

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Research

One of the outside elements that significantly affects how well students learn is assessment. Assessment is the process of measuring, calculating, and evaluating the overall level of student knowledge. The many modes of assessment must be incorporated into the learning process (Hamid, 2011: 15). Student identification and knowledge of their learning challenges are the goals of the assessment. One of the tenets of assessment is comprehensive and continuous, thus teachers must employ a variety of acceptable assessment methods and cover all areas of competency to track how well their students are developing their skills.

Curriculum 2013 emphasis on the building of individual character which should be able to maintain and develop nation culture. As individuals, they should have knowledge, intellectual ability, behavior and habit, and social skills as the basics to increase quality as an individual, community member, citizen and human being. As seen in the result of Program for International Student Assessment (PISA), a study focusing on literacy, mathematics and sciences, Indonesia is in the worst 10 of 65 countries. The result study of Trends in International Mathematics and Science Study (TIMSS) showed that Indonesian students are in lower position dealing with ability on 1) comprehending complex information, 2) theory, analysis and problem solving, 3) equipment use, procedure and problem solving, 4) investigation. Curriculum, therefore, need to be revised related with the objectives of the curriculum. The curriculum should not burden the students with content but should emphasize on essential ability which is needed by all citizens to develop Indonesia for the future (curriculum 2013 docs).

Furthermore, neuroscience is confirming that education is a major tool for this brain-shaping process, and for improving the transfer of knowledge across groups and historical time (Howard-Jones, 2014) Neuroscience is also introducing new dimensions that have not been linked, either traditionally or explicitly, to classroom learning, such as emotion, and underlying environmental, genetic, evolutionary, and

biological variables; all these factors are potential constraints but also potential springboards for acquiring human learning and knowledge.

In addition, as explained by Lian (2018), following Peterson (2017), the implication of this description is that in order to acquire learning, activity, it is necessary to engage the right hemisphere of the brain to trigger the processes of hypothesis formation, pattern generation, evaluation of those patterns and, finally, key pattern formation and mastery. When ready, the "final" pattern is then "transferred" to the left hemisphere for use.

This requires modifying teachers' pedagogical perceptions about learning and teaching and developing their competence utilizing a recent trend in education that is brain-compatible instruction. Carew and Magsamen (2010) elucidate the need for formal professional development training to ensure that all teachers attained practical knowledge and strategies to implement brain-compatible teaching based on neuroscientific research. Therefore, the researcher conducted this research to provide validated information that supports the incorporation of brain-based concepts into professional development programs to provide novice English teachers with the knowledge, beliefs, and skills needed to construct a productive learning environment that keeps up with the changes and requirements of 21st century.

Nowadays, entering the 21st century, Indonesia has developed a new paradigm in the field of education, namely (1) Shifting the focus of the teaching process to a learning process, (2) Flexible curriculum, (3) Educational autonomy. Education that focuses more on the learning process than the teaching process is of course to improve the quality of students. Meanwhile, the autonomy of education and the flexibility of the training curriculum for each educational institution can adjust to the competence of achieving objectivity in the field.

Honestly, every student has the power of sensory learning which is commonly referred to as a learning style (Praveen, 2011). There are children who have visual, auditory, kinesthetic learning types or a combination. A learning method is not necessarily effective for all children because every child has their own way of

learning (Ross, 1984 in Sessiani, 2007). This study suggests that when students are taught using techniques or methods that are appropriate to their learning styles, they will learn more easily, quickly, and be able to retain and apply concepts more easily for future learning.

The advantage of this multisensory method is that it can involve individuals with various learning styles, for example some people with visual, auditory and kinesthetic learning styles. Treichler (in Shams & Seitz, 2008) states that people usually remember 10% of what they read, 20% of what they heard, 30% of what they saw and 50% of what they saw and heard. Multimodal processing can reduce cognitive load because information from different modalities can be more easily stored in short-term memory and used to construct long-term representations. This method is used in processes that are directly related to letter recognition and reading, because the multisensory method is the most effective when it is associated with reading material (Rahman & Dudy, 2008).

Several studies have shown the effectiveness of using multisensory methods in improving reading, writing, listening and speaking skills in various subject groups, including: kindergarten students (Sessiani, 2007), students with learning difficulties (Riggs, 2008), student groups African-American (Joshi et al, 2002).

Human beings, whether they do so consciously or not, “create rubrics – guidelines for decisions for evaluation and assessment – in their minds every day” (Quinlan, 2012, p. 2). The rubrics we keep in our minds help us make decisions based on the knowledge we have and our current goals. In education rubrics are often an integral part of a strong, objective and effective assessment tool, also because they are useful for formative (for learning) and summative (learning) assessments. The main purpose of the rubric is to support students in the learning process, which is made possible by guiding students' activities and also giving them a clearer understanding of their own learning process and progress. Rubric is an indicator of the achievement of learning objectives, so it is important for the alignment of learning outcomes with the assessment.

Based on the above mentioned, this research has title "DEVELOPING AN ASSESSMENT RUBRIC FOR MULTISENSORIAL TEACHING AND LEARNING IN JUNIOR HIGH SCHOOL". This research discusses the aspect of multisensorial modality and multisensorial perception for the beginner teaching English which is suitable for junior high school. The samples of this study were selected students at junior high school.

