Rodgers (2001) define an approach as a theory concerning the nature of language and language acquisition. The source of language teaching techniques and principles was a single methodology. This approach encompasses both linguistic theory and language acquisition.

Multisensory refers to the process of learning a new subject through the use of two or more senses (Kelly, Rains, and Durham, 2008). VAKT, which stands for Visual Auditory Kinesthetic and Tactile, is another name for the multimodal method. Baines (2008) believes 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). This strategy is recommended for teachers who work with students with diverse learning strengths (Moustafa & Martin, 1999).

1.7.2.1 Multisensory Approach in English Language Learning

Students require assistance based on the principle of learning, not instruction (A, -B Lian, 2017). Multisensory Approach is designed for students of all ages, not simply those with learning impairments. Dewi (2015) indicates that everyone can benefit from a multimodal approach to learning. The multimodal approach is effective in giving toddlers with sensory integration, tasks, and learning experiences (Martin & Moustafa, 1999). Teachers employ a multimodal approach by incorporating visual, aural, kinesthetic, and tactile components. It is anticipated to be included. Due to the diversity of these aspects, according to Reid (2005), children are supposed to have a unique experience with language so that they can learn and recall better than through dictionaries and books.

The multimodal method can also provide learners who are susceptible to

a certain element with the chance to learn from other elements that are their learning strengths. For instance, children who have trouble acquiring knowledge through the auditory modality are given the opportunity to learn through more effective modalities, such as the visual and kinesthetic ones.

1.7.3 Transformative Pedagogy

Alexander (2008) defines pedagogy as the act of teaching and the accompanying discourse of educational theories, ideals, evidence, and reasoning. It's what you'll need to know and the skills you'll need to acquire in order to make and defend the numerous types of decisions that comprise teaching. Lewin (1948) refers to a transformative cycle consisting of "action stages" intended to effect change. Thus, transformative pedagogy is a change in how pupils are provided with knowledge.

Farren, P. (2019) identifies the 'transformative pedagogy' variables that promote autonomous language instruction and learning. They include a number of "new" literacies, such as intercultural literacies, as well as traits that enable language instructors to develop a more complete identity as practitioners, academics, and leaders.

Thus, transformative pedagogy here is a change in providing knowledge to students, especially on literacy points. With the digitization of digital literacy resources following 21st century learning, namely independent students. Pedagogy has evolved into obscurity, both in Indonesia and in the world of science in general. No wonder two decades ago Mochtar Buchori (1994), provocatively uttered, "The Death Bell for Education in Indonesia". This pedagogic condition is interpreted by Tilaar (2012), due to the praxis of education in Indonesia running in a state of "business as usual." This means that since the pre-colonial period, during the colonial period, the period of the first awakening with the birth of the national movement, the proclamation period until now, pedagogy or education in Indonesia has never been questioned about its theoretical basis. The pedagogy section is divided two smaller sections: transformative goal and innovative goal.

1.7.3.1 Transformative goal

The decentralized pedagogic orientation implies the responsibility of distributive leadership in managing the national education system; while autonomy means a macro education strategy that is directed at developing the uniqueness and independence of the Indonesian nation. That is, the blue print of national education must be philosophical and cultural which ensures that dignified and sovereign Indonesian people are not deprived of their cultural roots as the Indonesian nation.

In educational practice, transformative pedagogy is an effort to develop Indonesian people from what they are to what they should be (Sunaryo Kartadinata, 2011; 2012). Transformative pedagogy must be seen as one of the manifestations of the excellence of the Indonesian people, especially educational scientists. For this reason, it is necessary to oversee the development of transformative pedagogics. Inspired by the formation of concepts, the minimal development of transformative pedagogics is indicated by the frequent use of terms, forms, and activities.

1.7.3.2 Innovative goal

The innovative goal section is devided three smaller sections: innovative pedagogy early days, innovative pedagogy now, innovative pedagogy of future.

Table 1.1 Innovative goal

| Innovative pedagogy –early days | ▪ Innovation pedagogy emphasized that education should not begin with knowledge and then move to its application; rather, new material must be instantly implemented in real circumstances, even before it has been assimilated. In other words, innovation pedagogy integrated learning with the generation and application of knowledge. |
| | ▪ This entailed applying existing learning and teaching methods in a creative, value-adding |

