CHAPTER I
INTRODUCTION

This chapter discusses the researcher's purpose in doing this study. It starts from the reasons of accomplishing this research. Then, it continues to the research questions and the objectives by conducting this research. Further, significance of the study, scope and limits of the study, and definition of key terms are also presented to give more information dealing with the benefits, the boundary and the term used in this research.

A. Research Background

There are several rules owned by the teachers. One of them is as the knowledge transmitter. If the role of the teacher is to transmit the knowledge to the learners, the students' role is to acquire all the transmitted knowledge. The knowledge that the teachers give is stated in the learning objectives. In the learning objectives, the knowledge and the way how the students get the knowledge are stated. The learning objectives are used as goal that need to be achieved by the students. Here, teachers are questioned about what can the students do or learn after studying a certain material. That question can be answered by knowing the result or the outcome of the students.

To know the learning outcomes of the students, a teacher need to conduct an assessment. This occurs since in education, assessment is an essential process.[1] Assessment can involve testing, measuring, collecting, combining information and providing feedback. Good assessment design will give the teacher clear outcomes to interpret in the form of score or feedback. In assessment for learning, feedback is needed to improve and develop students' ability. It means that good assessment will give useful information about students' progress.[2] That useful information is used to decide whether the learning objective can be continued or repeated.

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[1] Centre for Educational Research and Innovation. *Assessment for Learning; Formative Assessment.*

[2] John Norcini. "Criteria for Good Assessment; Consensus and Recommendation from the Ottawa 2010 Conference". *Medical Teacher*. Vol.33. 2013, 206.

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In assessing the students, the teacher may give activities and tasks in order to achieve the learning objectives. What the teachers want the student to learn is learning objective. Assessment also needs to be in line with the learning objective so the learning objective can be judged as success or fail outcomes. As stated by Lee, task is defined as any language learning effort that ask students to master, manipulate, and/or produce the target language as they perform some set of workplans.[3] The aim of giving tasks is to train and help the students in achieving learning objectives. The tasks may be in the form of discussion, presentation or test. Multiple choice and fill in the blank are the common task item used in the classroom.[4] Those items are chosen because they are practical. The practicality can be seen in the way students choose or select one best answer and when the teachers score the students' result. Other advantages are more reliable and lower anxiety level.[5] Another tasks that also used are fill in the blanks, short and long answer, matching, true-false, and descriptive test. Those tasks in 2013 curriculum are called as written test. There are three assessment techniques in 2013 curriculum; written test, oral test, and assignment.[6] Oral test will be in the list of questions and assignment is usually done outside the classroom.

To design good task in assessment, some principles or guidelines are revealed by some experts. H. Doughlas Brown clearly explained that there are five principles for evaluation of classroom tests.[7] Those are reliability, practicality, validity, authenticity, and washback. Further, he stated that it will be complicated to only focus on those five principles.[8] Meaning that the five principles from Brown can be added for other principles.

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[3] Foreign Language Teaching Methods; Speaking. *Lesson 3: Designing Communicative task.* (http://www.shanghairanking.com/wcu/wcu1/Tai.pdf , accessed on February 22nd, 2017)

[4] Foreign Language Teaching Methods; Speaking. *Lesson 3: Designing Communicative task.* (http://www.shanghairanking.com/wcu/wcu1/Tai.pdf , accessed on March 13th, 2017)

[5] Foreign Language Teaching Methods; Speaking. *Lesson 3: Designing Communicative task.* (http://www.shanghairanking.com/wcu/wcu1/Tai.pdf , accessed on March 13th, 2017)

[6] Permendikbud Tahun 2016 No. 22

[7] H. Doughlas Brown. *Language Assessment.* (USA: Longman, 2004), 30.

[8] *Ibid,* 30.

However, Susan M.Brookhart has three basic principles in designing good assessment.[9] The principles to construct good assessment is not patent to five or three number, but it depends on situation.[10] It can be added or simplified based on the situation; purpose of assessment (summative or formative) and perspective of stakeholders.[11]

Besides, it is clearly stated in the 2013 curriculum that the evaluation in the learning process is using authentic assessment rather than traditional assessment.[12] Authentic assessment will help the teachers in gaining much information related to the students' improvement. J. Mihael O' Malley and Lorraine Valdez Pierce stated that authentic assessment is multiple types of assessment that can show the students' learning, accomplishment, motivation and attitudes on instructionally-relevant classroom activities.[13] The authentic assessment will provide the assessment in higher-order thinking skills as well. It is based on J. Mihael O' Malley and Lorraine Valdez Pierce' explanation that authentic assessment has several characteristics; (1) constructed response, (2) Higher order thinking, (3) Authenticity, (4) Integrative, (5) Process and product, and (6) Depth versus breadth.[14] Constructed response here means the tasks are asked students to give response in short and can be expanded for the longer explanation. The response that comes from the tasks that ask the students to think critically and creatively are facilitating higher order thinking skills. When the tasks ask the students to give response in critical or creative way, meaning that the tasks are in higher order thinking. Next, authenticity is about the meaningful and challenging task that close to the real-world. The tasks that can integrate more than

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[9] Susan M Brookhart. *How to Assess Higher-order thinking skills in your classroom.* (United States of America: ASCD Publication, 2010), 17.

