

A Preliminary Study of Developing Discovery-Based Writing Assessments to Stimulate Students' Critical Thinking and Creativity

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Abstract---Composing and developing assessments that are suitable to the existing curriculum are the tasks for English teachers. However, most of them still did not develop the assessments that were appropriate to the 2013 curriculum. This study aimed to explain the existing writing assessments and the need for the students to stimulate their critical thinking and creativity. It was conducted at the tenth graders of MA Manbaul Quran. The method used in this research was research and development (R&D). To get the data, researcher used observation, questionnaire, and interview. The findings of the study showed that the English teacher did not understand the demand of 2013 curriculum that was to make students critical and creative. It meant that the teacher was not able to stimulate students critical thinking and creativity. The study also indicated that the English teacher did not develop discovery-based writing assessments. Further, the study showed that the teacher had to give pre-activities before she gave writing assessments for the students. The last, the study showed that the students got some difficulties to write English text. The difficulties of the students such as to translate English text, and to arrange, elaborate, and make a story. It meant that the students needed more activities that could help them ready to arrange, elaborate and make a story. Therefore, it was suggested for the teacher to adopt and develop discovery-based writing assessments to stimulate students' critical thinking and creativity.

Keywords—Critical thinking, creativity, writing assessments

I. INTRODUCTION

Recently, English teachers in Indonesia had been familiar with new curriculum that was called 2013 curriculum. It was arranged to complete the previous curriculum; *Kurikulum Tingkat Satuan Pendidikan*. There were differences between the newest and the previous curriculum. 2013 Curriculum gave chance for the students to develop their critical and logical thinking. The implementation of 2013 curriculum required students to be able to create their own product. Through thinking critically and creatively, students were hoped to make English text both in written and spoken.

To make students critical and creative was the task of the teachers. Therefore, teachers needed to understand deeply about the essence of the curriculum. Through comprehending the curriculum, teachers could implement the newest curriculum appropriately. However, to understand and

implement 2013 curriculum were uneasy. There were some demands that had to be achieved by the teachers. One of the demand in 2013 curriculum was teachers had to be able to make assessments that could stimulate students critical thinking and creativity. Teachers should be able to provide assessments that are able to reach high order thinking skills (HOT) of the students. Apparently, many teachers sometimes do not think about how to compose good and appropriate assessments for their students, as a result, their students are not able to develop high order thinking skills. Some teachers ignore the assessment of writing skill because of the time limitation. That is why in this paper the writer discusses the discovery based writing method the appropriate assessment of writing to fulfil the implementation of 2013 curriculum. It can be implemented in some meetings, and will be done in groups to discover something related to a chosen Basic Competence and topic, finally they will write the finding of their exploration.

The assessments were used to measure the success of the lessons that were based on the curriculum. Teachers used the assessments to know the progress of the students during and after the lesson. Assessment was used by the teacher to evaluate and measure students' performance and may be influenced by beliefs about power, authority and relationships in the classroom (Spiller: 2009). Teachers could make formal and informal assessments, summative and formative assessments. To measure the success of teaching and learning, teachers could use those kinds of assessments.

To make suitable assessments was uneasy. Teachers needed to consider some aspects such as the the difficulty of the material, students' ability, and the supported facilities. Further, assessments should reflect the result of teaching and learning. For the teachers, assessments were used to measure students' progress, but for the students, they could know their level of competencies and their own progress of learning especially in English. They were also able to measure their product.

Commonly, teachers used assessments to test or measure some skills or sub skills in English such as reading, writing, listening and speaking. Writing was one of the skill that had to be assessed by the teachers especially in 2013

curriculum. One of the demand of the newest curriculum was students were asked to make their own work in written form.

Writing was necessary for learning English. Writing was as the reflection of ideas of the students that were in the form of written material. To make students write English text suitably, teachers needed to consider some aspects: mechanical problems with the script of English; problems of accuracy of English grammar and lexis; problems of relating the style of writing to the demands of a particular situation; problems of developing ease and comfort in expressing what needs to be said (Broughton, et.al: 2003).

