

## Improving Students' Writing Ability based on Higher Order Thinking Skills (HOTS) Questions at 8<sup>th</sup> Grade in SMP Swasta Kartika 1-4 Pematangsiantar

Lasta Pita Duinarti Sianturi<sup>1</sup>, Dumaris E. Silalahi<sup>2</sup>, Christian Neni Purba<sup>3</sup>

<sup>1,2,3</sup>English Education Department, Universitas HKBP Nommensen Medan, Indonesia  
lastasianturi0709@gmail.com<sup>1</sup>, dumaris.silalahi@uhn.ac.id<sup>2</sup>, christian.purba@uhn.ac.id<sup>3</sup>

---

**Abstract:** *The objective of the research was designed to find out the students' ability in writing descriptive text by using HOTS questions at 8<sup>th</sup> grade in SMP Swasta Kartika 1-4 Pematangsiantar. It deals with content, organization, vocabulary, language use, and mechanics. The problem of this research was "to what extent does the students writing ability based on the application of HOTS questions? This research was designed as a quantitative research. The sample of this research was taken from two classes that consist of 60 students (30 students in experimental group in class VIII A and 30 students in control group in class VIII B. Then quantitative data were obtained from the students' writing score of pre-test and post-test. The research finding of this research showed that there was an improvement on the students' writing ability in descriptive text based on HOTS questions. It can be seen from the mean score of pre-test was 57.7 and the mean score of post-test was 85. And the researcher also found that t-test is higher than t-table it can be seen from df: 58 (30+30 -2) with the t-table is 1.67 and the level of significance 0.05. It shows that t-test is higher than t-table (3.28 > 1.67). After analyzing the data, the researchers concluded that using HOTS questions could develop the students' writing ability in descriptive text at 8<sup>th</sup> grade in SMP Swasta Kartika 1-14 Pematangsiantar.*

**Keywords:** *Ability, HOTS, questions, writing*

---

### I. INTRODUCTION

Language is as tool to communicate with each other. The students need to learn language especially English as foreign language. Government also applies this subject in curriculum as duty to learn by students (Purba, 2017:155). In learning English language, the students should master four skills namely speaking, listening, reading and writing. The researcher only focuses to research about students' ability in writing skill because writing is considered as the most difficult skill of English.

Writing is one of English basic skills that has important role. Harmer (2004:31) states that "writing is a process of sharing information, message, and ideas. It is means that in writing, one expresses ideas, opinion, feeling, or experience that somebody read or heard into the written form to develop the writing skill of each student. Furthermore, Silalahi (2017:178) mentions that writing is one of skill in English that refers with transferring ideas in written form. In writing, the teacher needs the concept to start writing. Writing is viewed as communicative thing.

Writing is considered as the most complicated skill of English. It is in accordance with what Westwood (2008) states that writing is the most difficult because the development of writing requires the effective coordination which is cognitive, linguistic, and Psycho-motor processes. Writing expression is a difficult skill for the students. It is true that the students in

junior high school still have difficulties in writing since they lack vocabulary, spelling, and grammar. According to Saragih, Silalahi, and Pardede (2014:56), "Writing is difficult for the students because they lack vocabulary, spelling, and grammar. When they attend an English class, they may have negative perspective. It is due to the fact that in learning English, the learners must learn all of the aspects in English tenses. Learning all the aspects in English tends, to make the students confused and they would be find some difficulties in implementing English grammar in writing context.

Writing have five elements of good writing, they are; purpose, audience clarity, unity, and coherence. Therefore writing classify into a complex intellectual task. It consists of some components skills, such as spelling, grammar, diction, vocabulary, etc. This can be proven form the research conducted by Darus and Subramamam who examined 72 essays written by 72 Malaysian secondary school students. They found out that most of the students 'writing showed students' misunderstanding about rules and grammar applied in English writing (Joan, 2016, p. 62). Similar research was also done by Megaiab (2014), in 140 writings made by junior high school students that she examined, there were 1654 grammatical errors found. Those were related to spelling, plural nouns, and tenses uses of prepositions, articles, and punctuation.

In junior high school, the students are introduced to several English texts, such as descriptive text, recount text, narrative text, and so on. In the context of this research, the researcher will only focus on descriptive text. Descriptive text is one of the functional texts which is difficult enough to be learned by the students. Descriptive text is a text that describes the features of someone, something, or a certain place. Descriptive text consists of identification and description. Identification is the part of paragraph that introduces the character, and description is the part of paragraph that describes the character. The students can use the simple present and adjective clause in writing descriptive text. In writing the descriptive text, there are some of students often find some difficulties. The students usually feel difficult to organize their ideas and also the students have low motivation because there is no media that can help them to organize their ideas. The others difficulties in writing descriptive text there are; composing sentence, grammatical in structural sentence, spelling, deleting words, and editing sentences. Therefore, many students made some mistakes and faced difficulties to build and developed their imagination.

