CHAPTER I

INTRODUCTION

1.1 Background of the Research

The 21st-Century marked a new era of reform for all walks of Indonesian life, Including education. This new era is one of openness and transparency, where almost all social ills and injustices are subject to public discussion (Alwasilah, 2014). In a webinar held by The Jakarta Post in August 2020, Nadiem Makarim, as Minister of Education and Culture, spoke about the future of the education system in Indonesia. Nadiem Makarim believes that education plays an essential role in building superior human resources. The Minister has a mission to make the next generation relevant to the real world and have competitive life skills. To realize this new generation, the Indonesian government and the Ministry of Education and Culture must work together to improve the education system in Indonesia.

However, fixing the current education system in Indonesia is a huge and challenging task (Alwasilah, 2014). Some of the most visible challenges are crowded classrooms, teacher quality disparities, and social, economic, and geographical disparities across the archipelago (Alwasilah & Puncochar, 2016, p. 2 cited in Sudimantara, 2021). In order to fix the educational system, the Ministry of Education and Culture made a significant transformation movement through three strategies. Firstly, ensuring that the next generation of leaders (teachers) came from professional training programs; secondly, creating *guru penggerak* and *Sekolah penggerak* programs; thirdly, suitably redesigning the curriculum at the competency level and student interests.

In response to this transformation strategy, Nadiem Makariem began launching the *Merdeka* Curriculum and the *Merdeka Mengajar* platform on the KEMENDIKBUD RI YouTube channel on 11 February 2022. Through

the *Merdeka* curriculum and the *Merdeka Mengajar* platform, Nadiem Makarim invites a new generation (of teachers) to make significant changes in overcoming the learning crisis experienced by the Indonesian nation over the last 20 years. National and international studies (TIMSS, PIRLS, EPI), including PISA, show that many Indonesian students cannot understand simple reading or apply basic mathematical concepts. Even the PISA scores have not experienced a significant increase in the last 10 to 15 years below the minimum reading and math competencies. After the pandemic, this learning crisis is getting worse. The Ministry of Education and Culture shows the research results; for literacy, learning loss is equivalent to six months of study. For numbering, learning loss is equal to five months of learning. To reduce the impact of this learning loss, the Ministry of Education and Culture recommends the restoration of learning in every school through the *Merdeka* curriculum and the *Merdeka Mengajar* platform.

However, to achieve the mission's success, the educational program must be reviewed critically for continuous improvement (Alwasilah, 2014). It must also be accompanied by the support of teachers and other education stakeholders. Because the recovery process in education today is indeed very challenging. So it is not only the government and the minister of education who has to take care of these problems but also all education stakeholders in schools. One of them who is closest to and knows students' characteristics at school is the teacher. Indonesia needs teachers who master the subject matter (pedagogy) and have the competence to instil the values and character of students to survive in an ever-changing society (Alwasilah, 2014). Therefore, today's teachers must be willing to challenge themselves to make changes in many ways. One of the most influential in students' success in learning is the learning process itself.

Teachers are supposed to be compatible in their way of teaching with the needs of students for a sustainable life. According to Alwasilah (2014), Teaching for the 21st century equips students with basic skills and values to

live in a knowledge-based society. The four principles of a knowledge-based society are, first, lifelong learning. Second, self-study. The third is problem-based learning. Fourth, learn from various sources. One thing that needs to be highlighted is self-study. Students need to learn independently because it can foster critical and creative thinking skills. Critical people tend to anticipate new problems and know how to solve them. That is why at this time, critical thinking skills are essential for students to have.

That human life is constantly flooded with new problems. So the curriculum must be redesigned to equip students with reasoning skills and problem-solving skills. The teacher's role is no longer about transferring knowledge but collaborating with students to create knowledge. In other words, students are treated as constructors of novice knowledge. Lian, A.B (2020) said that the learning process always occurs from the inside out, not the other way around. Because learning such as teacher-centred knowledge transfer is no longer relevant to the way humans learn. It turns out that most teachers often misunderstand these methods. In addition, students must learn from various sources. Because traditionally, the teacher was the primary and authoritative source of knowledge. Meanwhile, the main task of teachers today is not to impart knowledge but to help students filter the knowledge they encounter.

To respond to 21st-century critical thinking learning, it can also be said that problem-solving learning will never occur in the context of low-level learning as happened in the traditional approach (Schunk, 2012). In the context of learning English, the traditional approach can be mastering grammar and memorizing vocabulary (Sudimantara, 2021). In addition, according to Van Lier (2004), the ecological approach sees the learner as a whole person, not a grammatical production unit. Lian, A.B (2020) also emphasized that grammar is not the first thing processed by the human brain, but humans always process metaphors and stories first. Therefore, the

learning approach used in this study is based on critical literacy in the form of narrative text, aka non-grammar.

Meanwhile, according to Alwasilah (2014), one way to build critical thinking is through literature. Literature is a form of expression where through academic learning, students will be encouraged to create their poetry and fiction and share it with their peers and teachers. So this expressive learning will help students make their voices where it is undoubtedly beneficial for students to express their perspectives. In addition, according to Fletcher (2021), humans think in the form of a story. The structure of the human brain has something in common with stories. Namely, it has a plan and a plot (Fletcher, 2021). Therefore, stories cannot be separated from human life. Rutledge (2020) also mentions that stories have the potential to increase empathy and recovery. Therefore, learning based on narrative texts is very important because, after the Covid 19 pandemic, teachers must choose learning that does not burden students but has benefits. One of them is the selection of stories as a practical first step to help students think critically.

Through literature, students can explore their writing abilities. According to Peterson (2017), writing is one of the best ways to teach students to think critically. Becoming a better writer means becoming a better thinker and organizing thought processes coherently. Having an organized thought process means communicating messages or ideas to others efficiently. Writing is very relevant to help train the brain to think systematically. Javed et al (2013), quoted in Kellog (1994), define writing activity as a cognitive challenge where writing activity involves one's memory, language, and thinking skills.

Also Brown (2001) adds that writing is a thought process because writing is a process of pouring ideas into the paper where the writer converts thoughts into words and arranges these words into coherent writing. Writing addresses many of the same themes in reading activities, such as constructing meaning

and developing strategies (Kellogg, 1994). Problem-solving planning, revision, and metacognitive strategies are essential in improving students' writing skills. Meanwhile, to be a good writer is to read. According to Alwasilah (2014), the reading-writing approach is interconnected, that the extent to which an individual reads determines writing strength. Reading helps acquire knowledge, while writing allows the reader to put knowledge on paper.

