Developing Cooperative Integrated Reading and Composition (CIRC) Weblog Materials

Abstract—This study aims to develop cooperative integrated reading and composition (CIRC) weblogs materials for the second-grade students of MAN 1 Yogyakarta. The materials were developed through ADDIE stages. The qualitative data were analyzed using the descriptive analysis while the quantitative data were analyzed through the descriptive quantitative analysis which was converted to the qualitative data. The results show that the materials could provide more texts which were closely related to students’ life and more practices on grammar, vocabulary and generic structure of the text. However, weblogs materials should be more adaptive to practices on grammar, vocabulary and generic structure of the text. Hence, the materials were improved by adding more games, giving direct feedback, simplifying instructions, minimizing essay questions, and giving examples or demonstration before working with the assignments. Through the development of the products, the learning process became more conducive since there was an improvement in the students’ interaction and motivation.

Keywords—weblogs, reading, writing, learning materials

I. INTRODUCTION

In this 21st century, technology has become a pivotal element in social life since all senior high school students are familiar with it. They use ICT such as WhatsApp, Line, Facebook, or blog to communicate with others every day [1]. Moreover, by integrating ICT into the learning process, students will be more engaged and enthusiastic since it is closely related to their life.

English learning in some schools in Indonesia has not optimized the potential of technology to support the learning process. MAN 1 Yogyakarta is one of the examples. Based on the researcher’s observation, every teacher in this school including English teachers is encouraged to utilize the internet as the learning medium. The Internet can be a good learning source. Teachers can update their knowledge and skill by accessing the internet. Some hot spots areas are also available for teacher and students to access the internet through school computers or their laptops even handphone. However, the facilities have not been used optimally in English learning activities. The teacher prefers using a textbook to authentic texts obtained from the internet since they have limited time and ability in providing appropriate materials for students especially for specific skills such as listening, reading, writing, and speaking. Therefore, the material which is suitable for the students’ level, needs, and interest is very limited.

Due to the limited availability of the appropriate materials, students had low motivation and learning achievement. First, the students were not supported by the appropriate materials which can enhance their motivation to learn. Also, the students wanted to learn materials which were usually used in the real-life and useful for their future career based on their study program. The materials that they had studied did not completely fulfill their expectation. They learned common materials which were not specifically related to their daily life, future career, and environment. They also wanted to learn the materials using techniques such as laptop or handphone. Therefore, it is important to give them supplementary materials which meet students’ expectations. Secondly, they were lack of some reading and writing skills. The data showed that 69% of the respondents did not achieve the target in reading and 76% of the respondents did not achieve the target in writing since their scores were below 75% as the minimum standard. It means that most of them had low achievement in learning. It implied that the learning process that had been done previously was unsuccessful.

For those reasons, there should be a breakthrough in MAN 1 Yogyakarta to fulfill the demand for 21st-century learning. One of the technology that can be utilized is weblogs. To make the learning more meaningful, the weblogs can be used to support cooperative learning in the classroom.

Although it is accepted that the effectiveness of the use of weblogs technologies to support cooperative learning especially jigsaw activities, none have assessed the use of weblogs materials incorporating genre based approach and Cooperative Integrated Reading and Composition (CIRC). Through the use of genre based approach, the learning ensures students to have good English proficiency. Meanwhile, CIRC enhances students’ attitudes competencies. Therefore, their attitude and proficiency levels can be developed.

Moreover, each stage of CIRC incorporates the use of the weblogs which can bring advantages for students especially in building interaction and motivation. A.R. Mompean [2] stated that weblog permits the development of meaningful interactions through the messages and the comments posted in reaction to the messages, not only for the teacher but also...
for the other person who visited the weblog. Moreover, it can encourage students who do not contribute verbally in

Here, the researcher focused on the development of the media and the materials based on the following problem “What kinds of CIRC weblog materials are relevant to students’ need?” The objective of the study is to know the characteristics of CIRC weblog materials which are relevant to students’ need.

There are some terms related to the title of this study, i.e. CIRC and weblogs materials. First, Cooperative Integrated Reading and Writing (CIRC) is one of the cooperative learning strategies incorporated the use of group reading, direct instruction reading, and language arts activity. There, the students are encouraged to work in a group and individually. This strategy facilitates students to enhance their abilities through some procedures i.e. reading group, story-related activity, story retell activity, vocabulary, and steps of writing from the drafting, writing, and editing. Second, weblog materials are materials which are accessed through the internet. The materials are interactive and attractive since the students can give any comment, and practice their reading and writing in the space provided on the website. The materials are based on the students’ need, interest, and level of proficiency. The audiovisual materials are also provided to attract students’ attention.