Based on the researcher experience that was conducted on July 2019 in teaching practice at SMP Swasta Kartika 1-4 Pematangsiantar, many Junior High School students were not interested in writing descriptive text because it seemed difficult for them. They did not know how to write correctly, especially in choosing a word or vocabulary to put in the sentence. The others difficulties in writing descriptive text there are; composing sentence, grammatical in structural sentence, spelling, deleting words, and editing sentences. When the researchers give assignments to 30 students to make descriptive text, the most who answered with an average score were only 12 students, with a score of 75. While the 18 students scored below average.

The way that a teacher can do to build ideas and develop students' imagination in writing description texts, the researcher using Higher Order Thinking Skill (HOTS) questions. The Higher Order Thinking Skill (HOTS) learning strategy is seen as a good method for sharpening the ability of students to write while honing their thinking skills. Higher Order Thinking Skill learning is one of the learning strategies in the form of action plans including the use of methods and utilization of various resources / strengths within learning. This learning strategy has a set of learning steps that are directed to improve the process and student learning outcomes.

In English language teaching, higher-order thinking skills aid the students to more easily learn English language particularly in writing skill. It is in line with Collins' (1991) argumentation saying that the integration of critical thinking in language learning will develop students' writing skill (Setyarini et al., 2018). Moreover, writing skill is very valuable in terms of communication. Communication between people is very complicated that is where writing skill take role. Writing skill influence students to produce and convey information and ideas well. Combining writing skill and higher-order thinking skills then will help the students on delivering the students' idea more easily in written form.

Therefore, by applying this HOTS questions, hopefully this media can solve students' difficulties in writing, caused by their lack of mastery of grammar and vocabulary, build ideas and develop their imagination. That's a good influence on their writing. Based on the statement above, researchers are interested in conducting research "Improving Students' Writing Ability Based on HOTS Questions at 8<sup>th</sup> Grade in SMP Swasta Kartika 1-4 Pematangsiantar".

## **II. THEORETICAL REVIEW**

### **A. Writing**

#### **1. Definition of Writing**

Writing is one of language skills besides speaking, listening, and reading that can be the way of people to explore and to communicate to each other with express their feeling and their thinking. According to Pardede (2014:57) writing is one of the language skills which is important in our life. Moreover, Knapp and Watkins (2005:82), "writing is itself a relatively disciplined activity and while discussion and working with peers is important, so are the times to individually reflect on work and independently complete a task". Writing is a good support for the other three skills. As the basic level, writing is an act of committing words or ideas to some medium.

Writing is one of English basic skills that has important role. Harmer (2004:31) states that "writing is a process of sharing information, message, and ideas. It is means that in writing, one expresses ideas, opinion, feeling, or experience that somebody read or heard into the written form to develop the writing skill of each students. In writing, the teacher needs the concept to start writing. Writing is viewed as communicative thing. Kirby and Crovitz (2013:6) state that writing is an act of creation, which makes writing instruction uniquely different from many other kinds of teaching. In writing, teachers impart to the students a body of knowledge, but they also teach habits of mind, choices for self-expression, strategic thinking, and self-awareness. When they do all of this well, their students are able to assess new situations and call upon their skills to literally create something new that fully meets expectations.

From the definition of some of the experts above, the researcher can conclude that writing is the process of thinking and creating some ideas in sequences of orders, such as: words, sentences, paragraph, and text. The sequences maybe very short-perhaps only two or three sentences but because of the way the sentences have been put in order and linked together, they form a coherent whole. Then it will be form a text.

## **2. The Purpose of the Writing**

According to Grenville (2001:1) there are many different kinds of writing, such as: novels, poems, short stories, script, letters, essay, reports, reviews, instruction. All of them are writing. They all have the basic purpose of getting ideas from one mind into another. And here some purpose of writing:

### **a) Writing to Entertain**

Entertain does not necessarily make the readers laugh, but it at least engages their feelings in some way. Think what it's like to be a reader. Writing to entertain generally takes the form of so-called "imaginative writing" (of course, all writing requires some imagination and creativity). Examples of imaginative writing are novels, stories, poems, song lyrics, plays and screenplays. Sometimes imaginative writing disguises itself as a 'true story' for added effect.

### **b) Writing to Inform**

Inform tells the reader about something. These kinds of writing can also be 'entertaining' in the sense that they are a good read. Examples of writing to inform are newspaper articles, scientific or business reports, instructions or procedures, and essays for school and university.

### **c) Writing to Persuade**

Persuade tries to convince the reader of something. This includes advertisements, some newspaper and magazine articles, and some types of essays. This type of writing might include your opinion, but as part of a logical case backed up with evidence, rather than just as an expression of your feelings.

## **3. Process of Writing**

According to Harmer (2004:4-6), writing process is the stages the writer goes through in order to produce something in its final written form. Related to the definition, Harmer stated that there are four elements in writing process:

### **a. Planning**

Planning is the first step in doing writing. The researcher plans what he is going to write or type in this step. It can be done by making detailed notes. When planning, the writer has to think three main issues, they are purpose, audience, content, structure. So planning is the first step that will guide to next step.