However, to influence students' learning performance in critical thinking, whether it is studying literature, writing, or reading. Students must be emotionally engaged to do something (learn) Immordino-Yang & Damasio (2007). This means that humans always have a goal to do something, where the individual will choose something to do with the most relevant and reasonable in his view, where learning will only occur if students want a decision and agree to the action, where this is of course closely related to the feelings (heart) and thoughts (brain) of each.

This kind of learning is implied in an English learning tool called Reading for Emotion. The Reading for Emotion tool is a tool to analyze text and creating text using emotion regulation which is first introduced by Lian, A.B (2017). This tool gives an understanding to the individual that it turns out that the natural source of knowledge is in each individual. Because Reading for emotion is a self-reflection learning tool relevant to human emotions and cognition. This tool helps activate the human brain through exploratory-reflective learning when reading, analyzing, and writing (recreating) narrative texts, where it aims to build students' critical thinking.

Text narrative learning to build critical thinking is an innovative learning idea combined with a neuroscience approach. In this study, the researcher focuses more on developing story thinking-based teaching modules, where the learning principles are compatible with the way humans learn. The teaching module has also been validated by two experts and tested on four

respondents (teachers), with the result that the module is declared suitable for use at the junior high school level. Researchers also feel that all activities and learning processes in schools should be reformed in a better, more valuable and innovative direction. Even with this critical literacy-based learning module, the researcher hopes that later this module will become a reference and reference for teachers when teaching narrative texts in the classroom.

1.2 Identification of the Phenomenon

Following the background of this research, there has been a very severe learning loss in Indonesia over the years. This is evidenced by the EPI, PISA, TIMSS, and PIRLS surveys, which explain that Indonesia has experienced a significant decline in literacy. There is an identification of the phenomenon from the research results that researchers in two schools have carried out. Loss of learning does not occur because of a pandemic, but learning losses are exacerbated by the pandemic. Identification was also found that the teaching and learning process carried out in the two schools was still very outdated. The teacher is still the center of learning, which means that the ways of learning in the classroom are still by transferring knowledge. The respondents reasoned that it was challenging to carry out student-centered learning in the classroom.

In addition, the respondents also said that from the pandemic until after the pandemic, student motivation in learning decreased, and students were very passive when studying, especially when learning was done online. However, the researcher responded that this was not due to a loss of motivation; it could be that from the beginning of learning, the teacher did not provide fun and expressive learning. Then it is exacerbated by students who do not have a deep love of learning, both reading, and writing. Having the capacity to love learning is very important because motivation will only occur if students have emotional awareness and are willing to learn.

Knowledge is consistently built from the inside, not from the outside. In addition, in this case, the respondent seems confused about finding a way out of solving the problem. Because the respondents in the two schools agreed that the critical and intelligent levels of SMP/MTS students were deficient, it was challenging to make changes. Even though today's teachers should use pedagogy that can make students more expressive and better because it will be very relevant to the way humans learn. Namely use pedagogy that can strengthen the function of the human brain and body, where the approach seeks to maximize the work of the brain in processing all information starting from the right brain to the left brain. This approach is rarely used in class or is almost non-existent.

Therefore, the researcher tries to provide the right solution to improve English learning which is compatible with how the human brain processes information dan learns naturally. Because before and after the pandemic, respondents should have started to realize that their abilities needed to be upgraded, didactic teaching methods that are carried out in the classroom must be abandoned immediately, and teachers need a lot of reading and writing practice to think critically. The researcher then recommends to the respondents a teaching module that contains the concept of learning English based on story thinking.

Learning with story thinking can make students more expressive and think critically, according to (Marpurgo, 2022). The learning principles contained in the module are also compatible with the way humans learn (non-grammar). The module (written in two languages, English and Bahasa Indonesia) also supports learning; Critical Thinking learning, Inquiry-based learning, Problem-based learning, Explorative and Reflective learning, Discovery learning, Neuroscience of learning, Multisensory learning, and remote teaching. It is certain that the module is suitable to be used as a tool to help recover learning after the pandemic. It helps students to become better and exponential learners.

1.3 Delimitation and Focus of the Research

To avoid an expanded perspective in problem analysis, this research only focuses on applying narrative texts as a critical and reflective teaching and learning resource that can build critical thinking. In this study, the researcher had a reflective and critical experience in answering the research questions in numbers one and two while doing the module. Meanwhile, the researchers chose four respondents, namely English teachers from two kinds of schools SMP and MTS, for the 2021/2022 academic year as research subjects to answer research question number three. In this study, researchers focused on three things.

First, it focuses on how narrative texts can become a critical and reflective source of learning and teaching by observing the entire learning process of narrative text analysis using the Reading for Emotion tool that the researchers carried out through reflective and critical experiences when doing modules. The second research will focus on how a critical and reflective approach to narrative text can be reflected in the module. The researcher will give an honest statement about the strengths and weaknesses of the module made. Reveal critical aspects of learning to read and write using narrative text in the module. The third focuses on how teachers view their reflective and critical experiences when using Reading for Emotion to analyze and re-create texts.

To obtain data that answered the first and second research questions, the researcher recorded all the results of the analysis using Reading for Emotion and revealed all the critical aspects of the narrative text that the researcher had found during the research journey for approximately one month. The contents are the reflective and critical experiences of the researchers while doing the module. Meanwhile, to get data in answering the third research question, the researcher asked the respondents to read the entire module in three days, and during the next three days, the respondents were asked to work on the questions provided in the module. The respondents gave their

experiences while studying with the module through interviews. The answer materials and analysis data have been embedded in the data set in the appendix from the module (written in two languages, English and Bahasa Indonesia) to the thematic analysis of interviews with the respondents.

1.4 Research Questions

Based on the background and focus of the study, the researcher formulates the research questions as follows:

1) How can narrative texts be used as a source of critical and reflective teaching and learning?
2) How is critical approach to narrative text reflected in the module?
3) How do teachers view their critical and reflective experiences?

1.5 Aims of the Research

The aims of this research are focused on:

1) Describing how narrative texts can be used as a source of critical and reflective teaching and learning.
2) Describing how a critical approach to the narrative text is reflected in the module.
3) Describing how teachers view their critical and reflective experiences.

1.6 Significances of the Research

This research is expected to give significant advantages both theoretically and practically.

