CHAPTER I

INTRODUCTION

This chapter discusses the area of the study that will be covered in some headings (1) research background (2) research questions (3) Objectives of the study (4) scope and limitation of the study (5) significance of the study (6) definition of the key terms.

A. Research Background

During the period, the development of technology was happened significantly. Since the technology was promoted in education, technology takes a role in education gradually. Information technology has become an inevitable part of education.[1] 40 % of undergraduate students in Michigan Tech satisfied with information technology.[2] In another research, three out of four undergraduate students agree or strongly agree that technology helps them achieve their academic outcomes (U.S. 76%, Canada 75%, other countries 72%).[3] With this fact, undergraduate students cannot be separated from technology. Chandrasekar also said that technology advancement and innovation in computer hardware, software and communication technologies have enabled more universities and

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[1] Latha R. Candrasekar, *The Impact of Collaboration Tools on Student Engagement*. Paper presented as part of her Masters Program at Memorial University, 2009
[2] Walter W. Milligan. *Information Technology at Michigan Tech; 2015 Survey Result by Walter W. Milligan*. June 2015
[3] Eden Dahlstrom, JD Walker & Charles Dziuban. *ECAR Study of Undergraduate Students and Information Technology.* 2013

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schools to conduct online programs and the number is increasing rapidly.[4] Over 3.9 million students were taking at least one online course during the Fall 2007 and over twenty percent of all U.S. higher education students were taking at least one online course in the Fall of 2007.[5] In the other word, the technology has deep influence in education by developing online programs.

In developing process of technology, many software, applications and programs have been provided by technology in education. Terms that are commonly used include e-learning, internet learning, distributed learning, networked learning, tele-learning, virtual learning, computer-assisted learning, Web-based learning, and distance learning.[6] It can be said that the technology take important role in education by providing many programs for supporting education.

With the spreading of the technology in education, it can make the students draw their selves in using technology with the sophisticated of technology in education. When the students show their interest in learning by doing more activities, it can be said as students' engagement.[7] According to Reeve that cite from Wellborn defined that students' engagement itself refers to

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[4] Latha R. Candrasekar, *The Impact of Collaboration Tools on Student Engagement*. Paper presented as part of her Masters Program at Memorial University, 2009

[5] Ibid,.

[6] Mohamed, Ally. "Theory and Practice of Online Learning*": Foundation of Educational theory from online learning.* Athabasca university. p 4

[7] Fredricks, J. A., Blumfeld, P. C., & Paris, A. H. "School engagement: Potential of the concept, state of the evidence." *Review of Educational Research, 74*(1), 59-109.2004

the extent of a student's active involvement in a learning activity.[8] Students are engaged when they are attracted to their work, persist in despite challenges and obstacles, and take visible delight in accomplishing their work. According to Chris, engagement is being widely recognized as critical to the learning process.[9] Students who are engaged in learning process will show their interested in learning such as, have critical thinking in learning process. Chris also said that engagement has been brought to centre stage in education.[10]

According to Fredricks, Blumfeld and Paris, there are three distinct types of engagement: behavioral engagement, cognitive engagement and emotional engagement.[11] Behavioral engagement refers to students' participation in learning and classroom activities.[12] The behavioral engagement can be showed in positive conduct, effort, and participation of students. Emotional or affective engagement refers to the relationships between students and their teachers, classmates and school.[13] Emotional engagement includes: affective reactions in the classroom, such as interest, happiness; affective reactions to the teacher. The last is cognitive engagement. Cognitive engagement can be defined as psychological investment

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[8] Johnmarshall Reeve. *A Self-determination Theory Perspective on Students Engagement*. 2012. p. 149-172.

[9] Chris Reading. *Recognising and Measuring Engagement in ICT- Rich Learning Environments.* Vol 1. 2008 p. 3

[10] Ibid,.

[11] Fredricks, J. A., Blumfeld, P. C., & Paris, A. H. "School engagement: Potential of the concept, state of the evidence." *Review of Educational Research, 74*(1),2004. P.59-109

[12] Ibid,.

