CHAPTER II
REVIEW OF RELATED LITERATURE

This chapter discusses the theories used in this study. It presents the review of the previous studies, language testing items evaluation, and the common features of language tests. Then, it is followed by an overview of the English National Examination, Higher Order Thinking Skills, and English Teaching in SMA and SMK.

A. Review of the Previous Studies

Many research investigated the HOTS questions English National Examination, including a study reported that was conducted by Tomy Kartika Putra and Debiga Fikky Abdullah who found that the integration of HOTS questions in the English National Examination in Indonesia from 2013 – 2018 was insufficient. From the 210 analyzed items, There were 157 items classified into LOTS and there were only 53 categorized as HOTS. Besides, the 53 HOTS items lack variation of the sub aspect of HOTS.   All of them are classified into the level of analysis. It is also reported a previous study stated that English National Examination in Senior High level consisted of 87.4% for LOTS items and only 10.6% for HOTS. Such condition was considered not effective in stimulating learners to optimize their critical thinking. There was a need for the test developers to decrease the quantity of LOTS questions and increase the HOTS questions.

Also, a study was done by Umi Latifah Ahmad who had analyzed which level of the Barret Taxonomy was more reflected in English National Examination (ENE) items of 2013-2014 Academic Year. The result indicated that Lower Lower Order Thinking Skills (LOTS) still dominated in ENE items than HOTS. From the total number of the questions in 20 test packages,

the items categorized into literal level showed around 68,6%. Meanwhile, the questions belonging to reorganization represented 20,8%.

Also, the HOTS questions mainly inferential level which only reached 10.3%. The result also showed that not all levels of thinking skill were available in that ENE item. The researcher adopted the qualitative descriptive approach using a content analysis card to codify the ENE items. To ensure the reliability of the study, three inter raters analyzed a sample of the package. The similarity between her research and the writer, in analyzing the higher-order thinking skill questions and same level. The difference in on the year of the questions used.

Another research was conducted by Hana Dyah Merina(041214086), Faculty of Teachers Training and Education, Sanata Dharma University Yogyakarta, 2009. Entitle "Analyzing the Multiple Choice items of the Reading Test in Senior High School National Examination". The research focus on the reading test of the English National Examination, the items were listed and classified based on the English reading stated in KTSP. The study used a qualitative approach, the data were collected from the researcher and interview. The similarity between her research and the writer, in analyzing the multiple-choice items in English National Examination, and the differences are in the object of analysis and curriculum.

The following study was conducted by Randip Kaur Sigh and Azinura Hani Shaari, Faculty of Social Science and Humanities, University Kebangsaan Malaysia, 2019. Entitle " The analysis of Higher -Order Thinking Skills in English reading Comprehension test in Malaysia". This research had the aim to identify the use of HOTs items in selected English reading comprehension examinations for Standard 6 students in Malaysia. This research used the content analysis method. The aim to enhance students' cognitive skills and abilities in learning. The similarity between her research and the writer's, in

analyzing the higher-order thinking skill and the differences are in the object of analysis.

B. Language Testing Items Evaluation

One of the important factors to achieve the objectives of education is the process of learning carried out, meanwhile, the effectiveness of learning depends on a good evaluation factor, namely the process and the result. Evaluation encourages the students will study continuously. To give an evaluation in the instructional program is not enough just based on student 'assessment learning outcomes, but it is needed to reach out to program design and study actively and continuously and it also encourages teachers to actively improve the quality of the learning process and the school itself to increase the quality of school management.

In National Education Standards stated Educational Evaluation is an activity of controlling, guaranteeing, and determining the quality of education of various components of education in each program, level, and type of education as a form of responsibility in the administration of education. Also, Evaluation can be defined as the process of seeking to establish the value of something for some purpose. It means that the process enables teachers to assess the students' achievement. It will increase and the education will be successful.