1.6.1 Theoretically

Theoretically, the results of this study are expected to provide innovation in narrative text learning, where learning is carried out through emotion regulation so that it is no longer based on grammar. In addition, this research also seeks to help improve the quality and quantity of English language learning in Indonesia. The research results in the form of the development of these teaching modules can

be used by teachers and students to be a reference when they read and write narrative texts. The researcher also hopes that this module can be widely developed and used by teachers in welcoming the new 2022 teaching curriculum as a reference for teaching and learning critical literacy to improve critical skills and bilingual and multilingual literacy.

1.6.2 Practically

Practically for researchers, the results of this study are beneficial in providing new insights about critical literacy and providing insight into knowledge in creating exciting and effective neuroscience-based teaching and learning tools (modules). The researcher also felt immensely helped by the learning because the researcher could feel and distinguish good and bad texts. In addition, this research can also be used as a reference for further research. For students, critical and reflective learning based on narrative text is expected to provide convenience to stimulate their body and brain in critical thinking. It also helps students' cognitive, affective and psychomotor processes to develop through this reflective learning. For teachers, reflective teaching can be an innovative, creative, and helpful teaching method in the teaching and learning process and maximize the potential of English teachers in delivering narrative text material unusually and innovatively. The teaching module is also beneficial for teachers to help students build critical thinking through their own experiences.

1.7 Theoretical Foundation

This research consisted of some theories usage. This subtopic elaborated the literature review related to the topic of the research. It provided information about The Characteristics of 21st Century Teaching and Learning, Narrative Text as the Foundation of Critical Literacy.

1.7.1 The Characteristics of 21st Century Teaching and Learning

Human civilization on earth has entered the first quarter of the 21st century, which began in 2000-2001—the emergence of various kinds of technology and sophistication as a feature of civilization. However, not only has technology become the first milestone in the development of this century, but various types of knowledge are also developing rapidly, one of which is neuroscience. Its emergence, known as DOB (Decade of the Brain), was inaugurated in the United States from 1990 to 1999 (Tandon, 2000). Neuroscience has not been heard of at all in Indonesia. The first civilization of the 21st century in Indonesia started with various kinds of prolonged conflicts, which affected the education system in Indonesia, which was constantly declining.

One of the most striking findings of neuroscience is that the quality of how humans learn is a biological mechanism that determines human survival (Cron, 2012). Neuroscience has provided clues about how humans should think, behave, and make life decisions (Jääskeläinen et al., 2020). Neuroscience has also provided innovations and new insights about how teachers should teach and develop a curriculum that fits students' brain and body mechanisms. One of the approaches promoted by neuroscience is student-centered pedagogy. According to the latest research by Sudimantara (2021), physiologically, humans can construct their knowledge even without the help of a teacher. This is an unusual-sounding approach.

However, neuroscience has provided empirical evidence that humans naturally always make their patterns even when no one teaches them; this has been confirmed in the research of Sudimantara (2021). In addition, according to Lian (2020) cited in Seth (2017), the human brain always works from the inside out, not from the outside in, so it is natural for humans to always digest information according to what they want. Therefore, the learning pedagogy, which says that understanding

comes from the teacher's knowledge transferred to the student's head, is misguided and incompatible with the human way of learning.

Based on research by Sudimantara (2021), humans always have a perception of strategy (Peterson, 2018). It is called the "orientation reflex," where this reflex always directs human attention to an anomaly, that is, to something that is not yet understood. In other words, how to enable students to understand or perceive the problem and find a solution. Their perception of anomalies is a prerequisite for students to "notice" that they need to change something. Therefore, the transformative learning pedagogy that should be injected today is learning that can help students to take real action. In addition, according to Sudimantara (2021) cited in Lian (2018), research by Seth (2017, 2014) has demonstrated that humans do not comprehend "what is" but rather what things signify to them. As said, this occurs because humans do not process signals, but rather their success, i.e. their degree of effectiveness. This means that humans always discard signals that are meaningless to them.

In the research, Sudimantara (2021), cited in Lian (2018), which is similar to Peterson (2017), explains how humans learn. It is described that for learning to occur effectively, learning must involve the role of the right brain (right hemisphere) to trigger hypothesis building, pattern recognition, evaluation of those patterns, and finally, pattern formation and mastery. When these patterns are ready to be finalized, they are then transferred to the left hemisphere for reuse. The research echoed by Sudimantara (2021) cited in Peterson (2017) has similarities with Ramachandran's (1996) research, which states that the right brain is the gateway to all types of learning. So if learning only focuses on the role of the left brain, then nothing new will happen in daily human life.

Sudimantara (2021) states that Ramachandran's (1996)-style hypothesis is also similar to Peterson (2017) and Panksepp (1988), who describe that the fundamental aspect of learning is a pathway in the human brain called the "seeking circuit" or "the exploratory circuit". To supports the importance of a process in the human brain, namely hypothesis building and pattern generation. Sudimantara (2021), cited from Peterson (1999), said that:

> *The right and the left hemispheres have very different functions, each endowed with a facility to deal with the more familiar and the unfamiliar. While the right hemisphere governs humans' initial responses to the unknown, the left is more suited for actions undertaken while people know what they are doing (Peterson, 1999, p. 63). When a conflict or an unfamiliar context is detected, the initial response is to freeze, then to imagine what the context may involve, next the brain engages in an exploration of the context, differentiates information and then masters that "which worked" (Peterson, 2017).* ***[Freeze, imagine, then explore differentiate,*** *and* ***master:*** *this is the process of learning.] The interaction between the two hemisphere describes the process by which the brain transforms low resolution representations of the unfamiliar into high resolution representations enable a person to better discern and to build increasingly powerful interpretive schema: "the exploratory capacity of the brain "builds" the world of the familiar (of the known), from the world of the unfamiliar (the unknown)" (Peterson, 1999, p. 37).*

From this explanation, researchers can conclude that the brain does not work alone, but the brain works on the principle of circuits or pathways. The point is that every part of the brain helps or provides power and support. To collect every data obtained so that it can form a unified whole. It is like connecting a puzzle to create a unified

knowledge. If the circuit is not created, it will be like scattered data. Forming data into a circuit requires continuous stimulation through the mechanism of brain plasticity, namely the brain's ability to reorganize in the form of new interconnections in the nerves.

Therefore, good learning starts in the right brain and then in the left brain. That is the process; before reaching "mastery", there are four stages of the process that must pass first in the right brain, namely Freeze, imagine, then explore and differentiate. However, the current education system only focuses on the left brain learning process, namely "mastery". Meanwhile, to achieve this process, you must go through four stages, first in the right brain. This follows how the brain works in learning something; therefore, critical literacy learning is the best choice because it supports these patterning processes in the learning process. It is not a coincidence that it turns out that the human right hemisphere likes things in the form of stories.