## **1.2 Identification of the Issue**

The problem in Indonesia is that assessment, curriculum, and pedagogy are like machines, as with the rubric, here the engine is there but it doesn't work as expected. The assessment components needed in the 21st century are to be interesting, creative, innovative, and useful. The benefits of assessment in the 21st century according to this study are to promote teaching, set a 21st century approach where it is no longer the teacher who is the focus but also the students. In addition, to understand the rubric of this research, it is necessary to hold on to psychometry and its basic principles. Psychometrics is the study of measuring human behavior (Shultz, Whitney, & Zickar, 2014, p. 374). The purpose of psychometry: to determine the quality of psychological measuring tools. As well as psychometric activities, namely analyzing responses to items from psychological measuring instruments.

Based on table 7, junior high school students can only have four hours of English lessons a week, while for other subjects such as Indonesian, Mathematics, and Science, they have six and five hours a week. In English, there are several language competencies that must be learned by students; reading, writing, listening, and speaking. The author argues that four hours a week to study English in junior high school is not enough for students to be able to understand and complete the four competencies. Moreover, the latest curriculum (2013) does not include English as the main subject for elementary school students. It is assumed that junior high school students only have English lessons starting at the Junior High School level. Students learn English formally at Junior High School level initially. They do not have basic English lessons that will be studied in depth at the junior high school

level. It will be a problem for Indonesian students that they know English in a very late situation.

The development of the English learning process in Indonesia is still not encouraging. This can be shown by the low English proficiency of Indonesians who are at a low proficiency level (ability) based on the English Proficiency Index. The following data shows that Indonesia is ranked 80<sup>th</sup> out of 112 countries and ranked 14<sup>th</sup> out of 24 on the Asian continent. This achievement is certainly the result of the learning process at school. One of the main actors in the learning process is the teacher. A study states that teachers are aware that the use of technology in the learning process is very helpful in achieving learning goals (Muslem, Yusuf, & Juliana, 2018). However, along with technological developments in the very fast industrial revolution 4.0 era, teacher knowledge about technological developments and the ability to implement technology in the English teaching and learning process is still low (Djiwandono, 2019; Drajati, Tan, Haryati, Rochsantiningsih, & Zainnuri, 2018; Muslem et al., 2018).

Another problem is TIMSS (Trends In International Mathematics and Science Study) assessment 2015 Indonesia score is 397 from Scale Center point 500) that's a low level. In addition, the score obtained in the PISA Assessment in the last 5 years continues to decline. Every year is at a low level. It continues to be a challenge for all of us. Continue to do research to be able to find a problem solving from this problem. Furthermore, the result of the PIRLS assessment in the 5 years Indonesia is still at a low level. The score obtained is still below the minimum number.

Students with beginner of multisensory may face bigger challenges in acquiring a foreign language. In a typical classroom situation, teaching and learning process tend to teach too many skills too quickly and superficially (Swaby, 1984). Similarly, Alek and Ni'mah (2016) suggested that students with young learners find difficulties in adapting themselves with the learning system applied. Therefore, it is important to make a careful consideration related to teaching and learning methods that will be applied for them (Paramadhyalan, 2009).

Meanwhile, rubrics are often used by teachers to grade student work but many authors argue that they can serve another, more important, role as well: When used by students as part of a formative assessment of their works in progress, rubrics can teach as well as evaluate (Arter and McTighe 2001; Stiggins 2001). Used as part of a student-centered approach to assessment, rubrics have the potential to help students understand the targets for their learning and the standards of quality for a particular assignment, as well as make dependable judgments about their own work that can inform revision and improvement.

### **1.3 Delimitation of the Research**

To limit the scope of the study, this research only focuses on aspect multisensory learning and assessment rubric for the young learner English which is suitable for junior high school. In this study, the researcher chooses some of the students in junior high school.

In this research, the researcher focuses on two points. Firstly, it focus on how the aspect of multisensoriality are reflected in the young learner will be developed assessment. Secondly, it focuses on how this new type of assessment rubric inform the teaching learning process.

### **1.4 Research Questions**

- 1) What aspects of multisensoriality are reflected in the development of the assessment rubric?
- 2) How does this new type of assessment inform the teaching learning process?
- 3) How do the experts validate the strength and weaknesses of the resulting assessment?

### **1.5 Aims of the Research**

- 1) to investigate the multisensory aspects reflected in the development assessment rubric.
- 2) to investigate out this new type of assessment inform the teaching and learning process.

- 3) to investigate the experts validate the strengths and weaknesses of the resulting assessment.

## **1.6 Significance of the Research**

Theoretically, the importance of this research is to increase references that can be used in conducting research, especially in education or language learning. It is hoped that this study will contribute to research on learning institutions by exploring relatively unstudied dimensions of the problem.

Practically, the benefits of this research are: teachers and students can try a new way, namely the multisensory method to find out what multisensory aspects students can do, and how to improve their assessment in teaching and learning practices in multisensory classrooms.

## **1.7 Theoretical Foundation**

This section is basically the theoretical foundation of this reasearch. The following paragraphs give the readers some insight into what the research is about by defining the main aspects mentioned in it.

### **1.7.1 Assessment**

In order to raise the standard of education, assessment is crucial to learning. The process of gathering information that can demonstrate a student's learning progress is known as assessment. Assessment is referred to by a number of words, including performance assessment, alternative assessment, and authentic assessment (Gloria, 2012).

According to Brown, assessment is a continuous process that gathers data on student learning. Additionally, according to Campbell, assessment entails gathering data, obtaining samples, and documenting observations of pupils' language acquisition or activity (Juhairiyah, 2017). Assessment is also described by the Ministry of National Education as the use of a variety of techniques and technologies to gather data on the abilities or learning outcomes of students (a series of abilities).