[10] John Norcini. "Criteria for Good Assessment; Consensus and Recommendation from the Ottawa 2010 Conference". *Medical Teacher*. Vol.33. 2013, 206

[11] *Ibid,* 206.

[12] Permendikbud Tahun 2016 No. 22

[13] J. Michael O' Malley - Lorraine Valdez Pierce. *Authentic Assessment For English Language Learners.* (California : Longman, 1996) , 4.

[14] J. Michael O' Malley - Lorraine Valdez Pierce. *Authentic Assessment For English Language Learners.* (California : Longman, 1996), 5.

one language skills is integrative task. Further, process and product means in the process of creating a product is also important and need to be assessed. It is because in the process of creating, the students are exploring more than one solutions and more than one mental or cognitive activities. As the last characteristic, depth versus breadth provides depth information about the students' skills. By providing an assessment that includes all of authentic assessment characteristics, the students can be facilitated in completing complex task by using previous knowledge and relevant skills to solve real problems.[15]

Furthermore, becoming one of the characteristics of authentic assessment, higher order thinking skills train the students to think more complex in facing problem in the real world. Asking the students to think more complex means requiring them to think critically and creatively and solve problem.[16] For instance, in studying English, the students are provided a paragraph of problem about a hot topic or issue recently. If it goes to higher order thinking skills, the possible learning objective today will be *students will be able to produce the best solution towards the problem.[17]* This task will facilitate the students to think in more complex, creative and critic way. The task in the format open-ended question will be better rather than multiple choice because the students can provide their solution and support it with their argument. By asking the students to produce the best solution, the teachers facilitate the students the thinking skills of hypothesizing; cognitive process of create. This thinking skills allow the students to have more than one right answer.[18]

If higher order thinking skills refer to the teachers' learning objective, it will connect to cognitive process domain of learners. To assess cognitive domain of the students, teachers are helped by the framework of cognitive domain. One of

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[15] *Ibid,* 5.

[16] Nur Rochmah Laily - Asih Widi Wisudawati. *"Analisis Soal Tipe Higher Order Thinking Skill (HOTS) Dalam Soal UN Kimia Rayon B Tahun 2012/2013". Kaunia.* Vol.11 No.1, April 2015. 28

[17] L. W. Anderson, et.al., *A Taxonomy For Learning, Teaching And Assessing.* (New York: Longman, 2001), 86.

[18] *Ibid,* 86.

cognitive domain frameworks is Bloom's taxonomy. Instead of using SOLO taxonomy, Webb's taxonomy or Marzarano taxonomy, Bloom's taxonomy is believed as the concise and clear taxonomy in specifying the cognitive level.[19] As in Bloom's taxonomy revised version *remember, understand,* and *apply* as level number one, two, and three show the lower level of thinking skills, while *analyse, evaluate* and *create* as level number four, five and six show the higher level of thinking skills. Bloom's taxonomy helps the teachers in categorizing learning objectives and assessments according to the level of complexity.[20] As the example before that stated *students will be able to produce the best solution towards the problem* is in the level of *create*. This level is the highest level in Bloom's taxonomy revised version. This learning objective asks the teacher to provide the students a task in higher order thinking skills.If the teachers cannot provide task in higher order thinking skills, it is automatically said that the teacher cannot fulfil one of the characteristic of authentic assessment.

It will be a big question for the teachers about how they design the assessment task. Do the teachers correctly design the assessment following the principle of good assessment? Are the tasks in the complexity level or difficulty level? Do the tasks facilitate higher order thinking skills? Why higher-order thinking skill become important is that because the goal of education itself is preparing the students to identify and solve problems in the real world.[21] The problems will come either from academic work or problem of life.