1.7.2 Narrative Text as the Foundation of Critical Literacy

Stories (Narrative Text) have long been a means of learning about human life for centuries ago; the story allows humans to learn to survive (Fletcher, 2021). The story involves humans because the center of human cognition and communication is in the form of stories, where the plot in the story has similarities with the path of the human brain in thinking. Stories are one of the most potent ways to influence, teach, and inspire people. Stories make it compelling because stories can establish a connection between human ideas and other human beings through storytelling. Stories not only pleasure listeners and readers but also convey the culture, history, and values that unite people, which make them able to build familiarity and trust and allow humans to understand complex ideas in stories quickly; a good story has a positive effect on the human brain.

When humans listen to or read a good story, two changes occur in the human brain: the first is neurological, and the second is chemical. When humans hear a plain fact, two areas of the brain light up language processing and comprehension. But when humans listen to or read a story, neural activity in the brain is increased fivefold—using the motor and emotion cortex and the visual image processing centre, where humans immediately imagine sensations and emotional process reactions. By reading and hearing stories, more of the human brain will work, so humans will focus more on the story and are more likely to save it later (Quantified, 2018).

At a chemical level, when humans hear or read stories, the brain will release oxytocin, a bonding hormone that makes humans feel very concerned about the people involved. That's why humans sometimes treat their favourite fictional characters as real people, why personal sharing stories is the fastest way to bond with strangers, and why storytelling is the best weapon for learning. Not only will you hear about someone's experience, but you will also live it with them. The more experiences the reader shares, the more oxytocin is released, and the more likely the reader will internalize the story and think about it later (Quantified, 2018).

According to Bauer (2021), only by telling stories humans can instil ideas, thoughts, and emotions into the listener's brain. When humans hear or read a story, they increase activity in the insula, the emotional brain region and the frontal cortex. Uri Hasson also added that reading or listening to stories activates many brain areas and can lead to shared contextual situation models (Widrich, 2012). The motor and sensory cortex, as well as the frontal cortex, will all be involved during story creation and processing. According to (Peterson, 2017), a story is the only way to activate the parts of the brain so that listeners turn the story into their ideas and experiences.

If ask about life in the fast-paced information age, where information, concepts, and ideas continue and will continue to provide input to humans from all directions. Is learning to use stories still significant for humans. It turns out that the answer is essential. According to Morin (1999), understanding cannot be digitalized. The lesson that should be done today is learning that can make people understand. Therefore, learning through stories is essential to do, not only for its benefits for human mental health but also can trigger humans to be able to understand things better, and it turns out that stories can help humans solve problems. However, a learning tool is needed so students can engage in critical learning to solve problems through stories.

To carry out critical learning through stories, in this study, individuals will be asked to ask a lot of "how and why" themselves, meaning they will be asked to learn reflectively. Be it when reading, writing, reviewing, analyzing or synthesizing. In learning to use a Reading for Emotion tool, students will use three learning principles, namely 3C: comparing, contrasting, and contesting (A.-B Lian, 2017). The use of a tool called Reading for Emotion is also an innovation in teaching and learning to leave the old teacher-centred pedagogy and memorize grammar and vocabulary. The learning carried out the will, of course, refers to each individual's experience, where the experience is different from one another. Likewise, the primary purpose of this research is to use a tool called Reading for emotion which is used to help students think critically with different levels of English with their respective abilities.

Critical learning through this Reading for Emotion tool, individuals will feel an inquiry experience based on neuroscience learning that can be easily understood. Even this learning tool will help individuals achieve satisfactory learning outcomes without memorizing. The

principle of learning using this tool is to analyze and recreate narrative texts using emotions. According to Sudimantara (2021):

> *According to Damasio and Immordino-Yang (2007), and Immordino-Yang (2009) 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). Lian (2017, p. 6) 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 says that the principle of Reading for Emotions learning is no longer oriented learning of vocabulary or grammar that needs to be understood, but the emotional meaning of the structure, how emotions are converted into text to evoke the desired effect on the interlocutor. Lian (2021) suggested that attention to emotion allows students to engage with texts from the perspective of their personal experiences. By analyzing the text to compare and contrast what they see in the text and why from an emotional perspective.

According to Caldwell & White (2019), the structure of the narrative text is divided into three sequences: orientation-complication-resolution. However, in learning using this Reading for Emotion tool). The dynamics of the text are captured by using the canonical structure of the text, which consists of six (6) stages: Focus, Disturbance (problem), Dialogue, Development, Resolution and Moral.

Figure 1.1 The canonical structure proposed by Ania Lian (2017): Focus, Disturbance, Dialogue, Development, Resolution, and Moral.

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

1. Focus, in the Reading for Emotion model concerns itself with the key point of focus of the text. In a canonical text structure, Focus will appear first, but not necessarily.
2. Disturbance stage introduces "complication", an event that created a shift in emotions. It does not have to be negative; it can be a surprise.
3. Dialogue is a part where perspectives are provided on the Disturbance.
4. Development stage talks about what happened because of the Disturbance.
5. Resolution refers to how the problem was resolved.

6. Moral is a take-home message that addresses the contrast between the Focus and the Disturbance.

In the early stages of learning, students will be asked to analyze and determine the sequence in the text they read. One text with other texts sometimes differs in the form of the sequence arrangement. For example, in the story text *"Sangkuriang"*, the sequence of the text is more complicated than in the story text *"Dull Monkey Who Wanted to be a King"* In the story text *"Sangkuriang"*, there are nine sequences. In comparison, in the story text *"Dull Monkey Who Wanted to be a King"*, there are only six sequences (examples of the analysis text are in module). This can happen because the story text *"Sangkuriang"* tells a mythical story with many disturbances (problems). In contrast, in the story text *"Dull Monkey Who Wanted to be a King"*, the text is more straightforward, and the sequence is regular. This can happen because every writer must have his own experience, and maybe there is a message the author wants to convey to make the story in such a way. Moreover, stories related to myths, legends and others are usually more complex than fable texts.