Students needed some activities to help them write English text. One of the activities that could help students write English text was discovery learning. Discovery learning refers to a form of curriculum in which students are exposed to particular questions and experiences in such a way that they discover for themselves the intended concepts (Hammer, 1997). Through discovery learning, students got chance to develop their critical thinking and creativity.

Before asking students to do the writing task, it is important to the teachers to make sure that their assessments are composed to make their students critical and creative in writing a text. To write English text, some of the students apparently got some difficulties. The difficulties of writing English text had been mentioned in some previous studies.

According to Anggrayani, Sofwan & Saleh (2015, also see Wuzaro: 2012, Mubarak: 2012, Suraya & Sofwan 2013, Detaprawati: 2013, Aininna: 2014, Noor, Saleh, & Rukmini: 2014, Anggraeni, Hartono, & Warsono: 2015, Arifiana: 2015, Hermasari & Mujiyanto: 2015, Kurniyasari: 2016, Amilia & Sisbiyanto: 2016, Shweeba & mujiyanto: 2017, Ernidawati & Sutopo: 2017, Wulandari: 2017), writing included the ability to express the students' opinions (Lida:2017) or taught clearly and effectively in written form. To write a text, some students got difficulties in finding ideas, providing second ideas, finding a topic idea, and low of knowledge in grammar and vocabulary (Pratiwi, Rukmini & Faridi: 2017). Sinaga, Suhandi, & Liliyasi (2015) stated that the difficulty of the students that were most frequently met was in the process of translating from outline into a writing product. Further, the students' problem in writing was also caused by the difficulty of expressing ideas in writing. It was caused by their insufficient knowledge of language components such as vocabulary and grammar (Deshpande: 2014, see also Pratiwi, Rukmini, & Faridi: 2017).

To solve the problem of students' writing, teachers needed to make and develop writing material, medium of learning, and appropriate strategy which suited with the students' need and interest. Furthermore, to achieve good writing competence, both students and teachers had to work together because writing was a process rather than product. As mentioned by Javed, Juan, & Nazli (2013), Writing skill played a pivotal role to improve students' exposure and competency for the purpose of communication and interaction. To minimize the problems that students faced during writing, Mirlohi, Ketabi, & Roustaei (2012) studied writing instruction that could make difference

toward students performance in writing. Good instruction could help learners to cope students' problem in writing.

Another previous studies related to discovery learning. In'am and Hajar (2017) stated that discovery learning in scientific approach was good to improve the ability of the students in learning geometry. They said that teachers should create lesson that is appropriate to the situation, condition and delivered material. To reach the objectives of learning, teacher needed to prepare his learning activity carefully and appropriately. Furthermore, discovery learning is more effective than conventional learning and it improves the ability of students (Bajah & Asim, 2002).

From Astuti's study (2009), it could be inferred that the development of curriculum still needed teacher who was able to implement the curriculum appropriately. If the teachers were not ready and did not have sufficient knowledge in the implementation of curriculum, the result of the teaching process could not achieve the goal of the education. Sundayana (2015) found that some of the teachers were not ready to implement 2013 curriculum.

The last previous study related to critical thinking and creativity. Kargar, Ajilchi, Goreyshi, & Noohi (2013) observed that learning thinking skills could significantly improve creative and critical thinking skills. They also found that creativity and critical thinking are possible to be improved.

Most of the previous studies that related to writing focused on improving students ability to write English text, and others focused on the students' errors in writing English text. For the previous studies that discussed discovery learning, those studies focused on the implementation of discovery learning to explain the effectiveness of this method for teaching students in the class. From those previous studies, the researcher did not find that the studies told about the development of discovery-based writing assessments to stimulate students' critical thinking and creativity.

Taking into consideration the research gap discussed earlier, the writer did research that focused on the preliminary study of developing discovery based writing assessments.

II. METHODS

This study was the part of research and development (R & D). Based on Borg and Gall (1983: 775) design, the researcher adopted and adjusted the steps of Research and Development based on the research's need. Actually, there were 10 steps to conduct R and D, but the researcher adjusted the steps into 8 stages: collecting information, need analysis, developing writing assessment, expert validation, main product revision, try out (field testing), doing second revision, producing final product. However, this study only focused on the preliminary activities; collecting information and need analysis. Therefore, this study only explained the usual assessments made by the English teacher and the need for the students to be critical and creative in writing English text.