Nitko defines assessment as the process of gathering data utilized to make judgments on students, curriculum, educational programs, and policies (Nitko, 2012). With the provisions of Government Regulation Number 13 of 2015 concerning Education Standards, which contains eight national standards (content, process, competency of graduates, educators and workforce, facilities and infrastructure, management, financing, and

assessment standards), the government is continuing to work to improve students' abilities. Class assessment is impacted by the adoption of Government Regulation No. 13 of 2015 regarding educational standards.

Thus it can be concluded that assessment is a process for making decisions in accordance with the information obtained through measuring learning outcomes using test and non-test instruments. Assessment of student competence can be done through tests and non-tests. As stated by Arifin (2012), "in the measurement process, teachers must use measuring tools (test and non-test). Tests are often used to measure students' cognitive domains and the answers are absolute like written tests (paper and pencil test), such as multiple-choice, short answer, matching test, true false. That is, the questions that must be answered by students must be in accordance with the available answers. While the non-test is used to assess competence outside the cognitive realm and the answers are free and not absolute.

### **1.7.2 Literacy**

According to UNESCO "The United Nations Educational, Scientific and Cultural Organization", literacy is a set of real skills, especially skills in reading and writing that are independent of the context in which these skills are acquired and who acquires them.

According to Alberta, literacy is the ability to read and write, increase knowledge and skills, think critically in solving problems, and communicate effectively that can develop potential and participate in people's lives.

The National Institute for Literacy defines Literacy as "an individual's ability to read, write, speak, calculate and solve problems at the skill level required in work, family and society." This definition defines Literacy from a more contextual perspective. From this definition implies that the definition of Literacy depends on the skills needed in a particular environment.

### **1.7.3 21<sup>st</sup> Century English Teacher Pedagogy**

The pedagogical abilities offered by Brown (2001) are apparently still very relevant to the needs of English teachers in the 21<sup>st</sup> century. Brown revealed that language teachers are required to have 12 pedagogical abilities, while still prioritizing a balance between three other abilities, namely technical knowledge, interpersonal skills and personal qualities. The 12 pedagogical abilities are 1) teachers are expected to have excellent



knowledge of language teaching approaches, 2) understand and use a variety of language teaching techniques, 3) efficiently design and implement teaching plans, 4) continuously monitor students' understanding of the lesson. and making adjustments when needed, 5) knowing students' needs for language knowledge, 6) providing maximum feedback, 7) stimulating interactions between students and groups, 8) using principles appropriate class management, 9) have effective and clear presentation skills, 10) creatively adapt materials from textbooks, audio visuals, and other teaching aids, 11) can create innovative learning materials when needed, and 12) using intrinsic and interactive motivational techniques in constructing the test.

Developments in teaching, especially in responding to the needs of teaching in the 21<sup>st</sup> century, abolish the traditional view of teaching, which sees that teaching is only an activity of transferring knowledge from the teacher to students, as expressed by Nurkamto (2004) that the traditional view of teaching is to see students as an empty bottle that the teacher can fill at any time. Students are required to sit quietly in chairs that are arranged facing the front of all and must listen to their teacher. Furthermore, Language teaching and learning has a tendency to be governed conventionally by a linguistic paradigm in which the main point of reference is the linguistic descriptions made by linguists (Lian, 2006, p. 5). However, language learners, especially as they become proficient, operate functionally through the manipulation of symbolic systems that are often unrelated to the descriptions of language made by linguists. In the context of 21<sup>st</sup> century learning, addressing the role of modern technology to promote personalized language experiences is a prerequisite for creating better pedagogical approaches.

The pedagogical characteristics offered by Brown are still very relevant to change the traditional impression in teaching. Teachers are required to be creative and innovate in all aspects of teaching. These innovations are

urgently needed by English teachers for the purpose of language skills based on assessment literacy. The 21<sup>st</sup> century teacher must have literacy such as knowledge, skills, and attitude regarding assessment. Assessment is an important part of learning design. So we know the concept of learning that teachers have to complain about the curriculum and be able to develop learning materials, develop pedagogy, learning activities, and learning tasks themselves.

### 1.7.3.1 Transformative Pedagogy

Language teaching and learning has a tendency to be governed conventionally by a linguistic paradigm in which the main point of reference is the linguistic descriptions made by linguists (Lian, 2006, p. 5). However, language learners, especially as they become proficient, operate functionally through the manipulation of symbolic systems that are often unrelated to the descriptions of language made by linguists. In the context of 21<sup>st</sup> century learning, addressing the role of modern technology to promote personalized language experiences is a prerequisite for creating better pedagogical approaches.

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.

Transformative learning is repeated in the National Higher Education Standards (Mortha, 2020, cited by Sudimantara, 2021)

with its attention to student-centred, interactive and collaborative approaches to learning. Transformative pedagogy focuses on the relationship between students, the context of their experience, and the world. Learning, according to standards, is to lead to the formation of “a comprehensive and broad mindset by internalizing local and global excellence and wisdom” (Moritt, 2020). Learning is student-centred to ensure that the student experience is integrated, not overlooked, for students to relate their learning to their local context as they see it and a global perspective.

#### 1.7.3.2 Assessment as Learning

The assessment is very broad and complex, the assessment is also adjusted to the whole process or holistically. In addition, the assessment is adjusted to the learning activities. So the ideal assessment must have a process rather than a result. According to Popham (1995) states that assessment should be part of learning, not an integral part. *Resnick* (1985) stated that in essence assessment focuses on assessing the student learning process. In this regard, *Marzano et al* (1994) stated that in revealing students' mastery of concepts, assessment does not only reveal concepts that have been achieved, but also about the development process of how a concept was obtained. In this case the assessment can not only assess student learning outcomes and processes but also their learning progress.