### **b. Drafting**

Drafting is the second step in writing. It is an activity in which the writers will start their writing. They will write whatever in their mind. They will write as they know.

### **c. Editing (Reflecting and Revising)**

Editing is the third step in doing writing. Editing can be done after drafting has done. It means that after doing drafting, the researcher will read what has been written to see where is works and where is does not. It is to edit or to make clear about the writing, so that it can be easy to publish. It needs some corrections to avoid some mistakes in writing and avoid the ambiguity in writing. It can be done if the planning has been done first. So drafting is the second step in writing.

### **d. Final Version**

Once the writer have edited their draft, making changes that they are consider to be necessary, than they will produce their final version. They may look considerably from

both the original plan and the first draft, because things have changed in the editing process. But the researcher is now ready to send the written text to the intended audience.

Based on the explanation above, process of writing is the stages where the researcher goes through in order to produce a writing matter.

## **B. Teaching Writing**

When helping students to become better writers, teachers have a number of crucial tasks to perform. This is especially true when students are doing writing for writing' activities, where they may be reluctant to express themselves or have difficulty ways and means of expressing themselves to their satisfaction. Among the tasks which teachers have to perform before, during, and after student writing are the following:

### **1. Demonstrating**

Since as we said, students need to be aware of writing conventions and genre constraints in specific types of writing, teacher have to ale to draw these features to their attention. In whatever way students are made aware of layout issues or the language used to perform certain written function, for example, the important issue is that they are made aware of these things-tat these re drawn to their attention.

### **2. Motivating and Provoking**

Students often find themselves 'lost for word', especially in creative writing tasks. This is where the teacher can help, provoking the students into having ideas, enthusing them with the value of the task, and persuading them what fun it can be. It helps, for example, if the teachers go into the class with prepared suggestion, when the students get stuck they can immediately get help rather than having, themselves, to think of ideas on the spot. Sometimes teachers can give them the words they need to start a writing task as way of getting them doing.

### **3. Supporting**

Students need a lot of help and reassurance once they get going, both with ideas and with the means to carry them out. Teachers need to be extremely supportive when students are writing in class, always available (except during exam writing), and prepared to help students overcome difficulties.

### **4. Responding**

The way we react to student's written work can be divided into main categories, that of responding and that of evaluating. When responding, we react to content and construction of a piece supportively and often (but not always) make suggestion for its improvement. When we respond to a student work at various draft stages, we will, instead, telling the student how well it is going so far.

### **5. Evaluating**

There many occasions, however when we do want to evaluate student's work, telling both them and us how to well they have done. All of us want to know what standard we have reached (in the case of a progress/achievement test). When evaluating or student's writing for test purposes, we indicate where they wrote well and where they made mistakes, and we may award grades; but, although test-making is different from responding. We can still us it not just grade students but also as a learning opportunity.



### **C. Components of Writing**

Writing is not only drawing some words on a piece of paper and formulating letter together. Writing is about meaning. If you just write letter and it does not have meaning it is not classified as writing. Writing needs some components to make it as a good writing and has meaning. Components of writing are very important to make our writing good and easy to understand by the audience. There are five components of writing by Harmer (2004):

#### **1. Organization**

It contains reasonable sentences that support the topic of the writing. Organization is needed to understand the meaning of text. If the idea and sentences are well organized it can be understood by the reader.

#### **2. Content**

Content refers to the sentences that flow easily and is not too hard to understand. Reasonable sentences or ideas that are arranged into a good story refer to meant by the content. The content also includes the idea of the writer. It means that what writer is going to convey ideas to the reader.

#### **3. Grammar**

Grammar is connecting with how the words are arranged into good sentences. Good means correct in the tenses and has meaning. Some students got the problem in grammar. This happen because some of them are still confused what verbs that should be used in the sentence. They cannot differentiate between the verbs that should be applied according to the times. Another problem is the using “of” and “to be” in English, so because of those mistakes sometimes their writing cannot be understood by others.

#### **4. Punctuation**

Punctuation or spellings are important in writing. It is needed to make their writing sounds reasonable to be read. We need to put capital letter, commas, and point in our writing. We should pay attention dealing with punctuation or spelling. This ability needs careful practice.

#### **5. Style**

Style deals with the precise vocabulary usage and the use of parallel structure. Vocabulary takes important role in English. Vocabulary is the basic thing that should be owned by the students. Without that, they cannot do many kinds of English tasks. The lack of vocabulary means the failure in the communication. So in writing, students must have enough vocabulary to make it succeed.

### **D. HOTS (Higher Order Thinking Skill)**

In this 21st century education, critical thinking skill or higher-order thinking skills (HOTS) is critically required in order to be successful in this modern educational society. Yoke et al., (2015) say that the aim of higher-order thinking skill is to introduce school activity and education system that encourage the students to apply, analyze, evaluate, and think in creative ways. Since the last decade, this skill has been implemented in all school levels and all school subjects either in Asian or European country. The education purpose today is to shape the students to fit 21st century elements schooling. Yee et al., (2016) also emphasize that higher order thinking skills assist the student to develop their thinking quality which can also upgrade their skills and values and apply their knowledge for solving problem and making right decision.