	manner, developing new methods, and ensuring that students take responsibility for their learning and actively pursue their learning objectives.
	▪ The goal was for graduating students to have both innovative and development-oriented professional skills and qualifications.
Innovative pedagogy-now	▪ Innovation pedagogy requires systemic thinking, as each action must be evaluated in relation to its repercussions and other acts. Collaboration and inclusivity are at the heart of innovation pedagogy's methods of action. Rarely are innovations developed by a single individual, but rather by a group of individuals interacting and possessing diverse skills and abilities.
	▪ Students are expected to become active contributors to the various innovation processes they will encounter when they enter the workforce; therefore, the objective is for them to develop the knowledge, skills, and attitudes related to their study field-specific competences and the ability to act innovatively even while they are still in school.
	▪ These learning outcomes, which are generic and shared across all study domains, are referred to as innovation skills, and they may be grouped into individual, interpersonal, and networking competencies, all of which are required to generate new knowledge. (Marin-Garcia et al., 2016; Kairisto-Mertanen, Penttila & Nuotio, 2011; Keinanen et al., 2018.)

	▪ According to the most recent study, innovation abilities consist of five characteristics that emphasize creativity, critical thinking, initiative, teamwork, and networking (Fincoda, 2017; Marin-Garcia et al., 2016).
Innovative pedagogy-on future	• The objective of innovation pedagogy is not only to provide competencies for the workplace, but also for a good life and a sustainable future; competencies that help build sustainable societies, teach us to think beyond ourselves, consider nature in all of our actions, and comprehend what is right in the face of new and changing circumstances. Therefore, the most recent definition of innovation pedagogy acknowledges and stresses both personal development and ethical and value-based development. • The world around us is in a constant state of flux, and education must be a step forward if we are to be able to adapt and influence its direction.

1.7.4 Digital Literacy

According to Jones and Flannigan (2006) digital literacy is the ability to comprehend and use information in varied formats from a wide variety of sources when it is supplied via computers... (You) must not just learn how to find things, but also how to use them in your daily life. To obtain digital literacy for Internet use, one must master a set of essential skills. Digital literacy is, in a nutshell, the ability to navigate digital media for information and communication, as well as the ability to use them effectively, creatively, and responsibly.

EFL teachers and students must possess three qualities in order to be deemed digitally literate. The three components are information literacy (IL), information and communication technology (ICT) skills, and media literacy (ML) (Chu, Reynolds, Tavares, Notari, & Lee, 2017). Chu et al. (2017) define information literacy as the ability to effectively and ethically select, analyze, and use information to acquire, apply, and share knowledge. ICT skills are the ability to access, manage, integrate, assess, and generate information using digital technology, communication tools, and/or networks, whereas Media Literacy is the ability to access, analyze, evaluate, and communicate messages in a variety of formats.

In today's world, being technologically knowledgeable is seen as essential. Teaching English as a foreign language (EFL) has never been easier for tech-savvy EFL educators thanks to the proliferation of digital media and the fact that most students are already digital natives. Prior to implementing an ICT program in the classroom, teachers of EFL should assess their students' current digital literacy levels and any other factors that may impact their ability to effectively use ICT. Students can fulfill the demands of the 21st century by developing their digital literacy in this manner (Eryansyah et. all, 2019).

1.7.5 21st Century Learning

The change in the mindset of humans in the 21st century also necessitate a significant change in national education, as we know that our education is a legacy of the old education system, which emphasizes the memorization of meaningless facts. Changing the education system in Indonesia is a simple task. The Indonesian education system is one of the largest in the world, with approximately 30 million students, two hundred thousand educational institutions, and four million educators spread across an area roughly the size of Europe. But this change is necessary if we do not wish to be swept away by the global era of transformation.

P21 (Partnership for 21st Century Learning) creates a framework for learning in the 21st century that requires students to have skills, knowledge, and

abilities in the fields of technology, media, and information, learning and innovation, and life and career skills (P21, 2015). This framework also describes the skills, knowledge, and abilities that students must master to be successful in life and the workplace.

1.7.6 A New Approach of Learning

In this section, we will describe the new teaching and learning tools that are currently in use. Then, this learning tool stimulates how the human brain functions. Here are the new educational resources:

1.7.6.1 Stories in our Brain

When we listen to wonderful storytelling, our brains undergo two changes: one neurological and one chemical. Two parts of our brains light up when we hear straight facts: language processing and language comprehension. However, when we listen to stories, our cerebral activity increases by a factor of five. We use our motor cortexes, as well as our emotion and visual image processing centers, to imagine sensations and process emotional responses. This means that we are using more of our brains, making us more engaged in the story and more likely to remember it. When we hear stories, our brains release oxytocin, a bonding hormone that causes us to care deeply about the people involved. This is why we sometimes treat fictional characters as if they were real people, why sharing personal stories is the quickest way to connect with strangers, and why storytelling is a politician's most powerful tool. We are not just hearing about someone's experience; we're also living it. The more we tell about their experience, the more oxytocin is released, and the more likely we are to internalize and remember that story afterwards. The audience is deeply affected by a well-told story. In fact, one well-known statistic claims that messages given in the form of stories are up to 22 times more memorable than facts alone. (Zidan, 2018).