In addition, The importance of formative assessment in student learning is discussed at various levels in the context of a teaching and learning environment. With the recognized goal of assessment in education being to support learning, several educational reforms have clearly recognized the importance of formative assessment and feedback (Black & William, 2006;

CDC & HKEAA, 2007). According to bulunuz et al. (2016) show that formative assessment creates opportunities to encourage the development of students' skills in explaining, interpreting, and reasoning. Narciss (2008) provides a comprehensive overview of the benefits of timely and informative feedback (ie, formative assessment). The shift in pedagogy towards problem-based learning and dynamic inquiry-based learning is gaining increasing attention as a means to support 21st century skills development.

#### 1.7.4 Assessment Literacy

Assessment literacy is essentially in this era where important decisions are being made about students, educators, and educational systems based on the data collected from students. Understanding the appropriate roles that student assessment can play to determine levels of student achievement and educational accomplishment, as well as to guide improved learning, is critical. (Michigan Assessment Consortium, 2017). Then, According to AAAS (American Association for the Advancement of Science), literacy assessment is the capacity to use scientific knowledge, identify questions and to draw conclusions based on evidence in order to understand and help make decisions about the natural world and human interactions with nature.

Based on the above opinion, it can be concluded that literacy assessment is the ability to use knowledge about assessment to identify problems and draw conclusions based on the evidence from the assessment results in order to understand and make decisions based on the assessment results. Assessment of students is one of the most important responsibilities for teachers, because the quality of learning in the classroom is closely related to the quality of the assessment applied by the teacher. a study in Malaysia entitled "Enhancing Malaysian Teachers' Assessment

Literacy" showed that the level of literacy assessment in Malaysia was unsatisfactory. Similar results were also found in a study in Thailand entitled "A Study of Classroom Assessment Literacy of Primary School Teachers" which revealed that most teachers had low literacy assessment levels. If we look at our own country, namely Indonesia, many teachers are suspected of having a low literacy assessment level.

If a teacher does not have a good literacy assessment, the teacher cannot know the abilities and developments of each student which will have an impact on the learning process and student learning outcomes. Therefore, it is important for teachers to have and master a literacy assessment. In the journal "Important of Teacher Assessment" (2014). explained that literacy assessment is important for teachers to improve teaching. In addition, by having and mastering a literacy assessment a teacher can interpret assessment data, communicate with students about the status of their learning understanding and use assessment information to manage the time spent in achieving learning objectives.

#### **1.7.5 Language Teaching Concept**

There are many definitions of language teaching and learning from experts and practitioners. One of these definitions was put forward by Brown (2007: 7) who said that "teaching is guiding and facilitating learning, enabling the learner to learn, setting the conditions for learning". In line with Brown, Stern (1991) has previously defined the concept of language teaching which cannot be separated from the concept of language learning as he said that language teaching is activities aimed at realizing language acquisition. The inseparability of teaching and learning is also emphasized by Weinbaum, Allen, & Blythe (2004) who defines language teaching as an activity to guide learners that aims to change and improve

their skills, behavior, dreams, appreciation, and knowledge. Teaching is a process that helps learners to construct their knowledge using a certain conceptual framework.

After reviewing several definitions of teaching and learning, Nurkamto (2004) argues that there are two implications in learning. The first is the role of the teacher/lecturer as a teacher whose job is to help students/students to learn. The form of assistance can be in the form of providing motivation and guidance. Teachers are also expected to be able to provide media and tools that facilitate learning. Giving motivation can be in the form of making students aware of the existence of intrinsic (from within) and extrinsic (from outside) motivation. Guidance can be in the form of explaining the learning objectives, the nature of the assignment, and the strategies used to do the assignments. What is meant by providing facilities for learning is how teachers/lecturers make learning easy. The second implication relates to who the parties are most responsible for in learning activities. Nurkamto said that the party who has the greatest responsibility in learning is the learner himself. Learners are expected to be independent subjects (autonomous). Independent here means that 1) learners plan and organize their own experiences in learning, 2) learners know their field of study, 3) learners monitor their learning progress, 4) learners have the opportunity to do practice questions, 5) learners enthusiastic in language learning, and 6) learners have confidence in using the language they are learning and can help themselves if they encounter difficulties.

From these definitions, it can be concluded that a teacher must be able to become an agent of behavior change for his/her students. But keep in mind that the main subject in teaching is the student. The tasks that are planned by the teacher to be given to students must be designed in such a way that it can facilitate students to be able to find the difficulties they face and overcome them. The task of a teacher or lecturer is not only to provide

information but to motivate and guide students/students and also acts as a provider of teaching for students.

### **1.7.6 Multisensory Learning**

In this era of globalization, learning is required to follow the developments and demands of the times, learning must be carried out to prepare students to be accepted by the community. Learning is no longer ancient with the same method and only involves one sense, for example hearing, because students have the right to be stimulated from various sources. Learning must be holistic, students have the right to learning as it happens in their lives. There must be a concrete simulation with the help of many things, including using media and various learning models.