Narrative texts are used as a source of learning in this research. It has been explained earlier that the right brain likes stories. This follows the principle of this module, where effective learning is learning that starts from the right brain first and then is stored in the left brain. In addition, Fletcher (2021) says:

> *One of the great breakthroughs of modern neuroscience is to realize that our brains are primarily narrative.*

The reason stories are so powerful is because they connect to the brain's central action and can move us. This means that stories are great for communicating and influence how we think and plan. In an

interview on Jordan B Peterson's YouTube channel, Angus Fletcher said:

> *Literature can actually be therapeutic with trauma-multiple types of trauma. It can spark creativity, reduce stress and anxiety, can promote personal growth, and there is neuroscience to back all these things. That was the thing most surprising.*

Some studies also say that science supports the power of literature. They mention that reading poetry and books makes readers feel less lonely and can relieve anxiety. This is undoubtedly very beneficial for the mental health of students. For this reason, story thinking research is used to support critical learning. Of course, it is also helpful in strengthening the inner faculties of students. Reading for Emotion tools can bring new nuances to 21st-century English learning, where it turns out that neuroscience-oriented critical literacy learning can help students in critical thinking. The strengthening of the executive function marks this, and another reason is that it turns out that the human brain likes something in the form which is holistic; it is found in the narrative text, which has a complete sequence of six.

1.8 Previous Research

In recent years, issues concerning learner-centered learning based on a brain-compatible approach and critical literacy have garnered much attention in this study. There have been many studies on the success of interdisciplinary pedagogy for the needs in the teaching-learning process that is no longer based on remembering grammar and vocabulary to master English and learn English. This study will present several previous studies that have carried out research with the same theme to support the current research and prevent duplication of the same research. This research will focus more on the use of narrative texts (story) as a pedagogical aspect in critical learning by writing and reading.

Several researchers have conducted learner-centered learning based on a brain-compatible approach and critical literacy. The clusters are; Learners' Agency In Focus: Introducing The 21st Century Academic Writing Pedagogy In Indonesia (Sudimantara, 2021); Teaching academic writing in undergraduate English teacher education programs in Indonesia (Sudimantara, 2021); Designing 21st Century Language Learning Scenario in Indonesia: A Perspective from computer-assisted language learning (Bumela, 2020); Team Teaching with Overseas Partners in the Days of the "New Normal": A Better Way to Introduce Innovation and Build Local Expertise (A.-B Lian, 2021); Reading for emotion with ICT tools (A.-B Lian, 2017); (Forthcoming) Improving the Englishspeaking skills of Chinese primary EFL learners with a verbotonal approach (Yang, Wannaruk, & A.-P Lian, 2017).

Sudimantara (2021) conducted research entitled "Learners' Agency In Focus: Introducing The 21st Century Academic Writing Pedagogy In Indonesia." The research focuses on the idea of transformative learning. The study said that teacher-centered pedagogy should be abandoned immediately, and the move to student-centered pedagogy is a prerequisite for triggering learning transformation. The research reveals how learning academic writing units are approached differently using multisensory-metacognitive pedagogy as informed by neuroscience, thus breaking away from linguistics as the only information theory for language learning. The new academic writing pedagogy embraces language learning as a complex system, incorporating other bio-psychological components such as rhythm, intonation, movement, emotion, and aesthetics. The research has highlighted how brain-compatible pedagogical components can be used creatively in three innovative learning tools – Verbotonal Approaches, Reading for Emotions, and Aesthetics – to support the practice of agentive learning in academic writing courses. The new pedagogy was developed in a doctoral research project at an Australian university and has proven effective in helping students change their learning practices.

Another research conducted by Sudimantara (2021), entitled "Transformative learning and student agency in academic writing in undergraduate English Language Teacher Education degree programs in Indonesia." The study analyzes the academic writing approach used in Indonesia to demonstrate the need for innovative models that explicitly address the transformative goals of education. A quasi-experimental study was designed in the study to compare the effects of a multi-sensory learning model, which was developed for students to approach writing using a variety of sensory modalities, with a genre-established approach that utilizes Halliday's Systemic Functional Grammar to teach academic writing. The research was conducted at a university in Indonesia. From the quantitative and qualitative data that have been collected, it is shown that the multi-sensory model used with the experimental group resulted in a more significant improvement in academic writing performance using the multi-sensory model. There was a large amount of progress in the experimental group's performance, while the control group using Halliday's Systemic Functional method obtained a score lower than or equal to that obtained in the pretest.

The following research focuses on how writing learning should be carried out to meet 21st-century learning standards by bumela (2020), the research entitled "Designing 21st Century Language Learning Scenario in Indonesia: A Perspective from computer-assisted language learning". The latest research says that curriculum updates and syllabus development projects are an integral part of a quality assurance system that focuses on transparency and accountability in curriculum design and delivery. Critical elements of a course syllabus that are made transparent and accountable, for example, guide on shifting knowledge structures, the use of new technologies, an emphasis on developing student skills, and the expanded responsibility placed on students for their learning development. The study reports how these key elements are incorporated into the learner-centered pedagogy of academic

writing in ELTE departments in Indonesia to meet the 21st-century learning requirements that are individual, personal, adaptive, modular, integrated, and non-sequential. The establishment of a computer-aided language learning environment combined with a new pedagogy of academic writing, in essence, contradicts existing traditional approaches to language learning and literacy pedagogy in Indonesia.

The following previous research by A.-B Lian (2020), the research entitled "Team Teaching with Overseas Partners in the Days of the "New Normal": A Better Way to Introduce Innovation and Build Local Expertise." The study reports on three research projects that seek to address barriers to education inequality in Southeast Asia. The paper describes the context of successful interdisciplinary learning use projects, where technology can support student learning and includes suggestions for improvement through learning (Reading for Emotion, Verbotonal and Aesthetic learning).

The following previous research by A.-B Lian (2021) entitled "Reading for Emotion with ICT Tools,." The research argues that transformative learning should begin with and revolve around a student examining their way of relating to the world; This is in stark contrast to the apprenticeship model popularized in the 19th century, which begins with a specific task or exercise and trains students in their performance. The conceptual paper describes a reading tool specifically designed to support first and second language students in developing the literacy skills involved in producing compelling and critically examined texts of all kinds, including public presentations or even poetry. The paper demonstrates the relevance of these tools for transformative pedagogy, compares them with other literacy supports commonly available in schools, and describes how these tools can be integrated into learning contexts. The emphasis on emotion draws on evidence from neuroscience, where understanding and learning are increasingly presented as emotional processes. Therefore, traditional thinking about texts as a product of cognitive processes alone requires a rethink to

consider emotions as a source of intention that informs the process of text construction and interpretation. Therefore, it is not the vocabulary students struggle to understand or manipulate but how emotions are converted into text to evoke the desired effect on the interlocutor. Furthermore, explicit attention to emotion enables students to approach literacy and language learning as whole persons, broadening students' emotional understanding of themselves and how they perceive others.