The main concern in this study is language testing items evaluation. Langauge testing plays important role in the teaching and learning process. It helps the language teachers to place the students at their appropriate levels, to find out the student's strengths and weaknesses, to evaluate their work during and the end of their learning. In general, language testing is associated with a test or examination held at a specific time and purposes, such as placement test, diagnostic test, achieved test, proficiency test, and aptitude test. Language testing is assessing and measuring activity that is given to a person's language competence and performance or testing language ability. It is an evaluation of

an individual's language proficiency. It can be a precious tool for obtaining information that is relevant to several concerns in language teaching. It also sets techniques, procedures, and items that change an instrument of some sort that requires performance or activity on the part of the test-taker.

C. The Common Features of Good Language Test

Related to the importance of the evaluation, it is necessary to consider that the test should be well constructed. It refers to some experts, there are some criteria of a good test. A good test should have (1) Validity, (2) Reliability, (3) Level of difficulty, (4) Discrimination Power, and (5) The Quality of Options. And the item analysis is used to determine the level of difficulty, discrimination power, and the quality of options. Simply, Good language tests have to fulfill three criteria, namely reliability, validity, and practicality.

Also, it stated some criteria of the good quality test as "a good language test usefulness" including reliability, construct validity, authenticity, interactivity, impact, and practicality. It describes to evaluate a student properly is to use the assessment tool having the features and good qualities test mentioned above. A test should be constructed to have students learn from their weaknesses. Moreover, the accurate results a tester can describe the testees and right decision would be taken accordingly.

D. English National Examination.

National Examination is a standard educational assessment of primary and secondary education in Indonesia which is administered by the BNSP and has been administered by Sukyadi for its students since 2005 (Government Regulation number 19 of 2005). The test must be done by sixth, ninth, and twelfth graders at the end of junior and senior high school (grade 9 and 12) as the minimum graduation requirement (UNESCO, 2010). Also, the purpose of the National Examination (NE) is to measure and evaluate the Indonesian students' competencies after the process of teaching and learning at the end of each educational level (i.e. grade six, nine, and twelve).

The implementation of the National Examination (NE) itself in Indonesia is considered as high – stake testing that leads to phenomena indicated as a washback effect, mainly because its result was utilized as a basis to make decisions concern with the student's graduation at high school. Therefore, it has appeared positive and negative washback effect which have created pros and cons related to National Examination. Those who pros to National examination considered that NE would be able to improve the quality of education. Meanwhile, those who against the National Examination supposed that National Examination has created anxiety and injustice among the students. Due to its focus on the cognitive aspect and ignored the affective and the psychomotor aspect of educational goals. Therefore, the government policy toward the implementations of NE in Indonesia brought about negative impacts for students locally and nationally when the result is used as a basis to decide the students' graduation.

Of course, by conducting the National Examination, the government expect that the result of National Examination which is a part of the system applied to increase the quality of education and hoped to be used by school principles, teachers, and stakeholder as a policy and decision-maker that National Examination is as the instrument that is done at the National level in increasing National Education.

English National Examination in Indonesia is nationally administered to measure students' English Competence. In English National Examination, the skill tested consists of listening, reading comprehension, and writing in multiple-choice format. These tests may train learners to practice all levels of cognitive skills and are the base of the whole learning process. Evaluating reading and listening comprehension texts and tests are of great importance because this task helps learners gain and develop their knowledge.

E. High Order Thinking Skill (HOTS)

1. The Understanding of Higher Order Thinking Skill

    Nowadays, the Education field needs to prepare students to face the increasingly complex challenges of the 21st century. Technological skills, emotional intelligence skills, and high-order thinking such as creativity and problem-solving are skills needed in this era.

    HOTS is one of the important components for an individual to be able to solve new problems in the 21st century. HOTS also plays an important role in applying, connecting, or manipulating prior knowledge to effectively solve new problems.