Therefore, higher-order thinking skills is integrated in all school subjects including English language.

Benjamin Bloom has published his theory, Bloom's Taxonomy, about human thinking skills from the lower stage to the higher stage at the beginning of 1956 in three range; 1) Cognitive area which is related to the mental ability in terms of knowledge, 2) Affective considered as the mental ability in terms of emotional or feelings and 3) Psychomotor which is considered as the physic ability proceeding from mental activity.

Those classifications were then divided by Anderson and Kratwols into six criteria; remembering, understanding, applying, analyzing, evaluating and creating with categorization remembering, understanding and applying as Lower-Order Thinking Skills (LOTS) and analyzing, evaluating and creating as Higher-Order Thinking Skills (HOTS)

The ability to enlighten the information or knowledge is called Analyzing. The students need to separate the material and the concepts into some part and analyze the data whether it is a fact or inferences to make a right decision. It is undeniable that every group member has their own ideas how they solve the problem. To choose which one is the match decision that can solve the problem, the students need to evaluate their friends' ideas; therefore, the ability to assess the value of new knowledge for a given purpose is needed which is considered as evaluating skill.

After passing those processes, the students demand to create product by combine those skills. In this stage, the students had passed Creating part considered as the capability to bring all that elements together in order to create and make a real product. The teacher can lead the students to make a product freely. For example, the students present their own ideas in a creative way, such as; in form of magazine or newspaper designed or in oral presentation like usual way. It has to be highlighted that students are given a privilege on how they want to create their product creatively. Regarding those complicated skills mentioned above appears a new high level of analytical skill terminology which has been hot issue in education world nowadays called higher-order thinking skills (HOTS).

Not only that, Brookhart (2010) also classify the higher-order thinking skills into three parts: (1) higher-order thinking skill in terms of transfer, (2) higher-order thinking skills in terms of critical thinking, and (3) higher-order thinking skills in terms of problem solving. In terms of transfer students not only own the knowledge and the skills, but also apply the knowledge to the real situations outside the class. The ability to decide what to do by considering the reason, investigation, observation and comparison from several points of view is higher-order thinking skill in term of critical thinking. And in terms of problem solving is the skill which is considered as skill owned by a student or person to find a proper solution of their problem that cannot be simply solved only by memory or formula (Collins, 2014). Therefore, higher-order thinking skills is the relation of cognitive and metacognitive ability that can be expanded by solving problem, evaluating, analyzing ideas and identifying elements needed to draw conclusion or make a proper decisions.

### **1. The Importance of HOTS Questions**

Dillon (1988) as cited in Shen & Yodkhumlue (2011) highlighted that the strongest method of effective teaching that can activate pupils' learning and thinking, as well as support the teacher to recognize their students' learning strategy is through question. Therefore, teachers plays a vital role in composing questions for the pupils in their daily practice, which fits to their level of understanding. Pupils' achievements can be improved through effective questions.

Effective questions enable learner's to focus their attention to make sense on the content of the lesson, increase their curiosity, activate their imagination, and motivate them to acquire new knowledge (Husin, 2006). Thus, the teacher needs to be aware on the difficulty level of the question and the pupils' cognitive growth. Collins (2014) labelled that teachers are very good at thinking spontaneously, however without well preparation and objective in mind, they will likely asking questions that are not stimulate pupils' higher order thinking. A good proportion of questions is ideal, where not every questions and discussion has to be pitched at higher order thinking. Collins (2014) added, the questions should be built to encourage pupils' to reflect on their learning, which will allow them to acknowledge their thinking strength and weakness.

## **2. Analysis of HOTS elements based on Bloom's Taxonomy**

The participants came out with a total of 69 HOTS sentences in their Pre-test whilst in their posttest, the participants had shown a positive improvement as they were able to write 207 HOTS sentences altogether. These sentences has been analyzed and categorized based on Bloom's Taxonomy Level of Higher Order Thinking Skills.

### **a. Analyzing**

The first level of HOTS is analyzing level. In his level, the participants do have the ability to interpret, discover, compare, or to explain the consequences of a situation. For example, one of the participants was able to explain the consequence of an action, where he wrote 'The naughty boys should not be playing firecrackers inside their house because there are a lot of flammable items in the house. One boy accidentally threw the firecracker to a curtain which caused the fire.

### **b. Evaluating**

The second level has less number of sentences compared to the other two lower levels because the participants are expected to be able to judge or evaluate a situation. Most of the participants were able to express their ideas orally but when it comes to writing, they were challenged due to limited vocabulary. However, among those 27 sentences categorized in this level, one participant has laid his idea beautifully by stating and justifying on his disagreement about the situation. He wrote down 'The naughty boys should not be playing firecrackers inside their house because there are a lot of flammable items in the house'. According to the sentence, it is clearly shown that the participant has stated his disapproval on the act that caused the fire.