The following previous research by Yang, Wannaruk, & A.-P Lian (2017), the research entitled "(Forthcoming) Improving the Englishspeaking skills of Chinese primary EFL learners with a verbotonal approach." This research uses a verbotonal (non-grammar) approach, which is effective in learning foreign languages. However, it is never used to teach speaking skills to elementary school students in the Chinese context and is usually used to teach pronunciation rather than speaking. To bridge the gap, the study designed a verbotonal-based approach to improve the speaking skills of EFL essential Chinese learners. Eighty grade 3 students from rural elementary schools in China participated in this study. The experimental group did the intervention while the control group followed the traditional way of learning to speak English. Through different tests, the experimental group improved significantly in both overall speaking skills and individual tests: word reading, sentence reading, singing and oral interviewing, and five sub-skills: vocabulary, grammar, pronunciation, fluency and comprehension. In addition, the experimental group outperformed the control group in all aspects tested compared to the control group using the traditional approach. These findings indicate that the verbotonal (non-grammar) approach is beneficial for learning English speaking skills in the participating groups.

1.9 Frame of Thought

The framework of thinking represents the question of the research: 1) How can narrative texts be used as a source of critical and reflective teaching and learning? 2) How is the critical approach to narrative text reflected in the

module? 3) How do teachers view their critical and reflective experiences? To find out the answer to the first research question, the researcher analyzed the results of the researcher's learning experience using the Reading for Emotion tool as a material to analyze and recreate narrative texts. In addition, the researchers also analyzed the narrative text from the results that the teacher had done in the form of narrative text analysis and narrative text creation. The researcher will investigate several critical aspects of reading and writing by using Reading for Emotion to create learning modules to answer the second research question. To find out the answer to the third question, the researcher will reveal findings in the form of perspective from the teacher's experiences while learning to use the learning module. From the three research questions, the researcher tries to convey research based on the needs of learning English in today's era by creating a learning module compatible with 21st century English learning and how humans learn naturally (using emotions). The framework of this research is described in the figure below:

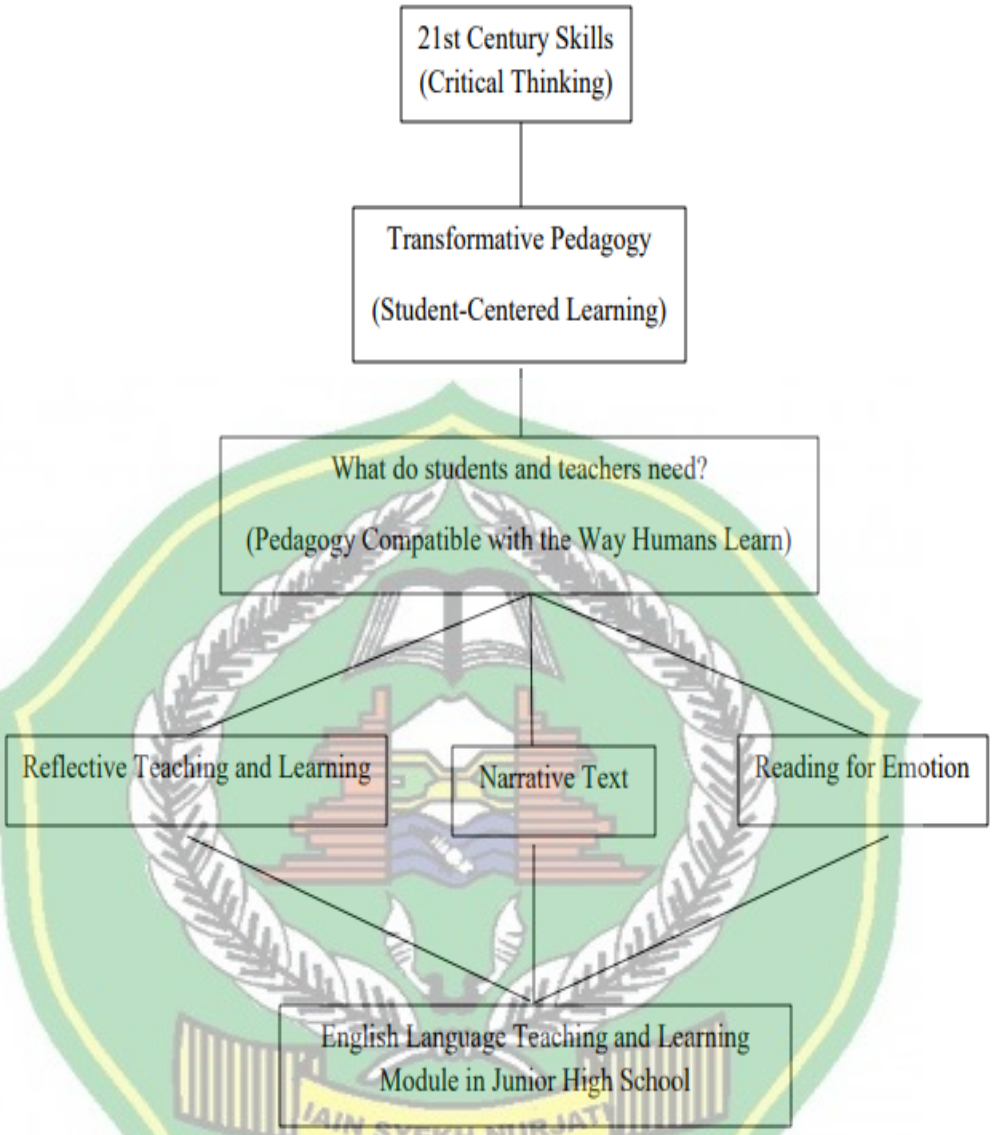


Figure 1.2 Frame of Thought

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 design used a research and development (R&D) methods adopted from Borg & Gall (1983). Research and

development are carried out to innovate, create, introduce new products, and verify the effectiveness of new products. In addition, according to Borg & Gall (1983), Research and development (R&D) methods are used by educational researchers to develop and validate their educational products. Meanwhile, according to Sugiono (2019), research and development (R&D) is a research method used to produce specific outcomes and test the effectiveness of these products. The research and development (R&D) design will be used in this study to develop learning modules based on the neuroscience of learning.