[13] Ibid,.

in learning.[14] They try to learn what school offers. It can be inferred from the way they complete academic tasks.[15] It is cover the amount of time the students spend and the intensity of students' concentration.

According to Smiley and Anderson, cognitive engagement is an important construct to measure within the context of assessment practice.[16] Besides that, the construct of cognitive engagement can be talked about in a myriad of ways. According to Appleton et al, there are several definitions of cognitive engagement and were able to classify the definitions into eight types: engagement, engagement in schoolwork, academic engagement, school engagement, student engagement, student engagement in academic work, student engagement in/with school, and participation identification.[17] With those variant definitions of engagement, the researcher can know the research object that researcher wants to observe. It is students' engagement in academic work, because the researcher observes an essay writing of students in CALL 2 course. Essay is one of the academic works.[18] The essay challenges the students to think critically, identify issues that allow the students to explore the question (analyze), consider the question from a range of different perspectives (critique), and construct an

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[14] Ibid,.

[15] Newman, F. *Students Engagement and High School Reform*. Teachers college Press

[16] Whitney, Smiley & Robin, Anderson. Measuring students cognitive engagement on assessment test: *a confirmatory factor analysis of the short form of the cognitive engagement scale*. Vol 6. Summer 2011

[17] Appleton, J. J., Christenson, S. L., & Furlong, M. J. (2008). Student engagement with school: *Critical conceptual and methodological issues of the construct.* Psychology in the Schools, 45, 369-386.

[18] H. Douglas Brown. *Language Assessment Principles and Classroom Practices*. New York. Pearson Education.p. 219

academically credible argument (evaluate).[19] When the students write an essay, they learn to express their self in a more logical way and develop their writing skills.[20] The journal of Latha R. Candra Sekar observes the impact of collaboration tool on students' engagement which observes all the types of engagement; behavioral, emotional, and cognitive engagement.[21] But, In this research the researcher only focus on cognitive engagement.

When the students engage their selves and use their higher order thinking when do the task, it can be categorized as cognitive engagement. [22] Chris said that the indicator of cognitive engagement is higher-order thinking.[23] According to King et all, defined that critical thinking as a form of higher order thinking.[24] In the other word, higher order thinking is similar to critical thinking. Critical thinking can be showed in collaborative learning. Importantly, by engaging in discussion and taking responsibility for their learning, students are encouraged to become critical thinkers.[25] Thus, to encourage critical thinking of the students in learning, collaborative learning has been widely used in learning process.

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[19] Academic skills.anu.edu.au.Academic .*Skills and Learning Centre. Essay Writing Strategies for Undergraduates.* P. 1

[20] Lauren, Starkey. *How to Write Great Essays.* 2004. Learning Express: New York. P.83

[21] Latha, Chandrasekar.*The Impact of Collaboration Tools on Students Engagement*. Fall 2009

[22] Chris Reading. *Recognising and measuring engagement in ICT-rich learning environments*

[23] Ibid,.

[24] F.J King, Ph.D., Ludwika Goodson,M.S., Faranak Rohani, Ph.D. *Higher Order Thinking Skills. Assessment and Evaluation.* Educational Service Program.

[25] Melinda Dooly, Constructing knowledge together Constructing Knowledge Together (21-45). Extract from *Telecollaborative Language Learning. A guidebook to moderating intercultural collaboration online*. M. Dooly (ed.). (2008) Bern: Peter Lang

Collaborative learning gave the benefits for the students because collaborative learning allows the students to share their idea with the other students in a group. Collaborative learning in a small group should increase the quantity and quality of comprehensible input for students because the students could have an opportunity for individualized negotiation of meaning and also because the students could work in a more comfortable environment.[26]

According to Hershock and Manty that cite from Johnson and Smith, in a meta-analysis of over 150 studies representing diverse disciplines and class sizes, found that students demonstrated significantly greater learning gains, in terms of recall of basic knowledge and critical thinking, when collaborating than when working independently.[27] Online education and other types of technology-mediated education gives students experience of how IT can be used as support for interaction and collaboration.[28] With collaborative learning, students have high motivation to share the idea or solve the problem about the assignment when working collaboratively. With this condition, students can help each other when they get difficulties in doing assignment. One of the activities of collaborative online learning is collaborative writing.