The multisensory approach in teaching literacy is a learning process that utilizes sensory-visual (sight), auditory (hearing), and kinesthetic-tactile (movement, touch) to improve memory and learning processes. All three sensors are optimized simultaneously and support each other so that children can store shapes, codes and letter names more easily. In practice, children are taught to associate letter sounds with written symbols/forms and feel, write down the shape of the letters. There are three processes, namely seeing the shape of the letter, mentioning the sound, and writing it down. There are several reasons why using a multisensory approach in developing preschool children's literacy skills.

Multisensory learning is learning that is carried out by involving various sensory stimulation including hearing, sight, touch and sometimes smell and taste (Abidin, 2012). A learning is said to be multisensory learning when the learning can involve the five senses. The characteristics of multisensory learning are learning that uses drama, art, music, food, drinks, videos, interactive media, smell and other interesting elements that can stimulate students (Rick, 2008).

The term multisensory teaching is defined as “a way of teaching that requires students to activate all of their abilities—seeing, hearing,

smelling, tasting, moving, touching, thinking, intuitively, enjoying-in various situations” (Baines, 2008, p.21). Baines (ibid) also asserts that teaching through abstract representation is easy to apply, but it is one of the least effective methods for fostering learning, whereas teaching through stimulating multiple senses allows students to master abstract language. He further explained that through multisensory learning techniques, students can have a reciprocal relationship between sensory input and thinking, interact with material more intensely, and retain what they have learned for a longer period of time. In addition, their intellectual and social potential can be developed, and their minds can be occupied with lessons such as playing which are related to real life. He also highlighted that teachers can overcome student engagement and achievement difficulties through direct, visual, auditory, and olfactory stimuli and by linking the activity to relevant academic goals.

The benefits of multisensory stimuli seem substantial, especially in contrast to the current practice of teaching to the test. Of course, if the score is the goal, multisensory learning can dramatically improve performance on standardized tests, too. Indeed, a recent, exhaustive report on teaching reading in the United Kingdom found that multisensory appeals were essential tools for maximizing student achievement.

*“The best teaching . . . was at a brisk pace, fit red children’s interest, often by engaging them in multisensory activities, drew upon a mix of stimulating resources, and made sure that they received praise for effort and achievement” (Rose, 2006, p. 16).*

Then the curriculum could become not a series of assignments delivered across some dimension of time, but a series of carefully choreographed experiences. The teacher who purposefully crafts multisensory experiences to foster students’ social and intellectual development is teaching, whereas



the teacher who asks students to read and answer questions is merely assigning.

From several analyzes of the book regarding aspects of multisensory, the author agrees to use the approach from the book "A teacher guide to multisensory learning" from Lawrence Baines. Where the aspect can meet the aspect of multisensory criteria in the rubric for holistic assessment that the author made, the results of the analysis are Multisensory learning is a way of teaching that requires students to activate their full faculties; seeing, hearing, smelling, tasting, moving, touching, thinking, intuitive, enjoying-in a variety of situations.

#### **1.7.7 Multiple Intelligence**

According to Gardner (2011), humans do not only have one intelligence, but develop intelligence consisting of nine kinds of intelligence. The types of intellectual intelligence known as multiple intelligences include Linguistic, mathematical-logical, visual-spatial, musical, kinesthetic, interpersonal, intrapersonal, naturalistic, and philosophical-ethical intelligence. If all these multiple intelligences are grown, developed and involved in the learning process, it can increase effectiveness in learning activities. Teachers need to implement innovative learning, because the nine intelligences of students can be developed through various activities carried out.

To be able the criteria for multiple intelligence aspects, the authors agree to use the approach of the Smart Teaching book from Ronald Fitzgerald, D.Ed. (2006), from the three books above. The analysis of the book, it shows that learning activities involve nine intelligences which include: Linguistic, mathematical-logical, visual-spatial, musical, kinesthetic, interpersonal, intrapersonal, naturalistic, and philosophical-ethical intelligence. Eberle (2011) reveals that each intelligence cannot be separated one by one, because one intelligence is related to other intelligences.

Anderson (1995) explains that the old concept of two types of memory short-term and long-term has been replaced by the theory that there is only one type of memory, with different functions. For the purposes of this discussion, we consider three functions: sensory memory, permanent memory, and working memory. Sensory memory is concerned with the temporary storage of data from the senses (Anderson, 1995). Permanent memory contains all the information, organizing ideas, skills, and processes that constitute the knowledge domain. In short, everything we understand and know how to do is stored in permanent memory. Working memory uses data from sensory memory and permanent memory. As the name implies, working memory is where data is actively processed.

#### **1.7.8 Bloom's Taxonomy**

Permendikbud No.21 of 2016 concerning Graduate Competency Standards (SKL) states that the reference for SKL is Bloom Taxonomy which was first recognized by a group of researchers led by Benjamin Bloom in (1956) and further developed by Anderson and Krathwol in (2001) Bloom Taxonomy categorizes learning outcomes into three domains, namely the dimensions of knowledge related to mastery, dimensions of attitudes related to mastery and behavior, and dimensions of skills related to mastery of skills. Dimensions of knowledge are classified into factual, conceptual, procedural, and metacognitive. The dimensions of this cognitive process are arranged hierarchically starting from remembering (remembering), understanding (understanding), applying (applying), analyzing (analyzing), assessing (evaluating), and creating (creating).

Based on the description above, what is meant by multiple intelligence in knowledge is the process of collecting and processing information to measure and improve the competence of students in the form of a combination of cognitive process control (thinking skills) remembering, understanding, applying, analyzing, and creating with factual, conceptual knowledge, procedural, and metacognitive

### 1.7.9 CEFR Level

CEFR is a language proficiency standard that was originally a reference for languages in Europe, but is now being adopted in other regions outside Europe such as Japan (Japan Foundation, 2010). One of the international standards that can be used to measure language proficiency for foreign language learners is CEFR (Common European Framework of Reference for Languages).