### **c. Creating**

In this level, the participants are required to develop or build a new idea in their essay. For example, the picture stimulus displayed only the fireman putting down the fire using water. However, one of the participant managed to portray the situation happened before the arrival of the fireman, and listing down the alternative to put down the fire in his sentence. 'The villagers were busy putting down the fire by using a sack of sand and buckets of water.



**Table 2.1 Dimensions of the Thinking Process**

<b>HOTS</b>	<b>Creating</b>	<ul style="list-style-type: none"> <li>• Creating your own ideas</li> <li>• Verb: constructing, design, creation, developing, writing, combining, formulating.</li> <li>• Make decisions about the quality of information</li> </ul>
	<b>Evaluating</b>	<ul style="list-style-type: none"> <li>• Verb: Evaluate, assess, refute, decide, choose, support, suspect, predict, identify.</li> <li>• Specify aspects/ elements.</li> </ul>
	<b>Analyzing</b>	<ul style="list-style-type: none"> <li>• Verbs: elaborate, compare, check, criticize, test.</li> </ul>

### **3. Implementing HOTS through some Strategies**

There are some ways that can be applied by the teachers in the classroom to improve students' English productive skills while integrating their higher-order thinking skills.

#### **A. Questioning**

Baston (1981); McKenzie (1972); Taba (1966) as cited in Singh et al., (2018) have been proven that higher cognitive processes can be led by higher level question. The open-ended question stimulates the use of students' higher-order thinking skills. Setyarini et al., (2018) describe that open-ended students require the students to think critically by giving their opinion, comment and reasons. When the students ask a question about the material that teacher give, it means that students create connection between their previous concept and the new concept that they get which give them better comprehension of a concept. The more question students asked the more information they are going to get which also increase their writing ability regarding many ideas they possess.

#### **B. Inference**

Another strategy that can be used by the teachers is guiding the students to infer the knowledge to the real problem. The teachers can bring a current or trending issue to the class and the students are demanded to write an essay regarding problem solving based on the issue given by the teachers. In this stage, the students are trained to apply their knowledge in a real situations. Based on Johnson and Thomas (1992) report, one of the successful learning strategies

is helping the students to classify their knowledge using visual media and aid maps which can visually exemplify the students concept and the relationship between it (Singh et al., 2018).

### **E. Text**

“Language is always produced, exchanged or receive as a text; that is language as a system of communication is organized as cohesive units we call texts. A text is any completed act of communication such as a greeting between friends in the street a television advertisement, a novel, or a film and so on. As far as speech and writing are concerned a text stands alone as an act of communication”, (Knapp and Watkins 2005:29)

### **F. Genre**

Hyland (2004:15) stated that “Genre is a term for grouping texts together, representing how writers typically use language to respond to recurring situations. Every genre has a number of features which make it different to other genres: each has a specific purpose, an overall structure, specific linguistic features, and is shared by members of the culture. For many people it is an intuitively attractive concept which helps to organize the common-sense labels we use to categorize texts and the situations in which they occur. A genre can define as a culturally specific text-type which results from using language (written or spoken) to help accomplish something. It takes place through a series of stages, and uses language in particular ways. It means that genres are culture specific, and have associated with particular purposes, particular stages, and particular of linguistic features.

It is related to Knapp and Watkins (2005:37) stated that “Genre is the social context and relation in which texts are produced.” Genre is classified according to their social purpose and it identified according to the stages, they move through to attain their purpose. It is knowledge of the social contexts which give life to texts and this is more important than their formal patterns. It is important, however, not to overestimate genre flexibility.

There are thirteen genres in writing, they are: poof, recount, report, analytical exposition, news item, anecdote, narrative, procedure, descriptive, hortatory exposition, explanation, discussion and review”. Every genre has a number of characteristic and it has the specific purpose which makes it different from other genre. In this study, the researcher only focuses on the genre of descriptive text.

### **F. Descriptive Text**

#### **1. Definition of Descriptive Text**

Descriptive Text is a text which has social purpose to give an account of imagined or factual events (Hyland, 2004:214). Meanwhile Pardiyo (2007:2-3) classifies the text into eleven types, they are; description, recount, narration, procedure, explanation, discussion, exposition, news item, information report, anecdote, and review.

However in this research, the text will be focused on the descriptive text According to Pardiyo (2007:33-34), description is a type written text, which has the specific function to give description about an object (human or non-human). Descriptive represents in words our sensory impressions caught in a moment of time. In much descriptive writing visual imagery dominates. From the opinion about descriptive above, so the writer concludes that the descriptive

text is a text which describes person, place, mood, situation, and etc. It also describes an object that appeal to the sense.

## **2. Generic Structure of Descriptive text**

Every genre has a certain structure or stages in order to get something done through language. There are two elements as requirement for a text to be identified as descriptive text; identification and description.

### **a. Identification**

The identification element aims at introducing and identifying specific participant (a person, thing, place, and animal) to be described in the descriptive text

### **b. Description**

The description aims at describing the specific participant in text. It contains descriptive details or information of the specific participant by providing the description of its characteristics, appearances, personality, habits or qualities.