Collaborative writing describes an activity where there is a shared and negotiated decision making process and a shared responsibility for the production

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[26] Jue Kyong Pae, Collaborative Writing Versus individual writing: Fluency, Accuracy, Complexity and Essay Score. *Multimedia-Assisted Language Learning, 14*(1)*,* 121-148. 2011

[27] Chad Hershock & Mika Lavaque Manty. Teaching in the Cloud: *Leveraging Online Collaboration Tools to Enhance Students Engagement.*2012

[28] Stefan Hrastinski, *Participating in Synhronous Online Education.* Thesis

of a single text.[29] Learning in collaborative setting is a social interaction involving a community of learners and teachers, where members acquire and share experience or knowledge.[30] Students also can learn from the other students and share their ideas during the process of collaborative writing. An innovation to do collaborative writing can improve the ability of students writing. Collaborative language learning has been claimed to be effective for language learning because it provides opportunities for interaction as well as a more comfortable environment for students.[31] Same as collaborative language learning, collaborative writing activity provides the opportunities for students to help the other students who get the difficulties when writing an academic writing.

In contrast, Chisholm said that there are several problems in collaborative writing. One of them is fairness. He said that in many groups, someone will work hard and someone else will not. We all know that was not fair.[32] It is difficult for monitoring the collaborative writing. Sometimes we find not all the students in a group work together. Some of them do the project and the other is not. Finally, the teacher did not know who the students do the group project and who are the students do not do the group project.

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[29] Neomy, Storch. *Collaborative Writing in L2 Classrooms.* 2013.p.3. UK: Channel View Publications.
[30] Omprapat Suwantarathip & Saovapa Wichadee,. "The Turkish Online Journal of Educational Technology : *The Effect of Collaborative Writing Activity Using Google Docs on Students' Writing Abilities.* 13(2).148-156.2014
[31] Donato, R. Collective scaffolding in second language learning. In J. Lantolf & G. Appel. (Eds.), *Vygotskian approaches to second language research. 1994.* (pp. 33-56). Norwood, NJ: Ablex.
[32] Richard M. Chisholm. *Coping with the Problems of Collaborative Writing*. 1988. MIT Press

Despite the collaborative writing is difficult for monitoring, many technology in education provide collaborative writing with online system that make the monitoring of collaborative writing easy. Engaging students in written communication in a variety of forms connects learners to the international world of information in every field via electronic communication such as internet and personal correspondence across the border.[33] Moreover, teacher can make collaboration the students in writing activity by using technology to enhance the students' participation in learning.

Many tools provide the facility for students to do collaborative writing, such as: Blogs, Collaborative Writing Documents and Wikis. There are many tools type in blog such as: Blogger, Edublogs, LiveJournal, WordPress,Mixed Link, and Ficly. Collaborative writing documents also have many tools, for example: Google Docs, j2e, ThinkFree, and Zoho. Tools that included in Wikis are: Google Sites, PBworks, Wikispaces, Zoho Wiki.[34] Google doc is the application from Google drive that provides the students to do collaborative online writing. Google Docs, an online word processing application, is a promising tool for collaborative learning.[35] Using Google Docs is very easy. One study reported that students found Google Docs more enjoyable to use when

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[33] Dorit Sasson, *Speaking and writing for English language learners: collaborative teaching for greater success with K-6* (2013), p. 53.

[34] http://www.intel.com/education/video/collaborate/resources/Online_Collaborative_Tools.pdf diakses pada tanggal 4 januari 2016

[35] Wenyi,Z.,Elizabeth, S,.Denise,P. International Journal of Teaching and Learning in Higher Education: *Google Docs in an Out-of-Class Collaborative Writing Activity* . 24 (3),2012. 359-375

compared to Microsoft Word.[36] Additionally, when the students do collaborative writing in Google Docs, automatically they know who students edit the paragraph or essay, add new ideas, do not do anything, because every student has different color to show their identity in Google Docs. With this condition, it can be main solution to make the students work together within the group.