CEFR stipulates six levels of foreign language mastery, namely A1 (beginner), A2 (elementary), B1 (Intermediate), B2 (Upper Intermediate), C1 (Advanced), and C2 (Proficient). The language learners who are at level A means including novice learners. A1 means basic beginner learner and A2 means advanced beginner learner. Learners who are at level B are intermediate learners. B1 means basic intermediate and B2 means high level intermediate. Learners who are at level C are considered advanced learners. C1 means basic advanced learners and C2 means advanced advanced learners.

A1	A2	B1	B2	C1	C2
BEGINNER	ELEMENTARY	INTERMEDIATE	UPPER INTERMEDIATE	ADVANCED	PROFICIENT

### 1.7.10 Rubric

According to Egodawatte (2010), "rubrics can help teachers examine and describe students' responses to challenging assignments and establish the competence levels of their students. The rubric also offers more precise criteria that explain what to expect and what constitutes a thorough response.

Fuchs (Viyanti, 2009) states that performance appraisal can improve the learning process, because performance appraisal helps educators to make decisions based on the ongoing learning process. Based on the statement above, it is clear that the student's performance must be in accordance with

the assessment. Therefore, the development of rubrics can improve the learning process. This rubric is used to assess the quality of student performance comprehensively. Rubrics also allow students to rate their own performance, in a self-assessment session, after completing some products or doing some performances with the referenced assessment tool. Students can decide how their performance is judged on a continuum of quality.

### **1.8 Previous research**

In some of these theoretical foundations, the researcher describes previous research related to the assessment. Previous research has discussed making assessment rubrics from the initial observation stage to producing assessment rubrics that have existed previously to assess performance results, both in the field of teaching English and other scientific fields.

As the research reviewed above suggests, the wider implementation of rubrics in higher education can have great potential, both for students' short-term performance and for their development towards self-learning. To date, however, research on the implementation of larger-scale rubrics for formative use is lacking and most research is based on small samples and short-term interventions. This is especially true in the context of higher education, whereas in the school setting there are a number of studies with larger samples and longer interventions (Brookhart and Chen, 2014; Panadero and Jonsson, 2013).

According to Taufiqulloh (2016) concerned with learning support and applying "self-assessment" procedures in academic writing courses to support the development of self-study skills, such as self-regulation, self-monitoring and self-assessment. assessment encourages students to recognize their strengths and weaknesses in learning, and overcome various learning problems" (p. 55). Self-assessment, according to Taufiqulloh, promotes learning, increases students' awareness of their own learning, improves individual student goal orientation, reduces the burden of teacher assessment and requires long-term effects on learner autonomy. In previous studies, which was quoted by Taufiqulloh, the

strategy applied to increase independence also included a self-editing checklist in the essay writing process. The self-editing checklist descriptions are dense and lack the detail necessary to understand the mechanics. However, the idea deserves attention, especially, because the purpose of the strategy is, at least in name, the target of learning objectives stated in the modern.

According to Resti and Kresnawati (2020) Assessment is an activity to reveal the quality of the learning process and results. So that it can be said that assessment is the application of the use of assessment tools to obtain as much information as possible about the success of students in mastering certain competencies. Assessment is different from evaluation in that the evaluation only focuses on value-related cognitive abilities (Resti and Kresnawati 2020).

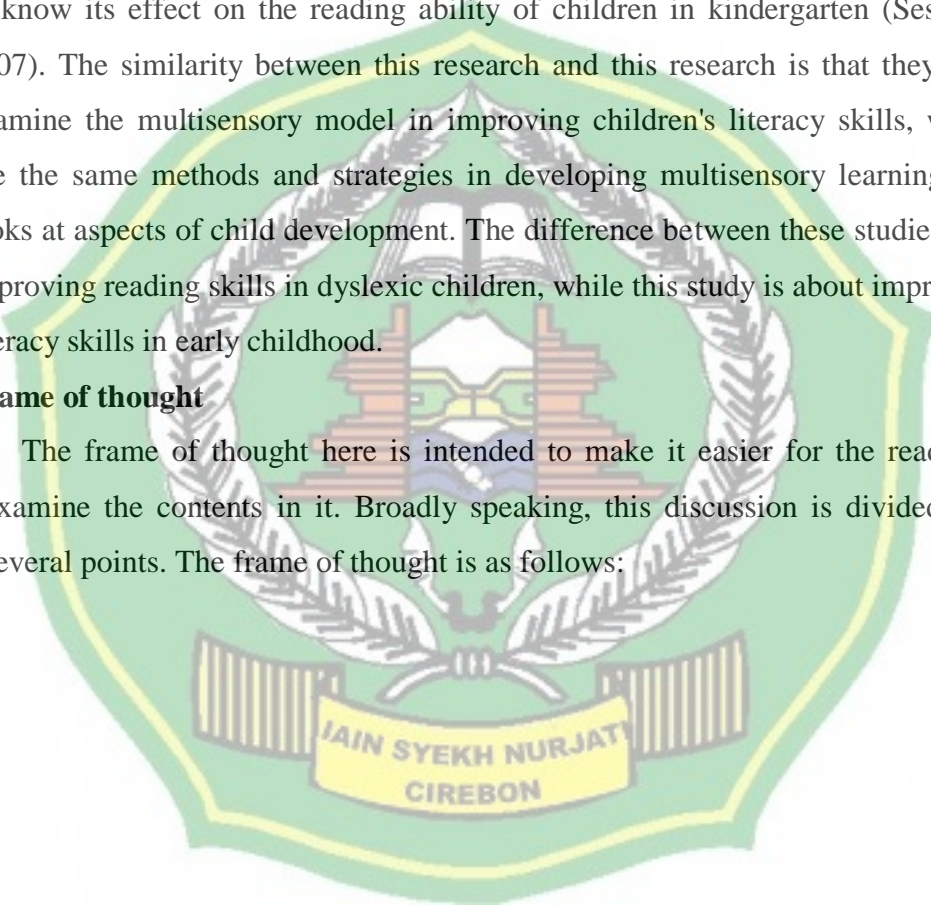
Furthermore, the journal written by Fitria Fajar Setyawati, entitled "Effectiveness of the Multisensory Method to Improve Early Reading Ability in Class II Children with Mild Mental Disorders at SLB Negeri Semarang", the journal discusses the effectiveness of the multisensory method to improve early reading ability in mentally retarded children. This study is a single experimental study with an A-B-A design. The population in this study were students with mild mental retardation in class II who attended SLB Negeri Semarang and the subjects in this study were 2 people who were determined non-randomly using purposive sampling technique. Given the low intelligence possessed by mentally retarded children, an appropriate and effective method is needed in learning. There are many methods that can be used to improve early reading skills in mild mentally retarded children, one of which is the multisensory method (Setyawati, 2017). The similarity between this study and this study is that they both examine multisensory methods to improve children's literacy skills. The difference is that the purpose of this study is to determine the effectiveness of the multisensory method to improve the ability to read surface readings in grade II mild mentally retarded children at SLB Negeri Semarang.