1.7.6.2 Reading for Emotion

Reading for Emotion is a new learning tool introduced by A.B, Lian (2017). This learning tool uses emotion in its approach. The concept is based on research by Damasio and Immordino-Yang (2007) and Immordino-Yang (2009), which show that emotions are the most basic processes that people use to make sense of the environment. Emotions are the fundamental mechanisms that shape our lives; "I feel therefore I am" (Damasio, 1995). Students must "comprehend" not vocabulary or grammar, however the emotional relevance of the structures, "the manner in which emotions are converted into a text to provoke a desired effect in the interlocutors," according to Lian (2017, p. 6). She claims that paying attention to emotions allows students to engage with texts from the perspective of their own personal experiences, to analyze texts by comparing and contrasting what they notice in texts and why, and to engage with texts from the perspective of their own personal experiences.

1.7.7 International outlook Indonesian Education Quality Indonesia
1.7.7.1 Common European Framework of References (CEFR)

Common European Framework of Reference for Languages (CEFR) is an international standard for describing language proficiency. It assigns a six-point scale to language proficiency, ranging from beginning (A1) to elementary (A2) to intermediate (B1) to advanced (C1) to proficient (C2). This enables anyone involved in language education and testing, such as teachers and students, to rapidly evaluate the level of different qualifications. The CEFR Framework is comprised of the following levels:

Table 1.2 CEFR levels description

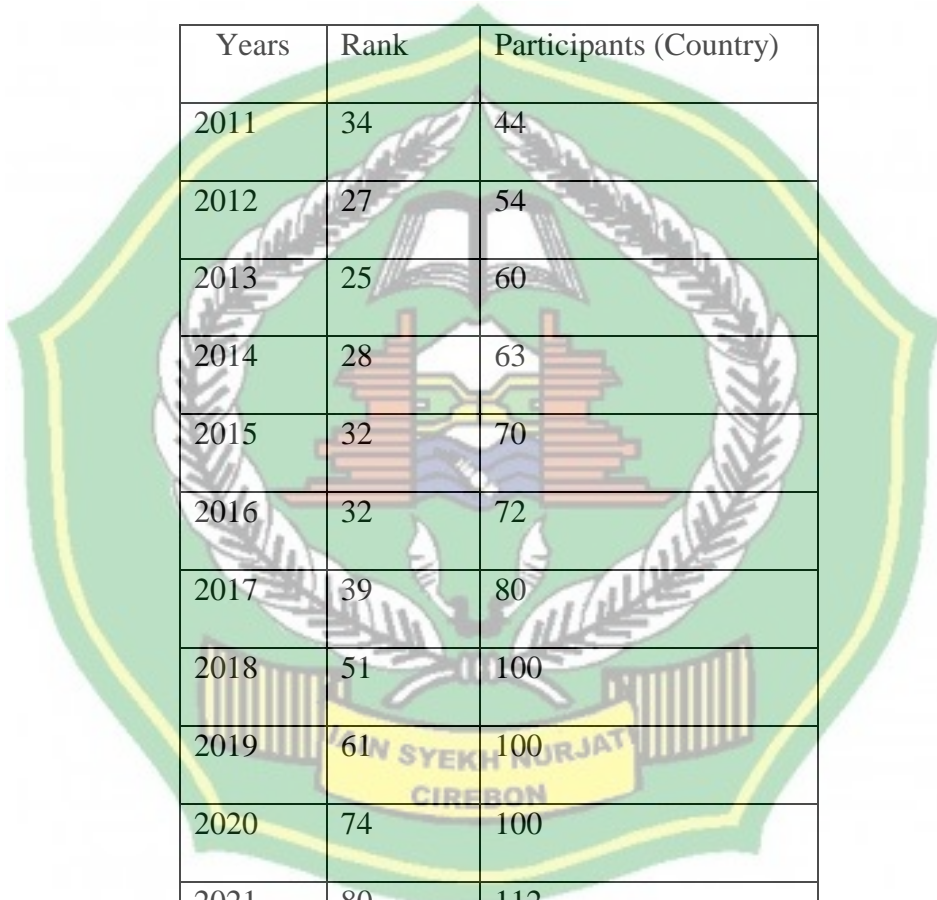| No	Level	Descriptions
1.	A1	1. can comprehend and use familiar everyday expressions and basic phrases to meet the requirement for concrete types. 2. Can introduce yourself and others and inquire about personal information, such as where he resides, people he knows, and what he believes to be his property. 3. Can interact with others without difficulty so long as they speak slowly and clearly.
2.	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.
3.	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.