    That is why, the students have to learn and master essential skills including critical thinking, problem-solving, creative and innovative thinking, and collaboration and communicative effectiveness. They are a higher-order thinking skill. In line with the revised Bloom's taxonomy (Anderson & Krathwohl, 2001), HOTS is an opening between the three top components of the cognitive process dimension (analysis, evaluation, and, creation) with the three top components of knowledge dimension (conceptual, procedural, and metacognitive). Therefore, a teacher must understand well about the HOTS concept, so that it can help introduce HOTS activities to the students and ready to solve a problem and make the decision on particular problems. Furthermore, the higher-order thinking skill is related to the scientific approaches in the 2013 curriculum; observing, questioning, associating, experimenting, and communicating, because those approaches are also related to the problem solving and critical thinking skill which belongs to the higher-order thinking skill.

    The categories considered as HOTS are analyze, evaluate, and create. Each category is broken down into sub-categories with their particular characteristics. Analyze consists of three sub-categories differentiating, organizing, and attributing. The following category is assessing with two sub-classifications, checking and critiquing. The first is identifying with the thinking activity that includes recognizing the effectiveness of a

procedure being implemented and testing the inconsistencies of fallacies inside a process or product. On the other hand, critiquing includes the activity of identifying the external criteria of inconsistencies or inappropriateness of a given procedure. In other words, checking is judging an object or a procedure based on internal criteria. In this way, a test item that provides a task with those characteristics is categorized evaluate. The last category is creating with three sub-categories: generating, planning, and producing. Next, the result of students' HOTS development can be achieved by the active role of the teacher in planning, implementing, and evaluating HOTS-oriented learning. Therefore teachers need knowledge of ways, strategies, methods to train students about HOTS.

In conclusion, the higher-order thinking skill is the ability to think in a complex process which useful for transferring knowledge in real life, thinking critically, and solving problems.

2. HOTS in Bloom's Taxonomy

In designing a learning system, the educational goals are the important thing that must be paid attention to. This is done so that the learning system can run efficiently, as well as systematic in its movement. According to Bloom, the educational goals have been divided into several domains, and each domain consists of detail division based on hierarchy.

The term Bloom's Taxonomy is not strange for teachers since it is one of the ways for determining the objectives of learning. Bloom's Taxonomy is a basic framework for categorizing the educational goals, test designing, and curriculum. The concept of Bloom's Taxonomy was introduced by Benjamin S. Boom, a psychologist in education, with his friends in 1956. This taxonomy classifies educationals goals into three domains namely cognitive, affective, and psychomotor. Bloom's Taxonomy can help teachers to complete the development of assessment, such as any kind of test and other evaluation of student learning, curriculum, such as unit, lesson, project, and

other learning activities and instructional method, like questioning strategies. Moreover, Bloom's Taxonomy can be considered as a classification system used to determine the difference of levels of human cognition. for example, thinking, learning and understanding.

The cognitive domain is considered the most crucial domain among other domains because it can actualize the knowledge from the transferred information. Therefore, in reading comprehension skills, the role of the cognitive domain can be referred to as the process of information along with the development of thinking skills and abilities. To know, the development of one's abilities and skills, the cognitive domain also works to acknowledge the existence and concepts. In the teaching and learning process, teachers can apply the cognitive model, including Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. The cognitive domain consists of six levels which are divided into two parts, they are LOTS and HOTS.   LOTS refers to memorizing information and the ability to recall knowledge. It is showed by the first three levels; knowledge, comprehension, and application. Meanwhile, HOTS refers to the process of thinking that is utilized at the highest levels of cognitive processing. It is showed by analysis, synthesis, and evaluation.

In 1949, Bloom and his team proposed a revision of the cognitive domain that aimed to make it easier for teachers to conduct learning objectives. The revised Bloom's Taxonomy is proposed to see ahead of time and respond to the demands of developing the educational community, including how children develop and learn and how teachers prepare to teach materials, and all have developed significantly when compared to forty years ago.

Also, the main focus of the revised Bloom's Taxonomy is intended on its application power to curriculum preparation, design instructional, assessment, and a combination of the three.

There is a fundamental change in the Revision of Bloom's Taxonomy, namely it focuses on applications and changes to terminology. In the original Bloom'sTaxonomy, the emphasis was given to the six categories of cognition. Meanwhile, The Revision of Bloom's Taxonomy emphasizes more sub-categories so that it is more specific and the preparation, assessment, and intonation. Therefore, the Revision of Bloom's Taxonomy changed the six categories of cognition, which are "Nouns" in the original Bloom's Taxonomy into six main categories of cognitive processes, which are " verbs". It is intended to make the user easily identify at which level of cognition a learning objective will be achieved or learning activity will be carried out or assessment will be made.