## **3. Language Features of Descriptive Text**

Related to its linguistic features, Knapp and Watkins (2005) state that a descriptive text employs the following linguistic features:

### a) Focus on specific participants as the main character

Has a certain object is not common and unique (only one). For example: My house, my mother, Borubudur temple, my cute, etc.

### b) Use simple present tense as dominant tenses

Simple present tense is the tense used to express an action or activity that takes place/ happening at the current time in a simple form, activity or work performed repeatedly, daily habits, events or actions that have nothing to do with time, and to express general truths.

### c) Use linking verbs or relational process

Use linking verbs or relational process frequently (is, are, has have, belongs to) in order to classify and describe appearance or qualities and parts or functions of phenomena)

Example: she is beautiful, I have a mother, she has a doll, and the handsome boy belonging to me.

### d) Use nominal group/ descriptive adjectives

Example: white teeth, black hair, patient woman, long hair.

### e) Use adjective and adverbs or detailed Noun Phrase

Use adjective and adverbs or detailed Noun Phrase to add information to nouns and add information to verbs to provide more detailed description about the topic.

Example: a short curly black hair, friendly woman, a very sweet mother, very beautiful scenery, a sweet young lady, very thick fur, etc.

### f) Use adverbial phrases

Adverbial phrases used to add more information about manner, place or time and sometimes realized in embedded clause which functions as circumstances.

Example: she writes neatly, they walk quickly, etc.

### III. RESEARCH METHODOLOGY

#### A. Method of the Research

This research is a quantitative research design. It is an experimental research design. According to Ary (2009:22), "Quantitative research uses objective measurement to gather numeric data that are used to answer questions or test predetermined hypotheses." Which consist of pre-test and post-test in order to know the improving of student's writing ability based on HOTS question. This research is an experimental research which that there is a certain experimentation applied to the population or the sample. In the experiment, a researcher uses experimental group and control group. Experimental group is a group those thought Writing Descriptive text based on HOTS question as a teaching method whereas the control group is a group those thought Writing Descriptive Text of not using HOTS question. The population in this research is the member of grade eight students of SMP Swasta Kartika 1-4 Pematangsiantar.

**Table 3.1 Research Design**

<b>Sample</b>	<b>Pre-test</b>	<b>Treatment</b>	<b>Post-test</b>
Experimental	✓	✓	✓
Control Group	✓	-	✓

**Note:**

- ✓ : Treatment using HOTS questions
- : Treatment without using HOTS questions

#### B. Population and Sample

According to Ary (2009:148), population is defined as all members of any well-defined class of people, or objects. Population is also the group of the people that you want to find out about by doing your research. In this research, the researcher will take students in SMP Swasta Kartika 1-4 Pematangsiantar. There are two classes of this grade. The classes consist of 30 students. Total of population is 60 students. In this research, both population and sample is equal, because total class of 8<sup>th</sup> grade is two classes. To take the sample, the researcher uses purposive sampling method as all of the participants were studying at the school where the researcher was working at. So the researcher took two classes to be researched where experimental group consists of 30 students (VIII A), and control group consist of 30 students (VIII B) and the sums of the students are 60 students. As the research attempts to explore the improving of students writing ability based on HOTS questions at 8<sup>th</sup> grade in SMP Kartika 1-4 Pematangsiantar, this research utilized pre and post-test to compare students' production of HOTS sentences before and after drillings on writing through the questions.

#### C. Instrument of the Research

Instruments are designed to collect the data. The instrument uses in this research is HOTS question. This test means the students write descriptive text based on HOTS questions. The researcher uses writing test in the post-test to both groups with the same item but the experimental group uses HOTS question whereas the control group without HOTS question.

During the pre-test session, students' have asked to write an essay based on HOTS questions. No discussion or guidance was given throughout the session. Two weeks of treatment session take place right after the pre-test where the HOTS questions were utilized and this was done in the afternoon so that the research has not disturb their actual English lesson. Scrivener as cited in Harmer (2004) mentioned that drill is one of the best activities that can be most productively demanding on accuracy. Thus, within that one hour time frame, students' have drill with various writing activities and familiarized with HOTS questions until they manage to develop their cognitive ability and improve their writing ability through their HOTS sentences. Post-test take place on the final week of the research and the students' will be tested using the same stimulus in their pre-test. Students' writing in both pre and post-test has analyzed based on the frequency of HOTS sentences and the level of the HOTS elements based on Bloom's Taxonomy. Students' writing ability in post-test has used to determine the effects of the approach in developing their writing ability.

#### **D. Technique of Data Collection**

Instrument is a device or means used for collecting the data. To get the data of this research, Testhas used. The test is to answer the questions by essay test. Students are asked to answer the questions based on the paper and this test has the instrument. The technique in taking the data of research, the researcher does following steps, as follows:

##### **1. Test**

Test is a systematic behavior and describing it with the aid of a numerical scale of category system. Test is used to measure whether there is or no and how big the ability of the object of research (students). The test was taken twice, pre-test and post-test. Pre-test was taken before applying the treatment and post-test was taken after applying the treatment.