4.	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 and explain points of view on timely issues, including the benefits and drawbacks of various options.
5.	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.

1.7.7.2 English Proficiency Index (EPI) Assessment

The English Proficiency Index is attempts to rank countries by the equity of English language skills amongst those adults who took EF (English First) test.

Table 1.3 Indonesian EPI Results

| 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

Table 1.3 shows that the Indonesian English Proficiency Index Result has still a low literacy level in one decade, we lose 64 points from 2012 until 2021. This result show meaning that Indonesia's literacy levels are truly in a crisis literacy situation.

1.7.7.3 Program for International Student Assessment (PISA)

The 2018 Program for International Student Assessment (PISA) results were released on December 3, 2019. The Program for International Student Assessment (PISA) is an examination administered by the Organization for Economic Cooperation and Development (OECD) to measure the quality of educational outcomes across the globe. PISA tests the reading, math, and science skills of randomly selected 15-year-old students from various countries every three years. According to newspaper citations:

- Indonesia has a reading problem. Despite a reported 95 percent adult literacy rate, the majority of available evidence indicates that the average Indonesian adult's ability to comprehend and utilize written information is shockingly low.
- According to the most recent PISA data (2015), more than 86 percent of Indonesian 15-year-olds read at or below PISA Level 2; that is, they are unable to consistently perform Level 3 skills such as "locating and recognizing the relationship between several pieces of information" in a text. These competencies are crucial for secondary and tertiary education.

Figure 1.1 Students Proficiency in Reading; PISA 2018
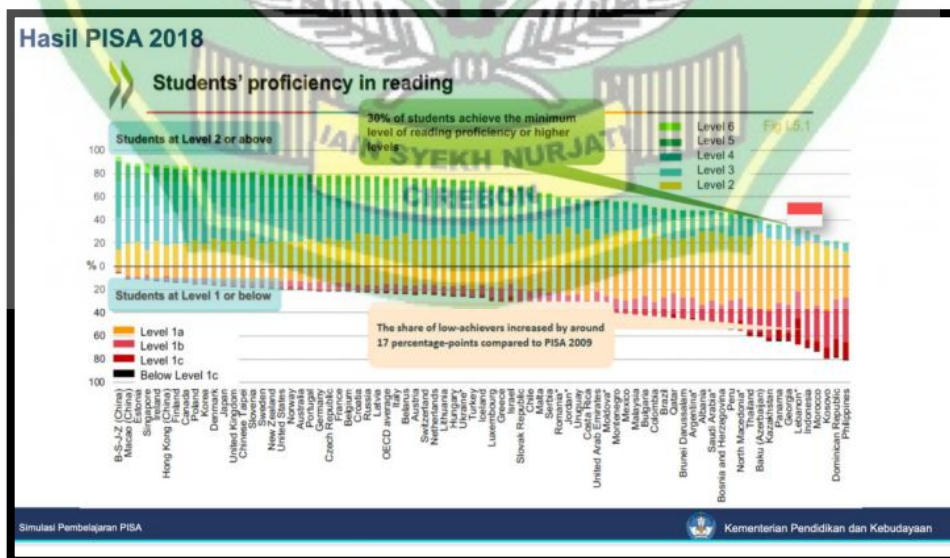
Source: Pusmenjar, Balitbang, Kemdikbud (2018)

From the 2018 PISA results above, we can conclude that Indonesia ranks 73rd out of 77 countries participating in the 2018 PISA assessment. Only 30% of students achieve the minimum level of reading proficiency or higher levels. This indicates that the level of reading ability of Indonesian students is still at a low level.

Low literacy levels can be influenced by several factors, such as developing countries, transformative pedagogy, and multisensory during the process of receiving information. Developing countries are influenced by digital skills in receiving information, with technology literacy from a young age will change a country to be more developed, it can be seen from the literacy level table that developed countries will be equal to the high literacy level of the country. Transformative pedagogy is a change in the teaching system or focus on how to teach with an arts. Study more seriously but fun. The last one is multisensory, when all the sensors in the human body can work together, the literacy process can easily run properly. A perception in reading is very necessary. Paul Pagliano (2012) says Perception is the process of being aware of, recognizing, and interpreting stimuli. From the habit of reading or literacy, humans are more sensitive to an event. So that he can receive, process, and then respond well. Besides that, you can also use Reading for Emotions with ICT Tools (Lian, A: 2017) in supporting literacy.