The cognitive process measurement looks like the original Bloom's taxonomy except for the order of the last category that is reversed or a bit rearranged, from synthesis and evaluation to evaluate and create. This means the same but the order is rather rearranged. The difference between the original Bloom's Taxonomy and The Revised Bloom's Taxonomy can be identified as follow :

Table 2.1

The differences between Original Taxonomy and Revised Taxonomy.

Original Taxonomy	Revised Taxonomy
Knowledge	Remember - retrieve relevant knowledge from long-term memory (recognize, recall)
Comprehension	Understand – determine the meaning of the instructional message (interpret, classify, summarize, infer, compare)

Application	Apply – use a procedure in a given situation (execute, implement)
Analysis	Analyze – break material into parts and see how they related (differentiate, organize, attribute)
Synthesis	Evaluate – make judgments based on criteria and standards (check, critique)
Evaluation	Create – put elements together to form a coherent whole or make an original product (generate, produce)

The table above explains that the meaning of each domain is the same in both the original taxonomy and the revised taxonomy. The differences are only showed in the word-used and the rearrangement of the last two domains; synthesis and evaluation which into evaluate and create. Those two skills are rearranged because it is considered that the students need to be able to critique and check an idea before they produce and generate some result . The two skills that ask students to conduct thinking and reasoning process more detail than memorization are included higher-order thinking level of the cognitive domain in Bloom's Taxonomy. So, there are three high thinking levels, included analyze, evaluate and create.

The existence of Bloom's taxonomy helps teachers to design the students' activities based on their cognitive abilities. It means that teachers can use it to examine the level of thinking to assist them to integrate those levels within each lesson and assessment. Besides that, it is needed to make sure that the students have already known and mastered the skills before they are assessed. As teachers should give motivation and encourage their students to implement thinking skills to get more knowledge. Recently, some aspects, like critical

thinking, problem-solving, and language integration skill have been done in learning activities, mainly within the English language teaching. For arranging the questions in the exam, it should be made based on their level of difficulty.

Therefore, develop lessons and assessments can be integrated with HOTS. It has been stated that HOTS play an important role in learning material for reading comprehension. Their studies showed that the writers get the strategy of HOTS on reading comprehension seen from the C1 – C6 phase of HOTS strategy and indicated that the students have higher-order thinking skills in comprehending the text. However, Bloom's taxonomy has been revised, it is presented that is about the aspect of thinking both in LOTS and HOTS.

F. English Teaching in SMA and SMK

Language including English is a means to communicate among others. By communicating, one can express the information, thought, and feeling in spoken and written. Through English, we can develop our knowledge, technology, and culture. Of course, in our daily life, we use language as a tool to establish interpersonal relationships, exchange information, and enjoy the beauty aspect of the language.

Language teaching may be rather different from other subjects. In language learning, students can express their ideas and think both in spoken and written. Moreover, students can give responses and answer written and oral text so that students should actively use that language used. Language is a means of communication that is to express the ideas and people's thought to convey their ideas to other. So language can not be separated from other fields of life.

For students who study in secondary education, language learning, mainly English is limited to understanding text that will be used by the students in understanding textbooks. Besides that, they are also expected to able to produce texts that are studied and can express them orally. English,

as an international language, has been involved in almost all aspects of people's life. Students should have competence in both spoken and written English mastery to face the global era. Because many jobs required applicants to have English. While in education applies a strictly English language curriculum.

Based on its function, the objective of English teaching in the current curriculum is including : (1) develop the ability to communicate language both oral and written, including listening, speaking, reading, and writing ; (2) encourage the awareness of the importance of English as one of the foreign languages as learning sources; (3) develop of the understanding of the relationship between language and culture. Thus, the students have cross -culture and can take a part in diverse cultures.