##### **2. Pre-test**

The pre-test is conduct to find out the students' score before treatment. The test was writing test. The Researcher gave several topics to be chosen by students. Then the researcher asked the students to write descriptive text that the text. The function of pre-test is to know the scores of the students in writing skill.

##### **3. Treatment**

The treatment is conduct after the pre-test. There were two groups conducted in this research, the experimental group taught by using HOTS questions and the control group taught without using HOTS question.

##### **4. Post-test**

The post- test was conducted after the students received the treatment. The aim of this test is to find out the students' score after treatments that was improves from pre-test to post-test. The topics gave same as the pre-test topics.

#### **E. Technique of Data Analysis**

After the researcher collect the data, then the researcher analyze the data by the following steps:



1. Finding mean score of each group

The researcher calculates the mean (M) of variable X (experimental group) and Y (control group) by using the following formula:

$$\bar{X} = \frac{\sum fx}{N}$$

$$\bar{Y} = \frac{\sum fy}{N}$$

$\bar{X}$	= the average score
$\sum fx$	= sum of the raw score
N	= number of students

(Hatch & Farhady, 1982: 59)

2. Finding standard deviation

Standard deviation is a number used to tell how measurements for a group are spread out from the average (mean), or expected value.

$$S = \frac{\sqrt{\sum d^2}}{N-1}$$

S	= standard deviation
$\sum d^2$	= sum of mean deviation
N	= number of students
1	= constant number

(Hatch & Farhady, 1982: 59)

3. Testing Hypothesis

Counting t-test to know how far the students' writing ability based on the application of HOTS questions. The t-test formula can be count as follow:

$$t_{test} = \frac{\bar{X}_e - \bar{X}_c}{SE(\chi_e - \chi_c)}$$

$\bar{X}_e$	= Mean of Post Test in Experimental
$\bar{X}_c$	= Mean of Post Test in Control
$SE(\chi_e - \chi_c)$	= standard error

(Hatch & Farhady, 1982: 111)

## F. The Validity and Reliability of the Test

Test validation consists of the establishment of validity and reliability. This two factors should be fulfilled a test before it is used to device the data in research.

### 1. The Validity of Test

In this case, the content of the test was adapted from generic structure of descriptive text based on Mukarto (2007) indicates the elements of descriptive text, they are identify phenomenon identification including person, place, thing. Another one (description) including part, quality, and characteristic.

The content validity of the tests used in this research can be seen as the follow:

Content	Competence indicators	Test items	Kind of test	Score
Identification	Identify people	3	Essay	15
	Identify animals	2	Essay	10
	Identify place	2	Essay	15
Description	Parts	3	Essay	20
	Qualities	2	Essay	20
	Characteristic	3	Essay	20
Total		15		100

## **2. Reliability of the Test**

Reliability defines as necessary characteristic of any good test: to be valid at all, a test must first reliable as a measuring instrument. Reliability refers to the consistency of the scores obtained and how consistent.

## **IV. FINDING AND DISCUSSION**

### **4.1 Research Finding**

Based on the data analysis, the researchers found that improving of using HOTS questions is more effective than using conventional method in writing descriptive text at 8<sup>th</sup> grade in SMP Swasta Kartika Pematangsiantar. HOTS questions give a positive influence to the students. HOTS questions can help the teacher in teaching learning process. The effect of conventional method is lower than HOTS questions. Conventional method focused in explanation. HOTS questions is more significant effect than conventional method to the students' ability in writing descriptive text at 8<sup>th</sup> grade in SMP Swasta Kartika 1-4 Pematangsiantar. From the analysis data, t-test is higher than t-table ( $3.268 > 1.160$ ) at the level of significant is 0.05 with  $df = (N_x + N_y - 2)$ .

### **4.2 Discussion**

Based on the work of the data analysis on the thesis, there are several discoveries which are eventually found by the researcher, these are the following: the use of HOTS questions can improve the students' ability in writing descriptive text at 8<sup>th</sup> grade in SMP Swasta Kartika 1-4 Pematangsiantar.

1. HOTS questions is necessary for a successful classroom.
2. HOTS questions allows for the students to become emotionally connected with school and increase motivation.
3. HOTS questions create a good atmosphere for learning and motivation.
4. HOTS question can be fun as media to express their feeling, opinion, and idea on written text.
5. HOTS question can improve the students' ability in writing descriptive text at 8<sup>th</sup> grade in SMP Swasta Kartika 1-4 Pematangsiantar.

From all the analyzed data, it is found that there was a significant improvement of students' ability in writing descriptive text which was applied HOTS question. It was proved from t-test that had been calculated. The t-test shown the value of t-test was

higher than t-observed. It means t-test was higher than t-table ( $3.26 > 1.60$ ). So based on the score, the null hypothesis was rejected and alternative hypothesis ( $H_a$ ) was accepted.