In addition to the general population's inadequate literacy and critical thinking skills, digital literacy education is generally absent from Indonesian schools. Information and Communication Technology (ICT) was a mandatory subject in the National Curriculum 2006 (also known as Kurikulum Tingkat Satuan Pendidikan or KTSP), but the content was limited to basic skills such as how to use a computer, computer applications, and devices to support study activities. In order to integrate ICT learning across all school subjects, the Ministry of Education removed ICT from the list of required subjects in the 2013 National Curriculum. (Bona, 2018). In contrast, many public schools responded by eliminating the subject entirely (Purbo, 2017). Other subject teachers were unable to include ICT in their lesson plans due to a lack of ICT skills and

expertise, while ICT teachers were confused by the topic's removal from the National Curriculum in 2013. (Subekti, Yudha, & Luqman 2016). Consequently, many students in Indonesia lack access to ICT education.

1.7.8 Innovation in English Literacy Pedagogy

Indonesia is in a literacy crisis, where the literacy results (English Proficiency Index or PISA Assessment) are still at a low literacy level from the OECD (Organization for Economics Cooperation and Development) countries that take the test. Thus, teachers need to innovate in English literacy pedagogy. As curriculum prototype 2022 says that teachers are given the freedom to develop their own pedagogy. This new pedagogy focuses more on student-centered, multimodal materials, exploratory learning, multisensory learning, and those made in digitization. Although learning is made in digital form, continuing pedagogy must be number one. "Understanding cannot be digitized" (Morin, 1999 p. 49)

1.8 Previous Research

There have been several researcher who conduct research with similar research topics or related to this study. Among them are research belonging to A.B, Lian (2017), A.P Lian (2015), and Sudimantara, L.B (2021). The three studies discuss strengthening literacy with new tools.

The first previous study belonged to A.B, Lian conducted in 2017 with the title of *Reading for emotion with ICT tools*. The study aims to introduced an innovative learning tool (Reading for Emotion) to help students learn in a critical and reflective without relying on pedagogic grammar.

The next research is entitled *Improving the English pronunciation of Chinese EFL university students through the integration of CALL and verbotonalism.* The study was conducted by A.P, Lian in 2015. The research presented developed an innovative and successful prosody-based English

language learning approach in Thailand, Vietnam, and China. These research suggest that embracing brain compatible approach is the pre-requisite for transformative pedagogy.

The last one research from Sudimantara, L.B. conducted in 2021. The research was entitled *Transformative learning and student agency in academic writing in undergraduate English Language Teacher Education degree programs in Indonesia*. This research aims to develops a new pedagogy (multisensorial load reduction strategies) that activates the nonverbal components of language (rhythm, intonation, movement, emotion, and aesthetics), which are first processed in the right hemisphere, as the foundation of grammatical processing in the left hemisphere of the brain. This research, in fact, has generated a surprising result where the experimental group has made a highly significant learning improvement.

1.9 Frame of Thought

The frame elements of this research includes mapping literacy level of students, learning based on literacy level, learning happened with acceleration level, amplifying multisensory learning aspect, increase English proficiency index, and differentiated learning (based on literacy level and student needed). To clarify how each element relates to the others, see the research conceptual framework below.

Figure 1.2 Frame of Thought

1.10 Research Method

The research methodology is divided into several steps, those are: research 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 study employs a qualitative methodology. The employed Research and development technique (R & D). The research and development method (R & D) is an industry-based development model in which research findings are applied to the design of new products and procedures, which are then systematically field-tested, evaluated, and refined until they meet specified criteria for efficacy, quality, or similar standards (Gall, & Borg, Gall, 2003, p. 569). According to the type of research being conducted, namely the creation of digital literacy resources designed to excite students about literacy activities, researchers employ the research and development methodology.

The Gall and Borg model included ten major steps. There were the subsequent: Step one involved research and data collection or a needs assessment. It included a literature review, classroom observations, and the preparation of a state of the art report. Steps 2 and 3 involved preliminary product planning and

development. The planning process included defining skills, outlining objectives, determining the course sequence, and conducting small-scale feasibility tests. Creating a product's preliminary form entails the creation of instructional materials, handbooks, and evaluating devices. The fourth step consisted of preliminary field testing. It included interview, questionnaire, and school data collection and analysis. For step 5, conduct main product revision and product revision based on results of preliminary field tests. Step 6's primary field tests Evaluation of the primary product revision utilized quantitative data on the subject's progress. Step 7 involved the revision of the operational product in accordance with the results of the primary field test. Next, steps 8 and 9 involved implementation and distribution. It is a report on a product presented at conferences and published in journals. Work with a publisher who assumed responsibility for commercial distribution. Monitor distribution to provide quality control (Gall & Borg, Gall, 2003, pp. 570-571).