Besides that, Google Docs provides data about the progress of writing. This data can be exploited to gain insights on how learners' collaborative activities, ideas and concepts are developed during the process of writing. The function of collaborative writing in Google Docs is to improve the quality of the written documents and the writing skills of learners involved.[37]

Based on the facts, the researcher chooses Google docs as a tool for collaborative writing activity, because this tool is easy to use and the layout of Google docs is similar to Microsoft Word layout. Besides that, the researcher has been practiced collaborative writing activity by using Google Docs.

Constructing idea together in collaborative writing is not easy. When write paragraph individually, we find the difficulties to make it coherence. With collaborative writing, the students have to combine the idea of their friends in one paragraph. They have to think critically to connect the sentences between sentences.

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[36] Ibid.

[37] Vilaythong,S. Kalina,Y. Peter, R. *Analysis of Collaborative Writing Processes Using Revision Maps and Probabilistic Topic Models.* 2013. Accessed on June, 23 2016.

Basically, cognitive engagement every class is different. Students who in higher classes actually have higher order thinking. Seventh semester students of UIN Sunan Ampel Surabaya had experiences in writing. It can be shown that they have finished the conditional writing courses. Besides that, they have used collaborative writing activity by using Google Docs. Therefore, the researcher chooses seventh semester students as the objects of this research.

The previous study which has been read by researcher is about the impact of collaboration tool on students' engagement which observes all the types of engagement; behavioral, emotional, and cognitive engagement by Latha R. Candrasekar. This research is totally different from previous study. This research only focuses on one type of students' engagement. It is cognitive engagement. Besides that, the other previous study that the researcher has been read is A Collaborative Writing Approach to Wikis: Design, Implementation, and Evaluation by Said Hadjerrouit and Engagement in Online Collaborative Learning: A Case Study Using a Web 2.0 Tool by Pao-Nan Chou and Ho-Huan Chen. Those researches use Wikis and Web 2.0 as a tool for collaborative writing. This research focuses on Google docs as a tool for collaborative writing activity.

The other previous study is Google Docs in an Out-of-Class Collaborative Writing Activity by Wenyi Zhou et al. Zhou's research observes about students' knowledge before and after use Google Docs in collaborative writing activity. Another previous study is The Effects of Collaborative Writing Activity Using

Google Docs on Students' Writing Abilities by Omprapat and Saovapa. Omprapat and Saovapa in their journal compare the collaborative writing by using Google docs and not use Google docs. Both of those researches are different from this research. My study is different from those researches in term analyzing process of object. My study observes the object without pre-test and post test after use the Google Docs.

The researcher also read the other previous study. The research from Lin Siew Fong entitled "Benefits of Collaborative Writing for ESL Advanced Diploma Students in the Production of Reports". My study is different from those researches in term the tools that used in doing collaborative writing. My study observes the benefits of collaborative writing by using Google Docs while the other observes the benefits of collaborative writing by using facebook.

Finally, the research purpose of this research is to analyze the cognitive engagement of students in doing collaborative writing essay using Google docs on seventh semester students of English Education Department at UIN Sunan Ampel Surabaya in academic year 2014-2015.

B. Research Questions

Based on the background of the study, the researcher analyzes the cognitive engagement of students in doing collaborative writing activity using

Google docs. The following problems need to be found out its answer through this particular research:

1. How is cognitive engagement of seventh semester students in collaborative writing essay using Google Docs of English Education Department at UIN Sunan Ampel Surabaya in Academic Year 2014-2015?

2. What are the collaborative writing benefits that seventh semester students got by using Google Docs of English Education Department at UIN Sunan Ampel Surabaya in Academic Year 2014-2015?