Using higher-order thinking skills, students are expected to solve the problem by identifying and critiquing the best solution and think creatively to keep safe. This, additionally, becomes becomes the teachers' job to facilitate task in higher order thinking skills for the students which asks the students to think not only in the difficulty but also in the complexity. When the teachers can provide tasks correctly by following the

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[19] Anat Zohar. *Higher Order Thinking in Science Classrooms: Students' Learning and Teachers' Professional Development.* (Springer Science + Business Media B.V, 2004), 1.
[20] Susan M Brookhart. *How to Assess Higher-order thinking skills in your classroom.* (United States of America: ASCD Publication, 2010), 39.
[21] *Ibid*, 6.

principles and facilitate higher order thinking skills as well, automatically they help the students to earn good outcomes and train them to think in higher order level. Also, it is a reflection of the authentic assessment in 13 curriculum.

However, we cannot deny that teachers' ability in facilitating higher order thinking skills will be reflected upon the teachers' competence.[22] The problem may come from the teachers that only provide the task in lower order thinking skills. Whereas, the activity in the learning process already facilitate higher order thinking skills. Another possibilities is that the task is only in the level of difficulty not in the level of complexity. These two terms are different. The task in the lower or higher order thinking skills can be in easy or difficult task level. Easy task is not always the same as lower order thinking skills task. Difficulty here refers to the effort on doing the task, while complexity refers to the kind of thinking used to answer the task.[23] The more difficult the task is, the more effort is needed. Whereas, the more complex the task, the more cognitive skill is used to do the task. Those problems also happened to the student teachers in this English Teacher Education Department of UIN Sunan Ampel Surabaya. As the preliminary research data, there are only 5 lesson plans from 10 randomly chosen lesson plans that provide task in higher order thinking skills in academic year 2015/2016. The task by the students teachers is analysed using Bloom's taxonomy to know whether their task facilitate higher order thinking skills or not. From those 5 lesson plans, all of the tasks are in the *create* level; ask the students to make, produce or do role-play. However, those tasks need further analysis to meet the criteria of constructing task in higher order thinking skills.

Based on the preliminary research phenomena, this study focuses on identifying the student teacher designed-task in facilitating higher-order thinking skills. As the importance of higher order thinking skills in education, the student teachers also need to be trained in providing task that can facilitate higher

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[22] Ramdhan Witarsa - Yuli Nurul Fauziah. "Kemampuan Guru Dalam Mengembangkan Keterampilan Berpikir Kreatif Pada Pembelajaran Sains SD". *Pendidikan Sains*. DP. Jilid 11, Bil.2/2011.
[23]

order thinking skills. This is also in line with two of three goals of English Teacher Education Department in UIN Sunan Ampel Surabaya that stated *"Creating professional, innovative and pious English teacher graduates"* and *"Creating creative and innovative contribution and development product of English Teacher Educastion Department".*[24] Being creative teacher may help the students by facilitating the activity and task in higher order thinking skills. As stated by Guilford, there are five characteristics of creative thinking; fluency, elaboration, flexibility, originality and redefinition.[25] In further discussion, fluency here means the ability to create and produce ideas. By having ability in creating new idea, the teachers will trained to think in higher order thinking as well.

In designing the task in higher order thinking skills, the task will be limited to the written test provided by the subject of this study. This is chosen by considering what the student teacher can do in their teaching practice in twenty minutes. The subject of this study is the 6th semester students who take Microteaching class or PPL 1. This class is conducted in the faculty that made their own friend become the students. Commonly, Microteaching class contains of 12 student teachers. Microteaching class become important in order to prepare the student teachers in real teaching practice; PPL 2. In this Microteaching class, the student teachers are asked to prepare the lesson plan and have short teaching performance for about 20 to 30 minutes.[26]

This study chose student teachers of Islamic State University of Sunan Ampel as the subject because this university is in ongoing process to be the World Class University after upgrading from Islamic State Institute since 2013. To be confirmed as the World Class University, there are three aspects that play as important factors. They are (a) a high concentration

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[24] Pendidikan Bahasa Inggris. *"Tentang PBI"*. (http://pbisa.wordpress.com/about/ , accessed on February 22nd, 2017)

[25] Ramdhan Witarsa - Yuli Nurul Fauziah. "Kemampuan Guru Dalam Mengembangkan Keterampilan Berpikir Kreatif Pada Pembelajaran Sains SD". *Pendidikan Sains.* DP. Jilid 11, Bil.2/2011.

[26] IAIN Sunan Ampel Surabaya. *Panduan Penyelenggaraan Pendidikan Strata Satu (S1) Tahun 2013*. (Surabaya: IAIN Sunan AMpel, 2013), 121.

of talent (faculty and students), (b) abundant resources and (c) favourable governance features.[27] So, to be World Class University, State Islamic University of Sunan Ampel needs to develop those criteria to compete in the global field.