To get the data, researcher used questionnaires, interview, and observation. The data were in the form of qualitative data. The

qualitative data was gathered through observation, interview, and questionnaire.

III. FINDINGS AND DISCUSSIONS

In this part, researcher presented the findings of the preliminary study of developing discovery-based writing assessments to stimulate students' critical thinking and creativity.

ASSESSMENTS OF THE STUDENTS' WRITING

The first way to get the data of the students' writing, researcher observed some elements that related to English teaching in MA Manbaul Quran. The observation showed the common activity in the class, the method used in the class, the existing writing assessment, and all of the teacher's preparation before coming to the class. Firstly, before researcher came into the class to watch classroom activities, researcher observed the existing documents that were made by the teacher. When the researcher asked the documents from the teacher, she just gave the researcher a compact disc that covered the core and the basic competencies, lesson plan, syllabus, and media for teaching and learning. Honestly, the teacher said that she copied the documents from an instructor of 2013 curriculum after she joined curriculum training. The documents showed that the teacher had planned to use discovery learning activities in her most activities in the class. There were six stages of discovery learning that were written in the compact disc. Those stages were stimulation, problem statement, data collection, processing the data, verification and generalisation. Beside of making lesson plan, the teacher also had not developed the syllabus using her own observation, experience and knowledge. To support the process of teaching and learning, she used some media such as pictures and video.

After observing the documents, researcher observed classroom activities. From his observation, researcher found some useful information. It showed that the English teacher used discovery learning to teach the students. The teacher apparently had implemented discovery learning but she got difficulty to help the students infer the knowledge from the activity during the class. The teacher used discovery learning but she did not help students to do the steps of discovery learning. The researcher saw that the teacher also gave writing assessment for the students. It was separated from the activity in the class, it was given after discovery learning activity. She gave writing assessments conventionally by ordering the students to make text or short essay, she did not use any treatment to help the students write their text or essay.

To support the data from the observation, researcher held interview and gave questionnaire toward English teacher and students of MA Manbaul Quran. The result of the interview and giving questionnaire showed that the teacher had known higher order thinking skills. The teacher had implemented the concept of HOTS in the writing assessments. She said that using HOTS in writing assessments helped students to be critical and creative in devoting their ideas. However, when researcher asked her to give him examples of

HOTS questions, she just gave him the examples of low order thinking questions. Further, she explained that she had implemented discovery learning activities during the class. From her implementation of discovery learning activities, she found that it had some strengths and weaknesses. The strength of discovery learning was able to make students critical and creative in writing a text whereas the weakness of discovery learning was the difficulty to infer the conclusion. Although she knew the strength and weakness of discovery learning, she did not implement discovery learning appropriately. When she wanted to give writing assessments, she just gave the instruction to make an essay or a text without any previous activities that helped students to devote their ideas. After having interview and sharing the questionnaire, the researcher knew that the students got difficulties to devote their ideas in English. They seemed to be confused to translate the text into English. As a result, they were just busy with translating and scary to devote their ideas into a good writing. Beside of getting difficulties to translate the text, students also got difficulty to arrange, elaborate, and make a story. Finally, their result of writing assessments did not reflect creativity and critical thinking.

Further, the observation also indicated that the English teacher still did not understand the concept of high order thinking assessments. It meant that the teacher did not understand the concept of 2013 curriculum and was not ready to implement 2013 curriculum. The result of the observation was in line with the previous study that was done by Sundayana (2015). He found that some of the teachers were not ready to implement 2013 curriculum. Astuti (2009) added that the development of curriculum needed teacher who was ready to implement the curriculum. This present study strengthen the previous result (Sundayana, 2015; Astuti, 2009) that most of the English teachers were not ready to implement 2013 curriculum. As a result, the goals of the curriculum that was to make students critical and creative could not be achieved.