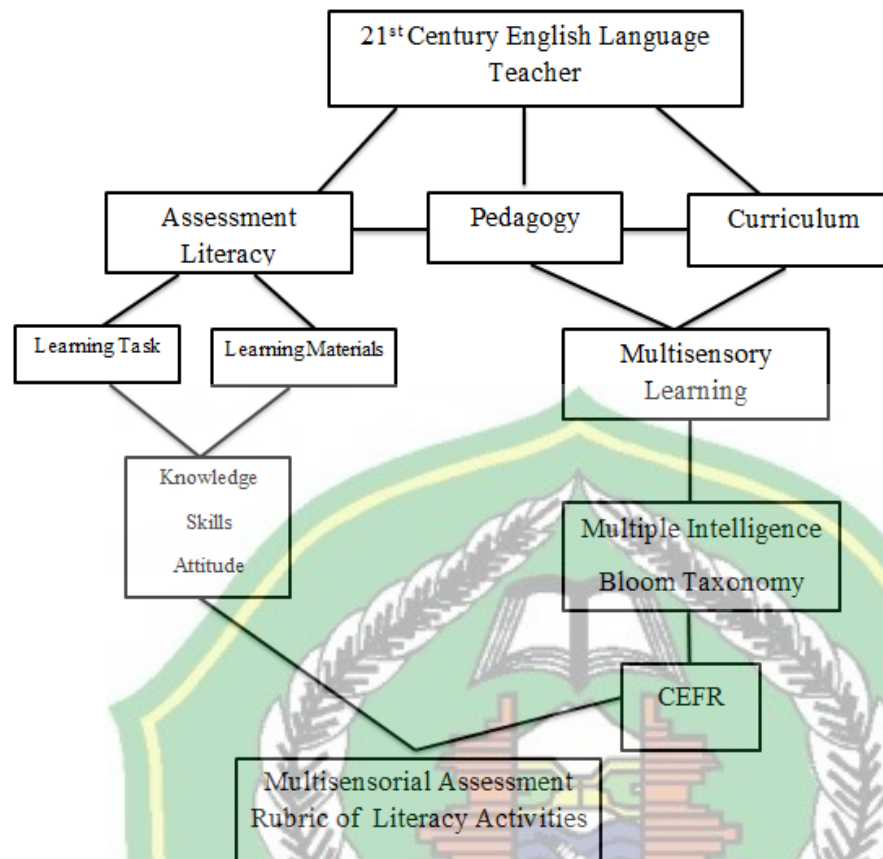
According to Lucky Ade Sessiani, a student at the Faculty of Psychology at Diponegoro University in 2007, entitled "The Effect of Multisensory Models in

Improving Beginning Reading Ability in Dyslexic Children at Kindergarten ABA 52 Semarang", this thesis discusses the multisensory method that has been used in teaching children to read. Dyslexia has several principles that pay attention to the abilities and learning styles of children. This method is also able to arouse children's interest and motivation, as well as provide opportunities for children to practice reading a lot. Seeing the principles of applying the multisensory method that has a positive impact on the reading process, we want to know its effect on the reading ability of children in kindergarten (Sessiani, 2007). The similarity between this research and this research is that they both examine the multisensory model in improving children's literacy skills, which use the same methods and strategies in developing multisensory learning that looks at aspects of child development. The difference between these studies is in improving reading skills in dyslexic children, while this study is about improving literacy skills in early childhood.

### **1.9 Frame of thought**

The frame of thought here is intended to make it easier for the reader to examine the contents in it. Broadly speaking, this discussion is divided into several points. The frame of thought is as follows:





*Figure 1.3 Frame of Thought*

### 1.10 Research Method

The following paragraphs describe the research design and steps chosen by the researcher.