To achieve the objective of English learning, in this case, it is needed the relationship among the components of the curriculum. They are the objective of learning that is stated in the formulation of core competence and basic competence. Next, it stated indicators that are used as considerations to develop the other components of the curriculum, such as the materials, learning activity, and evaluation.

As we know, language teaching in senior high levels still focused on student's competence in using language to achieve the communication goals in various contexts both oral and written. The curriculum that applies to English for all levels and has a different level of difficulty and complexity, continuing to increase according to the level. This makes English for high school have higher difficulty and complexity than the lower level. The materials are given to the students using the same approaches, it is text-based approaches. This refers to the function and its use of language that unity both oral and written meanings. There are many definitions related to the text in language learning. These texts are text genre or text types and given in definition, purpose, generic structure, and language feature. The

text classification may differ from one theory to another. Based on generic structure and language feature dominantly used, the English text is divided into 13 types. They are narrative, recount, descriptive, report, explanation, analytical exposition, hortatory exposition, procedure, discussion, review, anecdote, spoof, and news item. Thus, genre-based learning is very relevant to apply.

According to the 2013 curriculum, in genre-based learning, this English syllabus emphasizes improving student's ability to use English in various kinds of texts. These texts will be used as a tool for carrying out various activities in real life. English teaching using Genre-based learning also supports the other subjects in the curriculum. Therefore, English teaching at the High School must begin to prepare students facing the global era. The materials should also begin to lead to the professional world using formal and official language. Also, The curriculum must actively train students who intend to continue their education to a higher level by providing thesis and essay writing exercises. Therefore, teaching material becomes a crucial issue because it gives a significant impact on reaching teaching and learning objectives by the learners. Its purpose is to reach the objectives of teaching-learning so that the learners get the benefit of the teaching-learning process

In general, English competence should be given to the student is the ability to communicate in three kinds of texts, mainly,(1) interpersonal ; (2) transactional ; (3) functional both oral and written, at the level informational literacy, to carry out social function, social-cultural, academic, and personal life. Besides that, using the various form of text with coherent and cohesive structures and linguistic elements appropriately. The following are the scope of competencies and general English materials for SMA and SMK students.

Competencies	The Scope of materials

• Show the behavior that can be accepted to personal environments, social-cultural, academic, and professional. • Identify the social function, text structure, linguistic elements in the short text of daily activity of students. • Communicate interpersonally, transactionally, and functionally to the self, family, other people, animals, things related to the daily activity of students, at school, society, and related to other subjects and jobs. • Catch the meaning and arrange the text both oral and written.	• Many short texts refer to interpersonal, transactional, and functional passages including descriptive, recount, narrative, procedure, explanation, analytical exposition, and news items. • The mastery of each kind of text including three aspects: social function, text structure, and linguistic elements. They are determined and choose based on their objective. • Do activity honestly, discipline, responsible, care, and politely. • Development of language skills including listening, speaking, reading, and writing • Linguistic elements, including punctuation, vocabularies, pronunciation, grammar, stressing, and the tidy of handwriting. • Modalities

The objective of learning English in SMK (Vocational Schools) is to make the students able to communicate in English to support the students' major skills. Therefore, they should develop students' competencies in spoken and written English. This is in line with The government regulation of the

Republic of Indonesia No. 29 of 1990 concerning secondary education, chapter I general provisions, article 1 (3), which implies that vocational education should focus on the development of student's skills in the specific field. In article 3 (2), it is clearly stated that vocational education should give the priority to prepare vocational high school students to enter the workplace and developing professional behavior. Also, the act of the Republic of Indonesia No. 20 of 2003 on National Education System article 15 stating that vocational education is a secondary education program for preparing learners for a specific job. It means that Vocational School graduates are expected to get jobs directly after they finish studying. The ability to communicate with others is based on four abilities, listening, speaking, reading, and writing. Communication skills are expected for them. Therefore, vocational students must master both active and passive English that is related to their major of expertise. Meanwhile, time allocation in English teaching in one week for Senior High School is different than Vocational High School.