The development of this module based on neuroscience aims to introduce a new method compatible with the way humans learn. The learning principles in the developed module will focus on learning English which is no longer based on memorizing vocabulary and grammar. Therefore, the learning principles in this module will focus on learning critical literacy in the form of story thinking (narrative text). In addition, this module is an attempt to straighten out what 21st-century learning should be.

In his book, Borg & Gall (1983:775) proposes ten steps in conducting the R&D Method. However, this study will only carry out the R&D stages up to the steps in following order:

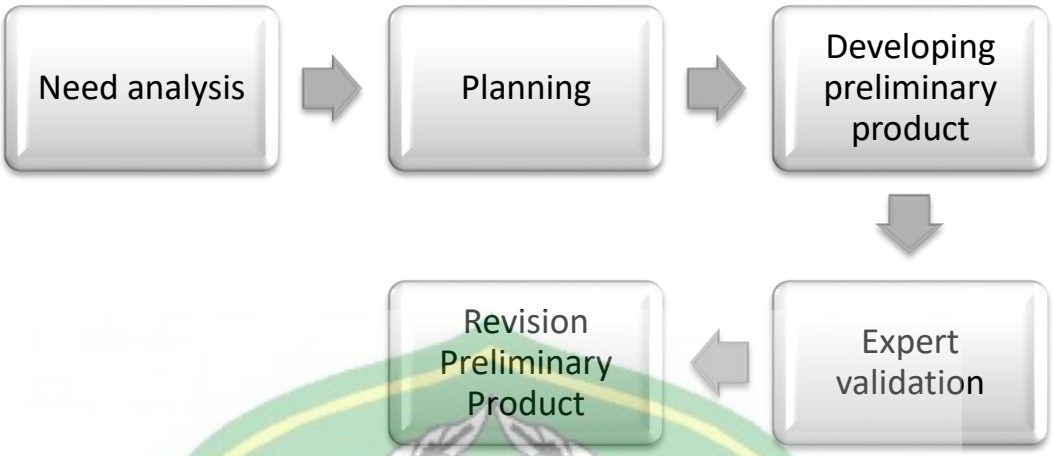


Figure 1.3 RnD adoption of Borg & Gall theory (1983:775)

1.10.1.1 Need analysis

Need analysis at this stage is done by studying literature based on reflections from the researcher's reading experience. From this reflective experience, the researcher found a new problem and potential in teaching and learning in the 21st century in Indonesia. First, the education problem facing Indonesia today is enormous; the Ministry of Education and Culture also stated that the learning crisis in Indonesia has been going on for a long time and has not improved from year to year. Second, national and international studies, one of which is PISA, show that many Indonesian students cannot understand simple reading or apply basic mathematical concepts, even worse after the pandemic yesterday. Therefore, researchers have the potential to help restore education, especially in learning English which is no longer based on grammar and vocabulary that does not burden students. The practical reason that researchers found after analyzing many empirical neuroscience findings is that the learning that is needed today is learning that

can make students better and learning that can activate various areas of the brain because if that happens, students will understand faster.

1.10.1.2 Planning

Based on the problems and potentials found, this research also tries to create a teaching module based on the neuroscience of learning (brain-compatible approach). Because at this stage, the researcher examines the material to be compiled in the module, the steps taken include: analyzing the learning material, analyzing the narrative texts of fables, legends and myths according to the junior high school level (A1-A2) and recreating the narrative text, determining the aspects of the narrative text. critical learning aspects using Reading for Emotion, analyzing the selection of rubrics, making reflective questions and making module titles and modules written in 2 languages (English and Indonesian)

1.10.1.3 Developing preliminary product

At this stage, the design phase of the explorative-reflective learning-based module device is carried out, which is divided into two steps, namely:

1. Collecting reference material on learning to think critically using narrative text sources based on a brain-compatible approach (explorative and reflective learning) and then making material mapping.
2. Designing a brain-compatible approach-based module device for English teaching materials.

   2.1 Selection of module format, the selection of the module format is adjusted to the model criteria format adapted from

research by Sudimantara (2021), which has been simplified for teaching and learning in junior high schools.

2.2 Initial Design of Module, at this stage, the module design and systematics are carried out which includes learning activities such as:

1) The title of the module describes the material to be included in a brain-compatible approach-based module.
2) There is a short description (indicators and objectives) of learning using the Reading for Emotion learning tools.
3) There is relevance to 21st-century learning
4) There are learning achievements
5) There are exercises (analyzing and re-creating narrative texts) using the reading for Emotion tool.
6) There is an assessment rubric
7) There are reflection questions
8) There is a digital Storybook Catalog (referenced stories that have sequence integrity and have been analyzed using Reading for Emotion)

1.10.1.4 Expert validation

At this stage the product resulting from the initial development is validated, including: 1) The validation stage is carried out by English material experts, learning media experts, and English learning practitioners; 2) Analysis I; 3) Phase I revision; 4) Product trials on teachers; 5) The validation stage is carried out by the English teacher. All data has been included in the appendix VIII, from data collection to data analysis. After a preliminary field test of the product to experts and teachers, the research data will be compiled and analyzed. The primary

purpose of product revision is to improve product development. Improvements to product revisions will be following suggestions, comments, or even items evaluated in the validation rubric from English material experts, learning media experts, and English learning lecturer).

1.10.1.5 Revision Preliminary Product

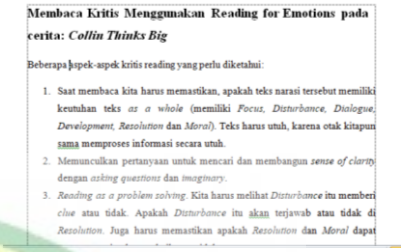
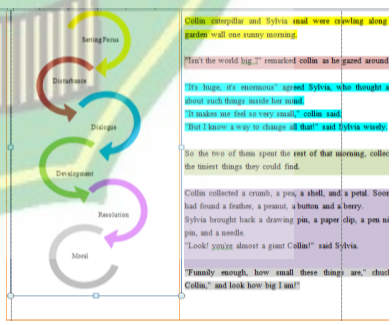
After passing the learning module development stage, the validity test stage was carried out by two validators consisting of (English material experts and learning media experts), the data obtained as table 1 below:

Validator	Score	Notes
Validator 1 (English material expert and learning media expert) English learning lecturer.	84.64 %	Quite Valid (can be used but needs minor revision)
Validator 2 (English material expert and learning media expert) English learning lecturer.	78.84%	Quite Valid (can be used but needs minor revision)
Average	81.74 %	Quite Valid (can be used but needs minor revision)

Table 1.5 Expert Validation

The table shows that the average result of the two validators' assessments is 81.74%. It can be concluded that the learning media developed is categorized as valid but needs to be slightly revised. The validator provides recommendations for revising some aspects of writing and color selection (Appendix VIII). Some of the results of the description of the results of the

revision of the learning media that have been developed are as follows:

Point Revised	Before Revision	After Revision
An example of an English word that I think can be written in Bahasa Indonesia: critical aspects = aspek-aspek kritis.		
Check the typo: EPI is English Proficiency Index, right? Not English Proficient Index?		
The sentences highlighted in red are quite unreadable for me, too dark, it will get darker when you print it out. You can choose different tone of red color for that.		