### 1.10.1 Research Design and Steps of the Research

The researchers used qualitative in this study. This approach is used because the focus of this study is to obtain fact on developing an assessment rubric for multisensorial teaching and learning in junior high school. However by using this approach it is based on reasons that can be given by participants which is required and very detailed. Qualitative research is the research process for understanding that is based on tradition research to understand those based on the research tradition with a typically method of researching human or societal problems. Researchers construct a complex and holistic picture, analyzing words, reporting the views of information detail and conduct research in natural settings (Creswell, 2016, p.19)

Furthermore, this research is a type of research and development research and development (R&D) which is a research and development method used as a scientific way to research, design, produce, and test the validity of the products that have been produced (Sugiyono, 2015, p.30). In this study, the design of the ADDIE development model consists of five stages, such as; Analysis, Design, Development, Implementation, Evaluation. However, the researcher will use the ADDIE model until the implementation stage because the researcher does not use product effectiveness validation so that the evaluation stage is not used.



The procedures for the stages of the ADDIE development model according to Sugiyono (2015: 200) are: the first stage (Analysis) at this stage, analyzing activities related to existing problems in Indonesian language learning and environmental conditions based on the 2022 prototype curriculum are carried out. The two stages (Design) researchers carry out a product design. The three stages (Development) at the product development stage, researchers carry out product validation to validation experts (teacher and lecturer), in order to determine the validity of the products developed by researchers. The four stages of Implementation (Implementation) at this stage the products produced by researchers are implemented to students. From the implementation of these stages, researchers can find out the results of the products that have been developed.

#### **1.10.2 Sources and Types of Data**

The data collect from some literatures and participants. The numerous data that taken from some literature includes: (journals), books, journals, articles related to the self-accessed materials for autonomous learning in the 21st century based on the student needs used in the theoretical foundation (Nashruddin & Mustaqimah, 2020, p. 85). The primary data will be collected from participants, namely: students and English teachers in junior high schools. Ten students in grades 7,8,9 and one English teacher were determined by the English teacher regarding students' interest in learning English. The researcher gave a learning task in the form of a link (EF test), the results of doing the test were then analyzed with the assessment rubric that had been developed and adjusted to the CEFR level obtained. And also conduct product validation tests on experts. Here the researcher only brought a few students to do a learning test. Thus, data will be obtained from respondents (students and teachers) to arrange this research in the form of a learning task.

### 1.10.3 Data Collection Techniques and Instruments

Interviews were used as a data gathering approach for this study. The interview is a step in the data collection process that will be completed in the second stage. From interviews with companies, researchers can gain more precise and full information that is relevant to what the interviewer sees. In addition, the interview process tries to fill in any gaps in knowledge and adapt to the situation. The approach of conducting interviews in this study is a semi-structured interview. Semi-structured interviews are a common tool used in qualitative interviews to help researchers gather more information from the questions presented in this guide. In this regard, Siyoto and Sodik believe that semi-organization is a frequently utilized guideline because questions are constructed and researchers can go further into data by studying interviewer information (2015, p.65).

A tape recorder, chat, and Voice Note are some of the instruments used to collect data here (VN). It will be easier to copy for researchers. The researcher duplicated the responses of the participants based on what they said. Because the researcher can hear and evaluate the encounter again, the response is more detailed and exact. The results of the interviews will be analyzed to balance the observation conclusions by triangulating. Correcting instrument defects, boosting the dependability of test findings, and providing follow-up questions to go deeper into the specifics are just a few of the benefits of Nugrahani-based triangulation (2014, p. 132)

### 1.10.4 Data Analysis Techniques

Qualitative data analysis is inductive, meaning it is based on the information gathered during the data gathering process. Researchers employ descriptive approaches to acquire data, such as data selection, data identification, data description, and data interpretation. As a result, the data has been recognized, and researchers will find it easier to collect further

data now that they know what to look for. The following stages, adopted by Sugiyono (2018), will be used to analyze the data:

#### **1.10.4.1 Collecting the Data**

Data collection means that data collection is done by data collection techniques, namely interviews. The data obtained from the interviews were analyzed using thematical analysis and proved by analysis diagrams and word clouds. Identifying data means recognizing and revealing the characteristics of the data obtained. Thus the data that has been identified and known characteristics will make it easier for researchers to conduct further data collection.

#### **1.10.4.2 Reducing the Data**

Following the identification of the data, the data will be reduced according to the group. Data will be categorized and organized depending on responses to each study question from both learning assignments and interviews. Reducing involves getting rid of data that isn't being utilised.

#### **1.10.4.3 Display the Data**

Following that, the researcher identifies, reveals, and collects data based on the group. The information will be displayed and thoroughly explained. Describe this information in a way that is clear and exact, with the goal of making it intelligible to individuals who haven't seen it personally.

#### **1.10.4.4 Concluding/ Verification**

The information gathered is collected, reduced, and displayed. After the data has gone through this procedure, the researcher will come to a conclusion about the research findings that are relevant to this study.

### 1.10.5 Research Timeline

This research needs six months to be investigated start from writing research proposal until thesis revision. This research begins from January to June 2022 as like showed in the following table:

**Table 1.1 Research Timeline**

No	Activities	Months (2022)																
		January		February- March			April			May			June					
1.	Research Proposal	█																
2.	Revision of research proposal		█	█	█	█												
3.	Collecting the data using literatue																	
4.	Analyzing the data																	
5.	Interpreting the data using interview																	
6.	Concluding the data											█	█					
7.	Finalization of research												█	█	█	█	█	█