C. Objectives of the study

Related to the problems above, the researcher has formulated the major objective of this study. It is to describe the students' cognitive engagement in collaborative writing activity using Google Docs on seven semester students of English Education Department at UIN Sunan Ampel Surabaya in Academic year 2014-2015, as follow:

1. To find out the students cognitive engagement in collaborative writing essay using Google Docs on seventh semester students of English Education Department at UIN Sunan Ampel Surabaya in Academic year 2014-2015.

2. To find out the benefits of collaborative writing essay using Google Docs on seventh semester students of English Education Department at UIN Sunan Ampel Surabaya in Academic Year 2014-2015.

D. Scope and Limitation of the Study

The scopes of this research are students' cognitive engagement in collaborative writing activity. There are types of engagement; they are behavioral, emotional and cognitive. This research focuses on cognitive engagement. Cognitive engagement covers 3 aspects, they are: self-regulation, higher order thinking and instructional discourse. Self-regulation is the using of metacognitive strategies and evaluation cognition when accomplishing the task. Higher order thinking is same as critical thinking. Instructional discourse means high level evaluation (high level communication) such as debate and so on. This research only focuses on higher order thinking of the students on essay in collaborative writing.

Moreover, collaborative writing has two ways to do it; offline collaborative writing and online collaborative writing. This research focuses on online collaborative writing which uses Google Docs as a tool to do collaborative writing.

E. Significance of the Study

This research is expected to give some contribution:

1. To university that use technology in teaching and learning process. This result of this research is hoped to be source for university to develop online learning through Google Docs as the tool for applying online collaborative writing.

2. For the lecturer or the teacher who use technology especially Google Docs in teaching collaborative writing. This result of this research is hoped to give good impact for the lecturer in UIN Sunan Ampel Surabaya, because with knowing students engagement in collaborative writing using online tools especially Google Docs, the lecturer will be apply or create many collaborative writing activity for the students by using Google Docs.

3. To other researcher who are interested in conducting further research. This research is also hoped will be useful as a literature review for any further research which focuses on the similar topic with this research.

F. Definition of Key Terms

1. Cognitive Engagement

Cognitive engagement is a student's psychological investment in their own learning.[38] In this research, cognitive engagement is the way how the students have higher order thinking to do their project collaboratively in the lesson.

2. Collaborative Writing

Collaborative writing describes an activity where there is a shared and negotiated decision making process and a shared responsibility for the production of a single text.[39] In this research, collaborative writing is students' activity to construct essay together which includes sharing ideas together.

3. Google Docs

Google Docs, an online word processing application, is a promising tool for collaborative learning.[40] In this research Goggle Docs is a tool to do online collaborative writing essay which can be used every time and everywhere. With this tool, students do not need to meet directly to do collaborative writing essay.
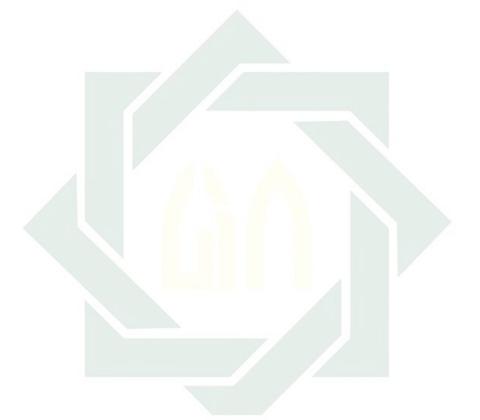
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[38] Fredricks, J. A., Blumfeld, P. C., & Paris, A. H. School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59-109.2004

[39] Neomy, Storch .*Collaborative Writing in L2 Classroom.*

[40] Wenyi,Z.,Elizabeth, S,.Denise,P. International Journal of Teaching and Learning in Higher Education: *Google Docs in an Out-of-Class Collaborative Writing Activity* . 24 (3),2012. 359-375

4. Benefits

Benefit is a good or helpful result or effect.[41] In this research, benefits are the good effects that got by the students when they did collaborative writing essay through Google Docs.

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[41] Meriam-Webster,Inc, *Benefit* (http://www.merriam-webster.com/dictionary/benefit), accessed on 17th of August 2016)