THE FULFILLMENT OF THE STUDENTS' NEED TO STIMULATE THEIR CRITICAL THINKING AND CREATIVITY

In this stage, researcher analyzed the need of the students after researcher collected the information from the first stage. The information gathered by the researcher was important to support him in making and developing the product.

After having interview and sharing the questionnaire, the researcher knew that the students got difficulties to devote their ideas in English. They seemed to be confused to translate the text into English. As a result, they were just busy with translating and scary to devote their ideas into a good writing. Beside of getting difficulties to translate the text, students also got difficulty to arrange, elaborate, and make a story. Finally, their result of writing assessments did not reflect creativity and critical thinking.

Based on the analysis, researcher assumed that to make students critical and creative in writing, they needed some activities that could help them ready to write English

text. Below was the list of the activities that were needed by the students to prepare them in writing:

- 1) Students needed to learn how to identify and understand the purpose, generic structures and the linguistic features of a text.
- 2) Students needed to learn, understand and explain English tenses such as simple past tense.
- 3) Students needed to understand, identify and elaborate main ideas into a good text.
- 4) Students needed to differentiate and use the purpose, generic structures and the linguistic features of English text.
- 5) Students needed to have exercise in writing simple past tense.
- 6) Students needed to have practice in writing paragraph.
- 7) Students needed to have practice in arranging English text.
- 8) Students needed to have practice in revising English text.
- 9) Students needed to learn the mechanic of writing in English text.
- 10) Students needed to have practice in writing simple English text.

The finding of need analysis was in accordance to Shweba and Mujiyanto (2017), sometimes students made errors in spelling, punctuation marks, and capitalization in writing English text. It meant that teacher had to teach writing mechanic for the students during the process of teaching and learning. Furthermore, the need analysis also showed that teachers had to teach the content and organization of English text. Suraya and Sofwan (2013) also stated the importance of teaching content and organization of English text. It was important because through learning content and organization, students had opportunity to prepare the draft for writing English text.

To fulfill the students' need in critical thinking and creativity, students needed the activities that could help them cope their problem that related to writing mechanics, vocabulary and structures. The finding of the need analysis was in line with the previous studies that were done by some previous researchers such as Pratiwi, Rukmini & Faridi (2017), Sinaga, Suhandi, & Liliyasi (2015), and Deshpande (2014). They also found that students got difficulties in finding ideas, providing second ideas, finding a topic idea, low of knowledge in grammar and vocabulary, and translating from outline into a writing product. Further, the students' problem in writing was also caused by the difficulty of expressing ideas in writing. It was caused by their insufficient knowledge of language components such as vocabulary and grammar.

CONCLUSION AND SUGGESTION

This study focuses on the preliminary study of developing discovery based writing assessments to stimulate students' critical thinking and creativity. The findings indicated that the English teacher of MA Manbaul Quran used discovery learning activity to teach the students. Although the teacher used discovery learning, she was not able to stimulate students critical thinking and creativity because she was not able to guide the students inferring the conclusion from the

activities in the class. The findings also showed the fulfillment of the students' need to stimulate their critical thinking and creativity. Based on the results of observation and need analysis, the needs of the assessments had not been fulfilled. Further, students needed more activities that could help them stimulate their critical thinking and creativity.

The observation also showed that the English teacher did not use her own assessments. As a result, the teacher still did not develop assessments that were suitable for the implementation of 2013 curriculum. Since, the teacher did not understand the demand of 2013 curriculum, the assessments were not able to stimulate students' critical thinking and creativity.

Moreover, it was suggested for the English teacher to be able to develop assessments especially writing assessments that stimulate critical thinking and creativity of the students. It was important because the 2013 curriculum asked teacher to guide the students devoting their ideas both in spoken and in written form.