In the aspect of a high concentration of talent focuses on the attendance of a critical mass of top students and well-known faculty.[28] It means that to achieve this aspect, the qualified professors, lecturers, stuffs and selected students play important role to build high quality faculty. The selected students are expected to do their best research and be outstanding outcomes from the faculty. To attract the most talented people in one of majors, the faculty needs to show their best outcomes to the public. This can be an evidence to attract people from many places.

To become the World Class University, Islamic State University of Sunan Ampel Surabaya also needs to show the evidence to the public. One of favourite faculties in Islamic State University of Sunan Ampel based on the enrolment, the Education And Teacher Training Faculty have to proof to public that the teacher outcomes are really qualified as the teacher candidate in the schools. In line with this issue, the English Teacher Education Department who benefits by the language they focus on, can be one of the factors to attract international students to study in the UIN Sunan Ampel Surabaya. As the research of Hsiou-Hsia Tai, the number of international students also help as the aspect of World Class University.[29]

Related to this research that focuses in assessment of higher order thinking skills, three studies are stated here as the previous studies. The first study is C.C Chinedu, Y. Kamin and Olabiyi O.S under the title *Strategies for improving Higher Order Thinking Skills in Teaching and Learning of Design and Technology Education.* Here, it shows that the use of concept, interferences, visualization, and scheme can be good strategy to

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[27] Jamil Salmi. *The Challenge of Establishing World-Class Universities.* (Washington, DC: The world bank, 2009), 7.

[28] *Ibid,* 20.

[29] Hsiou-Hsia Tai. *The Features of World-Class Universities.* (Taiwan: National Chiao Tung University)

improve their higher-order thinking skills.[30] This study focused on the strategy used by the teachers for improving higher-order thinking skills of students in Design and Technology Education.

The second study comes from Yee Mei Heong, Widad Binti Othman, Jailani Bin Md Yunos, Tee Tze Kiong, Razali Bin Hassan, and Mimi Mohaffyza Binti Mohamad *"The Level of Marzano Higher Order Thinking Skills among Technical Education Students"*. Yee Mei Heong and friends focus on the level of higher order thinking based on Marzano theory instead of using Bloom theory. This study is quantitative as the questionnaire used as the data collection method. Marzano identifies 13 kinds of higher order thinking skills; comparing, classifying, inducing, deducing, error analysis, constructing supporting, analyzing perspectives, abtracting, decision making, investigation, problem solving, experimental inquiry, and invention.[31] Further, the finding shows that the sample of the technical students have moderate level for 7 kinds of higher order thinking skills, and 6 others are in low level of higher order thinking skills.

As the last study, Nur Rochmah Laily and Asih Widi Wisudawati from Islamic State University of Sunan Kalijaga Yogyakarta conducted *"Analisis Soal Tipe Higher Order Thinking Skill (HOTS) Dalam Soal UN Kimia Rayon B Tahun 2012/2013"*. This study uses non-test and Focus Group Discussion (FGD) technique. The result of this study the characteristic of National Examination question in multiple choices is stimulus which the skills of critical and creative thinking still cannot be concluded.[32]

In sum, this study is conducted to make differences from the previous studies. This study focuses on analyzing the task

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[30] C.C Chinedu, et.al, "Strategies for improving Higher Order Thinking Skills in Teaching and Learning of Design and Technology Education". *Journal of Technical and Training.* Vol.7 No. 2. December 2015, 35.

[31] Yee Mei Heong, et.al.,*"The Level of Marzano Higher Order Thinking Skills among Technical Education Students". International Journal of Social Science and Humanity.* Vol. 1, No. 2, July 2011. 121.

[32] Nur Rochmah Laily - Asih Widi Wisudawati. *"Analisis Soal Tipe Higher Order Thinking Skill (HOTS) Dalam Soal UN Kimia Rayon B Tahun 2012/2013". Kaunia.* Vol.11 No.1, April 2015. 28

that is designed by the student teachers whether they can facilitate higher order thinking skills or not. In analyzing higher order thinking skills, Bloom's taxonomy revised version in 2001 is used in this study as the main theory. Additionally, it also continued on the principles used in constructing task in facilitating higher order thinking skills based on the Brookhart's theory.

B. Research Questions

In relation to the background of the study previously outlined above, the problem of the study can be formulated as this following question:

What is the cognitive domain level of student teacher designed-tasks in facilitating higher order thinking skills based on Bloom's taxonomy?

C. Objective of the Study

This research is aimed to find out:

To describe the level of cognitive domain level of student teacher designed-tasks in facilitating higher order thinking skills.

D. Significance of the Study

This result of the study is expected to give contribution for both teachers and the learners. In particular, this study can increase the awareness of the teachers and the students about how assessment in higher order thinking skills is expected.