## V. CONCLUSION

Based on the data analysis and findings above, it was found that there was an improvement of students' ability in writing descriptive texts by using HOTS questions. At the first time, the students were indolent to write, and they did not want to express their ideas. Based on the result of the data analysis presented in chapter IV, the researchers concluded that by using the media of HOTS questions, the students are being helped to come closer to them and learn to trust their ideas of feelings. The result of t-test has proved the significant means of experimental than control group. The result of t-test = 3.682 while t-table 1.60 at  $df = 58$ , ( $N_x + N_y - 2$ ) and the level significant = 0.05, it is concluded that using HOTS questions improve significantly the students' writing descriptive text at 8<sup>th</sup> grade in SMP Swasta Kartika 1-4 Pematangsiantar.

## REFERENCES

- [1] Brookhart, S. (2010). *How to assess higher order thinking skills in your Classroom*, ASCD, <http://www.ascd.org/Publications/Books/Overview/How-to-Assess-Higher-Order-ThinkingSkills-in-Your-Classroom.aspx>
- [2] Collins, R. (2014). Skills for the 21st century: teaching higher-order thinking. *Curriculum and leadership journal*. 12 (14). Australia. Retrieved from [http://www.curriculum.edu.au/leader/teaching\\_higher\\_order\\_thinking,37431.html?issueID=12910](http://www.curriculum.edu.au/leader/teaching_higher_order_thinking,37431.html?issueID=12910)
- [3] Ary, D. (2009). *Introduction to research in education: 8<sup>th</sup> Ed.* Singapore: Wadsworth Cengage Educational Enterprises
- [4] Grenville, K. 2001. Writing from Start to Finish. National Library of Australia
- [5] Harmer, J. (2004). *How to teach writing*. Pearson education limited: Longman
- [6] Hatch, E.M and Farhady, H. (1982). *Research design and statistic for applied linguistics*. Rowley, Massachusetts: Newbury House, Heaton
- [7] Husin, H. (2006). Dimensions of questioning: A qualitative study of current classroom practice in Malaysia. *Teaching English as a Second or foreign Language*. 10 (2). University Malaysia Sabah, Malaysia.
- [8] Hyland, K. (2004). *Genre and second language writing*. Michigan: The University of Michigan Press.
- [9] Joan, A. P. (2016). Grammatical errors in descriptive text written composition of junior secondary school students in Owen west local government area of Edo State. *International Journal of Academic Research in Progressive Education and Development*, 5, 61-66.
- [10] Kirby, D. L .and Crovitz, D. (2013). *Inside out strategy for teaching writing. Fourth edition*. Portsmouth, NH: Heinemann.
- [11] Knapp, P and Megan W. (2005). *Genre, text, grammar*. Sydney: University of New South Wales

- [12] Nihat, B. (2014). The effect of the process writing approach on writing success and anxiety. *Educational sciences: theory & practice*, 14(3), 1133-1141.
- [13] Pardede, H. (2014). *The effectiveness of using text to improve writing skill for grade III students*. Retrieved from <http://repository.usu.ac.id/bitstream/handle/123456789/64805/Effectiveness.pdf?sequence=1&isAllowed=y>
- [14] Pardiyono. (2007). *Pasti bisa! Teaching genre-based writing*. Yogyakarta: Andi.
- [15] Purba, C. N. (2017). The effect of games on students' reading comprehension. Retrieved from <http://repository.uhn.ac.id/handle/123456789/1371>
- [16] Saragih, N., Silalahi, R., & Pardede, H. (2014). The effectiveness of using recount text to improve writing skill for Grade III students of Kalam Kudus elementary school 2 Pematangsiantar. *IOSR Journal of Humanities and Social Science*, 19 (1), 56-64.
- [17] Setyarini, S., Muslim, A. B., Rukmini, D., Yuliasri, I., & Mujianto, Y. (2018). Thinking critically while storytelling: Improving children's HOTS and English oral competence. *Indonesian Journal of Applied Linguistic*, 8(1), 189-197. Retrieved from <http://ejournal.upi.edu/index.php/IJAL/article/view/11480>
- [18] Shen, P. & Yodkhumlue, B. (2011). Teacher's questioning and students' critical thinking in college EFL reading classroom. *The 8th International Postgraduate Research Colloquium: Interdisciplinary Approach for Enhancing Quality of Life IPRC Proceedings*. P 44 – 53.
- [19] Silalahi, D. (2017). The effect of picture series media on students' writing narrative text, 178. Retrieved from <http://repository.uhn.ac.id/bitstream/handle/123456789/3691/PROCEEDINGS%20APRIL%202017.pdf?sequence=1&isAllowed=y>
- [20] Singh, R. K., Singh, C. K., Tunku, M., Mostafa, N. A., & Singh, T. S. (2018). A review of research on the use of higher-order thinking skills to teach writing. *International Journal of English Linguistic*, 8(1), 86-93. doi:10.5539/ijel.v8n1p86
- [21] Westwood, P. (2008). *What teachers need to know about teaching methods?* Camberwell: Victoria.
- [22] Yoke, S. K., Hasan, N. H., Jangga, R., & Kamal, S. N.-I. (2015). Innovating with HOTS for ESL reading class. *English Language Teaching*, 8(8), 10-17. doi:10.5539/elt.v8n8p10