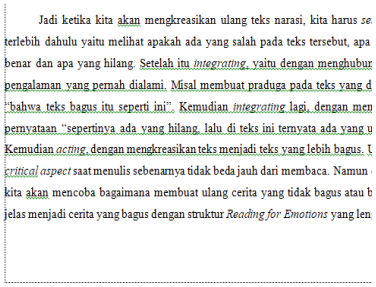
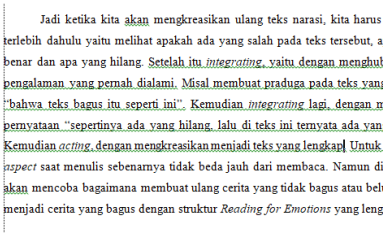
Avoid using adjective when judging the content for example: on page 28 it is mentioned “mengkreasikan teks menjadi teks yang lebih bagus”, I would recommend you to refer to the elements of RFE so you can reword them as “menjadi teks yang lengkap/ sesuai sekuens”, this is just an example, you can find more appropriate words for it.	 Jadi ketika kita akan mengkreasikan ulang teks narasi, kita harus se terlebih dahulu yaitu melihat apakah ada yang salah pada teks tersebut, apa benar dan apa yang hilang. Setelah itu *integrating*, yaitu dengan menghubur pengalaman yang pernah dialami. Misal membuat praduga pada teks yang d “bahwa teks bagus itu seperti ini”. Kemudian *integrating* lagi, dengan men pernyataan “sepertinya ada yang hilang, lalu di teks ini ternyata ada yang u Kemudian *acting*, dengan mengkreasikan teks menjadi teks yang lebih bagus, t *critical aspect* saat menulis sebenarnya tidak beda jauh dari membaca. Namun kita akan mencoba bagaimana membuat ulang cerita yang tidak bagus atau b jelas menjadi cerita yang bagus dengan struktur *Reading for Emotions* yang len	 Jadi ketika kita akan mengkreasikan ulang teks narasi, kita harus terlebih dahulu yaitu melihat apakah ada yang salah pada teks tersebut, a benar dan apa yang hilang. Setelah itu *integrating*, yaitu dengan menghul pengalaman yang pernah dialami. Misal membuat praduga pada teks yan “bahwa teks bagus itu seperti ini”. Kemudian *integrating* lagi, dengan n pernyataan “sepertinya ada yang hilang, lalu di teks ini ternyata ada yan Kemudian *acting*, dengan mengkreasikan menjadi teks yang lengkap. Untuk *aspect* saat menulis sebenarnya tidak beda jauh dari membaca. Namun di akan mencoba bagaimana membuat ulang cerita yang tidak bagus atau bel menjadi cerita yang bagus dengan struktur *Reading for Emotions* yang leng

Table 1.2 Revision of Product module

Some other revisions may be more leverage if carried out by possible future research.

1.10.2 Sources and Types of Data

This section discusses the data collection techniques and instruments used in this study. Researchers collected qualitative

descriptive data for this study. Qualitative data were obtained from interviews and validation questionnaires of education and media experts and their suggestions.

1.10.3 Data Collection Technique and Instrument

In this study, the researcher used an interview guide with closed-ended questions to the teacher to collect information about his views regarding the suitability of the learning module with learning that is usually done in class (Appendix V). Qualitative data comes from field trials obtained from the results after the teacher reviews (reading and working on the questions in the module). The validation sheet questionnaire was made by researchers for education and media experts so that researchers produce suggestions, input, and revisions that researchers must carry out. From their suggestions, feedback, or reviews, the researcher assesses the prototype's validity, design revisions, and weaknesses. Experts have provided comments and improvement points for the prototype. Before the researcher used the instrument to collect data, the instrument was consulted with the supervisor.

In addition, this research data was collected through several steps, which will be explained below:

1. Conceptualize the English learning module (based on Brain-compatible).
2. Develop learning materials based on the literature review.
3. Preparation of educational and media validation sheet questionnaires
4. Experts to check the validity of the module.
5. Revision of the main product of the learning module from the experts.
6. Arrange for a guided interview.

7. Conduct closed-ended interviews for junior high school teachers.
8. Transcribing the interviews and the results of the narrative text analysis of the teacher's results after completing the module.

1.10.4 Data Analysis Techniques

Researchers analyzed the data obtained from observations and trials of learning modules for teachers at the junior high school level (Appendix VIII). The data analysis procedure is described as follows:

1. Analyzing data from the first and second experts on validation sheet in the form of appropriate material and media.
2. Analyze the expert validation score with the formula below:

Notes: 1= Poor, 2 = Fair, 3 = Good, 4 = Excellent
Total of Score = 4 (scales) x 13 (items) = 52
Score Derived = score achieved/52 (total score) x 100% = %

NO.	Validity Criteria	Validity Level
1.	85.01 % - 100.00 %	Very Valid (can be used without Revision)
2.	70.01 % - 85.00 %	Quite Valid (can be used but needs minor revision)
3.	50.01 % - 70.00 %	Less Valid (it is recommended not to be used because of major revisions)
4.	01.00 % - 50.00 %	Invalid (it may not be used)

Table 1.3 Validity criteria

3. After using the learning module, identify and compile data based on teacher learning outcomes.
4. Compile answers from teacher interviews about their perspective on the module.

5. Triangulation of learning outcomes that the teacher has carried out through thematic analysis, word cloud analysis from the results of thematic analysis of interviews with the teacher.
6. Combine the results of the expert's assessment of validity and transcripts of teacher interviews.
7. Make conclusions from the data based on the data results that have been analyzed.

1.10.5 Research Timeline

Time allocated for the research is one meeting for instruments used by the researcher for collecting data. Both giving a questionnaire and interview are surveyed at different times since the interview needs a lot of time to be done personally. Thereby, it takes about two months to complete the data collection.

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

Table 1.4 Research Timeline