REFERENCES

- [1] Aininna, N. (2014). The benefits of using dialogue journal writing for improving students' writing of personal letter. *Journal of English Language Teaching*, 3(1), 10-21.
- [2] Anggraeni, C. W., Hartono, R., & Warsono. (2015). The realization of experiential meanings in students' writing recounts. *English Education Journal*, 5(1), 1-6.
- [3] Anggrayani, M., Sofwan, A., & Saleh, M. (2015). Improving students' organizing ideas in writing analytical exposition text with mind mapping technique. *English Education Journal*, 5(1), 1-5.
- [4] Ardianti, T. M., & Bharati, D. A. L. (2016). Students' participation in learning argumentative writing through writing workshop. *Language circle Journal of Language and Literature*, 11(1), 67-79.
- [5] Arifiana, C. (2015). Improving students' skill in writing recount text by using peer review technique. *Journal of English Language Teaching*, 4(1), 1-8.
- [6] Astuti, P. (2009). A needs analysis in developing a writing curriculum for efl education students: a case study at the department of english education of semarang state university. *Language Circle Journal of Language and Literature*, IV(1), 30-40.
- [7] Bajah, S.T & Asim, A.E. (2002). Construction and science learning experimental evidence in a nigerian setting. *World Council for Curriculum and Instruction (WCCI) Nigeria*. 3(1), 105-114.
- [8] Broughton, G. et.al. (2003). *Teaching English as a Foreign Language*. New York: Taylor & Francis e-Library.
- [9] Deshpande, S. (2014). Teaching writing skills in English: involvement of students in the assessment and correction of their own errors. *International Journal of English Language Teaching*, 3(1), 68-73.
- [10] Detapratwi, R. (2013). The impact of team pair solo technique and round robin technique on students' ability in writing descriptive text. *Journal of English Language Teaching*, 2(2), 1-8.
- [11] In'am, A., & Hajar, S. (2017). Learning geometry through discovery learning using a scientific approach. *Malang: International Journal of Instruction*, 10(1), 55-70.
- [12] Kargar, F. R., Ajilchi, B., Goreyshi, M. K., & Noohi, S. (2013). Effect of Creative and Critical Thinking Skills Teaching on Identity Styles and General Health in Adolescents. *Procedia-Social and Behavioral Sciences*, 84, 464-469.
- [13] Kurniyasari, P. D. A. (2016). The effectiveness of journalist question technique to improve students' writing skill in narrative text. *Journal of English Language Teaching*, 5(1), 1-6.
- [14] Lida, A. (2017). Expressing voice in a foreign language: multiwriting haiku pedagogy in the efl context. *TEFLIN Journal*, 28(2), 260-276.

- [15] Mubarak, H. (2012). The use of peer feedback strategy to motivate students in narrative text writing. *English Education Journal*, 2 (2), 163-168.
- [16] Noor, A. Q., Saleh, M., & Rukmini, D. (2014). Developing reading and writing skill of the x aph 2 students at the odd semester in the academic year of 2014/2015 for the learning material of expressing intention by using picture story and picture for writing story using raft method. *The Journal of Educational Development*, 2(2), 94-101.
- [17] Pratiwi, Y. E., Rukmini, D., & Faridi, A. (2017). The linguistic problems of students' competence in writing business letters. *Language circle Journal of Language and Literature*, 11(2), 117-126.
- [18] Shweba, A. A. A., & Mujiyanto, Y. (2017). Errors of spelling, capitalization, and punctuation marks in writing encountered by first year college students in Al-Merghib University Libya. *English Education Journal*, 7(2), 92-102.
- [19] Sinaga, P., Suhandi, A., & Liliyasi. (2015). The effectiveness of scaffolding design in training writing skills physics teaching materials. *International Journal of Instruction*, 8(1), 20-34.
- [20] Spiller, D. (2009). *Principles of Assessments*. The University of Waikato.
- [21] Sundayana. (2015). Readiness and competence of senior high school English teachers to implement curriculum 2013. *Indonesian Journal of Applied Linguistics*, 5(1), 29-36.
- [22] Suraya, F., & Sofwan, A. (2013). Enhancing students' content and organization of written texts through cooperative learning activities. *English Education Journal*, 3 (1), 1-5.
- [23] Wachyu, M. I., & Rukmini, D. (2015). The effectiveness of project based learning and problem based learning for teaching biography text writing to highly and lowly motivated students. *Language circle Journal of Language and Literature*, 10(1), 61-71.
- [24] Wuzaro, I. S. (2012). Improving narrative text writing skill through dictation towards auditory and visual learners. *English Education Journal*, 2(2), 112-118.