Depending on the duration of the research, the available research funds, and the researcher skills, this research design and development may involve sequential projects. (The Institute of Education Science, United States Department of Education, and the National Science Foundation, 2013, page 9) Only three stages were selected based on the project's time allotment, which was determined by the researcher's requirements. That was adapted from (Gall & Borg, Gall 2003) and Gall (2003). (Hamid, 2010, p.58-63).

Figure 1.3 Digital Literacy Resources (Research and Development Stages) adapted from Gall & Borg, Gall 2003 and Setiawan, Chandra A. 2014
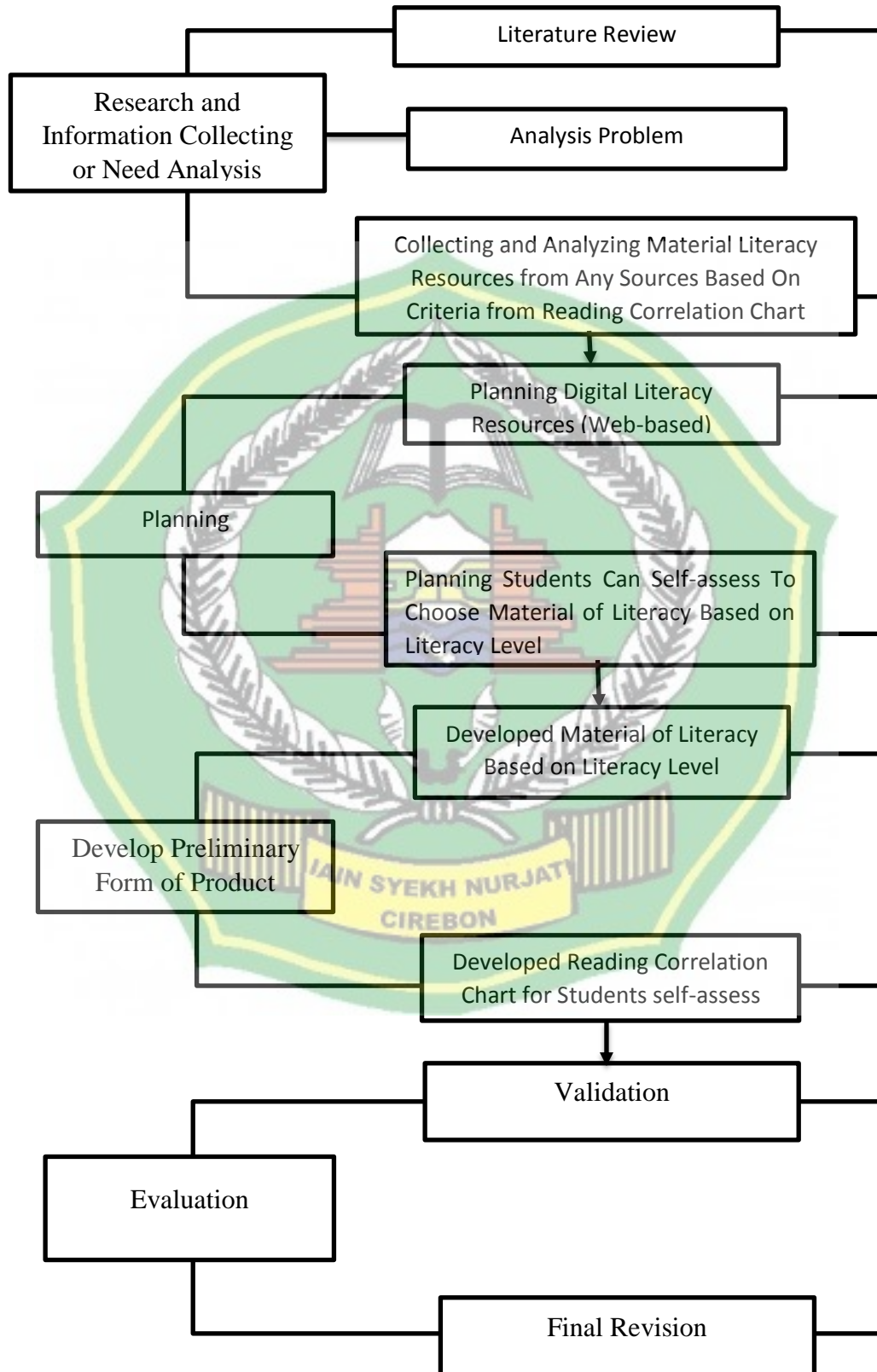
1. Research and Information Collecting or Need Analysis

The researcher adds a reading correlation chart to control the learning process in Digital Literacy Resources. This tool is made by adopting the ACARA Curriculum (Australia Curriculum), the content contains the relationship between student levels, learning materials, and test evaluations).