For the student teachers, this study will increase their awareness of higher order thinking skills in designing task that is expected in 2013 curriculum. It will help them understand more about assessment of higher-order thinking that dealing with critical thinking, problem solving and creative thinking. This study also provide guidelines based on Susan M. Brookhart theory in constructing task in higher order thinking skills. After knowing it, the student teachers can be guided by this study in enhancing the knowledge and their ability in designing the task.

For the teachers or lecturers, this study can help and guide the student teachers to be more aware of the importance of higher order thinking skills in the task item.

Furthermore, this study can help the faculty to enhance the student teachers' quality in teaching before having the real teaching practice or PPL 2.

E. Scope and Limits of The Study

The scope of this study is the tasks that are designed by student teachers in their Microteaching class. The curriculum used in designing lesson plan is 13 curriculum that is specifically designed for Senior High School students. It is because Senior High School students are believed to have more background knowledge and developed cognitive skills rather than Junior High School students. K13 curriculum has four aspects; theology aspect, attitude aspect, knowledge aspect and skill aspect. Further, in assessing knowledge aspect, the techniques can be used are written test, oral test and assessment. Besides the knowledge aspect only, written test in reading and writing skills also become the focus of this study. It is because of the most possible test that can be done by the student teachers. In analysing the data, the theory of Bloom will be used as the main theory. In the theory of Bloom's taxonomy, higher order thinking skills will be in the level number 4, 5, and 6. In relation to the Bloom's taxonomy, the principles theory in constructing task in higher order thinking skills of Brookhart's will be used as well as the deeper analysis.

The limits of this study is student teachers in Microteaching class of State Islamic University of Sunan Ampel Surabaya in academic year 2017/2018. From nine classes provided with four different lecturer, the researcher will collect the data for only seven classes since the rest two classes do not use specific curriculum in designing the lesson plan.

F. Definition of Key Terms

In order to have the same idea and concept in this study, the researcher clarifies the terms used in this study, as the details are:

1. Higher Order Thinking Skills

Susan M. Brookhart explained that Higher-order thinking skills defined into three categories; (1) transfer, (2) critical, and (3) problem solving.[33]

In this study, higher order thinking skills is defined as the complex way of thinking as include critical thinking, creative thinking, and problem solving.

2. Bloom's Taxonomy

Bloom's taxonomy is a framework for categorizing educational objectives.[34]

In this study, Bloom's taxonomy defines as the category level of cognitive process in constructing the learning objective and assessment. The revised version of Bloom's taxonomy has six level; remember, understand, apply, analyze, evaluate and create. The last three level reflect the level of higher order thinking skills.

3. Assessment

Assessment is a systematic process of gathering information about what a student knows, is able to do, and is learning to do.[35]

In this study, assessment is defined as the way how the teacher collecting the data about the students' knowledge. The assessment can include measuring, judging, and testing.

4. Task

Task is a specific test item, topic, problem, question, prompt, or assignment.[36]

As defined in this study, task is the teacher' effort to gain the students' knowledge. It will be in the form of exercises or test, such as question, test item, and prompt.

5. Student Teacher Designed-Tasks

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[33] Susan M Brookhart. *How to Assess Higher-order thinking skills in your classroom.* (United States of America: ASCD Publication, 2010), 3.

[34] L. W. Anderson, et.al., *A Taxonomy For Learning, Teaching And Assessing.* (New York: Longman, 2001), 4.

[35] *Senior 1 to Senior 4 Spanish Language and Culture; Classroom Assessment.* 3.

[36] Mary J. Pitoniak, et.al., . *Guidelines for the Assessment of English Language Learners.* (USA: Educational Testing Service, 2009), 4.

In Cambridge dictionary, design is to make or draw plans for something.[37]

In this study, student teacher designed-tasks are tasks that are made and provided by the student teacher to assess the learning objectives. The tasks can be originally made or adapted with some modification by the student teachers.

6. Principles of Constructing Tasks

In Oxford dictionary, principle is an essential source or basis of something.[38]

Principles of constructing tasks here means some basises in constructing or designing tasks.

7. Microteaching

Teaching practice or PPL 1 done by 6th semester student of English Teacher Education Department with 20 minutes duration and the friends act as the students.

8. Student Teacher

Student Teacher is 6th semester of English Education Department students who take and join microteaching class.

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[37] Cambridge Dictionary. (https://dictionary.cambridge.org/dictionary/english/design, accessed on 27th February, 2017)

[38] Oxford Dictionary. (https://en.oxforddictionaries.com/definition/principle, accessed on 27th February, 2017)