Table 1.4 Reading Correlation Chart

Colour Band	Level School	Literacy level	Reading Age	E-book	Video	Listening	Evaluation Test
Magenta	Junior High School	A1	13-15	•	•	•	A1-A2
				•	•	•	
				•	•	•	
				•	•	•	
				•	•	•	
Red		A2		•	•	•	A2-B1
				•	•	•	
				•	•	•	
				•	•	•	
				•	•	•	
Yellow		B1		•	•	•	B1-B2
				•	•	•	
				•	•	•	
				•	•	•	
				•	•	•	
				•	•	•	
Blue		B2		•	•	•	B2-C1
				•	•	•	

				•	•	•	
				•	•	•	
				•	•	•	
				•	•	•	
Green		C1		•	•	•	C1
				•	•	•	
				•	•	•	
				•	•	•	
				•	•	•	
				•	•	•	

2. Planning

In this stages of Research and Development, researcher have an analysis of diagnostic test has compatible with CEFR Framework. The analysis is as follows:

Table 1.5 the analysis of Diagnostic Test from English Club

Items	Description
Access	Free and easy to use
Test	Organized because there are 15 minutes to do the test and The test results come out right away.
Questions	Easy to understand, contains 20 multiple choice questions, and the type of text is playing logic: looking for hidden facts from a sentence.
Assessment Framework	Adopt the European Common Reference Framework for Languages (CEFR). CEFR is a standard, international scale of language

		proficiency levels. There are six levels: Pre-elementary, Elementary, Low-intermediate, Intermediate, and Low-advanced.

Table 1.5 displays the analysis of the diagnostic test has the fourth items that cover this test. First, point access here is free access and easy to use for any user, because this link test is available on Google. Second, the test is carried out within 15 minutes and the results of the test immediately come out after the test is completed. Third, the type of test here contains 20 multiple choices to choose the right sentences related to the question. The last one, the assessment framework in this test adopt from the Common European Framework of References for Language (CEFR). Despite using the diagnostic test by adopting the CEFR, students could follow this test.

3. Develop Preliminary Form of Product

In this section the researcher has some analysis text using Reading for Emotion approach. Reading for Emotion has six stages, as follows:

Table 1.6 Stages in Reading for Emotion

No	Stages	Meaning
1.	Focus	The part that attracts the reader because it is at the beginning of the story.
2.	Disturbance	The part that makes the reader curious because of the emergence of problems in the story.
3.	Dialogue	The part that starts to make the storyline because of the conversation between the characters in the story.
4.	Development	The part that makes the reader think because they

		are looking for solutions to the problems that exist in this story.
5.	Resolution	The part that makes the reader feel relieved because a solution to the problem in this story has been found.
6.	Moral	The part that makes the reader feel lucky to get a valuable lesson that we can learn from the story.

The following is an example of using Reading for Emotions (an example text A.-B Lian, 2020; 2017) as follow:

Table 1.7 Example of analysis of Reading for Emotion Approach

Stages	Text	Self-Reflective Question	Emotions
Focus	In a field one summer's day a Grasshopper was hopping about, chirping and singing to its heart's content	• What is your feeling after reading this focus section? • What makes the grasshopper sing happily like that?	Happy
Disturbance	An Ant passed by, bearing along with great toil an ear of corn he was taking to the nest.	• What is your feeling after reading this disturbance section? • Why do ants take the trouble to carry a grain of corn to	Feeling Respect

		• their nest?	
		• Are the ants on a secret mission?	
Dialogue	"Why not come and chat with me," said the Grasshopper, "instead of toiling and moiling in that way? " "I am helping to lay up food for the winter," said the Ant, "and recommend you to do the same." "Why bother about winter?" said the Grasshopper; "we have got plenty of food at present."	• What is your feeling after reading this dialogue section? • Why do grasshoppers feel they don't need to gather food? • Why didn't the grasshopper follow the ant's advice?	Feeling Disrespect
Development	But the Ant went on its way and continued its toil.	• What is your feeling after reading this development section? • What keeps the ant on its mission?	Awestruck
Resolution	When the winter came the Grasshopper had no food and found itself dying of hunger, while it saw	• What is your feeling after reading this resolution section?	Compassion

	the ants distributing every day corn and grain from the stores they had collected in the summer	• Does the ant regret listening to the previous ant's advice? • What if the grasshoppers starve to death because they have no food reserves?	
Moral	Then the Grasshopper knew: It is best to prepare for the days of necessity.	• How do you feel about endings like this? • What made the grasshopper realize the importance of preparation?	Blessing

Table 1.6 shows that the above fable has different characters the two characters. Where the grasshopper is cheerful and doesn't care about preparation VS the ants who are appreciative and persistent in preparation. Students explore how these contrasts are integrated to mark shifts in emotion in the story so that the story develops coherently. Again, the advantage of this method is that neither the teacher nor the students have to get the analysis correct. The assessment of this method uses self-reflective questions as the main foundation for understanding the text.

4. Evaluation

In this evaluation stage, the researcher received input from teachers who had tried to use these digital literacy resources. For suggestions, the researcher has completed the input and the teacher accepts it.

1.10.2 Source and Type of Data

    a.   **Source of Data**

Data for this study were obtained from both primary and secondary sources. The primary data collected through interviews, and the secondary data collected through documentation.

    b.   **Type of Data**

The type of data that will be described in this research and development will be qualitative data. Qualitative data was choose because the researcher wanted explain the feasibility of the developed media. As according to (Dabbs in Berg in Salim & Syahrumm, 2012, p. 28) that the qualitative approach indicates that the meaning of quality is essential to the nature of an object.

1.10.3 Data collection techniques and instruments

This research uses Documentation and Interview as its methods. In this study, the researcher employed two data collection methods, which will be described below.

    a.   **Documentation**

The researcher chose documentation as a technique to collect data because documentation can record and can combining collection of the data. According to Ary (2010), documentation encompasses a variety of written, physical, and visual materials, including what other authors may refer to as artifacts. The researcher uses written documents or other artifacts to comprehend the phenomenon under investigation. As an instrument for data collection, researchers collect documentation from observation, interviews, field notes, and institution files. According to Arikunto (2006), documentation is the process of locating information about things or variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, etc. In this study, the researcher is aware of writing-related teaching and learning activities. The researcher will process the data by combining multiple observations, interviews, field notes, and institution files. The complete data collection instrument will be described in the appendix.

b.   Interview

The interview was chosen as the data collection method because the researcher needed to communicate directly with the teacher and students who were the subject of this study in order to collect concrete data. According to Nazir (2005), an interview is the process of gathering information for research purposes through question-and-answer sessions conducted face-to-face between the questioner or interviewer and the respondent or subject using a tool known as an interview guide. Interview is the process of gathering information for research objectives through face-to-face interviews with respondents using interview guides. This technique is used to determine how teachers feel about digital literacy resources.

In this research, the author will conduct face-to-face interviews with students in order to collect the necessary information. The interview will focus on how students' interest in writing influences the interactivity of the lesson plans. The complete data collection instrument will be described in the appendix.

1.10.4 Data analysis technique (s)

This study's data analysis methods include a Critical Literature Review and Interviews. In this study, the researcher employed two analysis methods, which will be described below:

a.   The Steps of Data Documentation Analysis

The purpose of this documentation is to record an event that occurred and to locate information about objects or variables in the form of notes. Documentation may be composed of text, image, or a person's monument. Documentation is a record of previous occurrences (Sugiyono, 2010, p. 329). In this study, the author will collect data in the form of notes regarding interactive lesson plans in eighth-grade Islamic junior high classrooms. And finally, the researcher performs data processing.

b.   The Steps of Data Interview Analysis

The purpose of this interview is to collect information required for research. The researcher poses a number of questions. Then, researchers conduct face-to-face or in-person interviews with English teachers and students to exchange information and ideas through question and answer sessions. By conducting face-to-face interviews, it is possible to directly construct meaning in a specific topic, and researchers will learn more about participants in interpreting situations and phenomena that are impossible to discover through observation (Sugiyono, 2009). In this step, the researcher triangulates data through thematic analysis, word cloud analysis, and analysis of reflective questions.

1.10.5 Research Timeline

Here, the researcher divides the times to ensure timely completion of this research:

Table 1.8 Research Timeline

No	Activities	Time Allocations				
		January	February	March	April	May-June
1.	Applying Proposal					
2.	Proposal Seminar					
4.	Conducting Research					
5.	Collecting Data					
6.	Analyzing Data					
7.	Finishing Thesis Writing					