II. LITERATURE REVIEW

A. Reading Skills

There are two skills as the focus in developing the weblogs learning materials, i.e. reading and writing. Reading as the first main skill has been transformed into a more modern way due to the existence of technology such as the internet in this 21st era. It is not only about text and the reader but also pictures, sound, video, and electronic text. The new kind of text which is accessed online demands every reader to start learning and get used to it [4]. It means that students who learn English using relevant and interesting content will involve in meaningful communication. For example, the materials from the internet are flexible and attractive. They can be accessed inside or outside the class. They can provide various texts using some presentations such as video, animation, and sounds. Thus, students are more motivated in learning and can make it into a more effective and enjoyable atmosphere.

Furthermore, the activity of online reading is believed to create a class to be more enjoyable. H.R. Park, and D. Kim [4] stated that it can transform the reading activities to be more attractive. Also, learners will be more motivated and active while reading. Therefore, they have less hesitancy while reading meaning that they have better skills in comprehending the materials. Moreover, H.R. Park, and D. Kim [4] stated that students frequently practice higher-order thinking skills while accessing online materials. They work together to compare, contrast, or synthesize online information.

As a macro skill, reading has several micro-skills which should be considered by the reader to improve the skills. J.C. Alderson [5] mentioned that a reader should pay more attention to the meaning, vocabulary, implicit and explicit information, value behind the communication, sentences connection, text cohesion, main idea and topic of the text. Those efforts will help her to understand the text. Therefore, all the ways of reading whether online or offline reading have the same purpose which is developing the readers’ micro-skills. The teacher and the learners should pay more focus on micro-skills development to improve the readers’ capability in reading.

B. Writing Skills

The other main skill in weblogs learning materials is writing which was defined in many ways. According to M. Spratt, A. Pulverness, and M. Williams [6], this includes as a productive skill in which the writer needs to be active in making the outcomes of a language in term of written form. S.C. Weigle [7] also said that it is not only a personal product but also a social product. One text may relate to another relevant text which builds unity in the meaning thus it represents the social context. Moreover, some micro skills of writing determined the ability of a writer. Those are related to writing speed, the structure of the language, cohesion, coherence, the implicit and explicit meaning of the language, and others [8]. In summary, a writer is someone who communicates through the symbols in writing. The message is constructed based on the social context and it can be accepted clearly if it has good cohesion and coherence. Therefore, a good writer is the one who masters the micro-skills very well.

One of the approaches to learning reading and writing is a genre-based approach. It is one of the approaches which is employed in conducting curriculum 2013 which is text-based. Through this approach, students can develop the knowledge and skills to deal with spoken and written texts in a social context. It is based on three assumptions about language learning as said by S. Feez, and H.D.S Joyce [9] i.e. language is a social activity, learning occurs more effectively if teachers are explicit about what is expected of students, the process of learning language is a series of scaffold developmental steps which address different aspects of language. Moreover, S. Feez, and H.D.S Joyce [10] proposes a language learning program with three outcomes. First, students learn language meaning that students begin to interact with others in purposeful social activities. Second, students learn through language meaning that students begin to interpret and organize reality in terms of that language. Third, language students learn about language meaning that students develop a language to talk about language. Language learning is conducted simultaneously. Therefore, the reading ability will support writing ability.

C. CIRC Weblogs Materials

In learning English, a weblog can bring advantages for students especially in building interaction and motivation. Weblog permits the development of meaningful interactions through the messages and the comments posted in reaction to the messages, not only for the teacher but also for the other person who visited the weblog [2]. It means that the students can work in a group to create meaningful interaction and communication. The students can learn actively in some groups and they can collaborate and share their work. Therefore, they can create a supportive community to enhance their capacity in English.
Moreover, using weblogs as the learning media also bring advantages for the silent students. As stated by H.L. Hallman [3] that students who are usually silent can deliver their idea in the form of writing interaction. It means that, by expressing the idea in the weblog, the students are set to be the main center of learning and the teacher will be the facilitator who creates a conducive learning environment.

The main focus of the learning process is to enhance the students’ communication skills; therefore, the use of technology should suit the curriculum. The weblog designer and the curriculum planner should discuss the skills that the students need to master at that given time by using appropriate leaning strategies [10]. It means that the learning strategies determine the success of language learning. Here, the strategy is the combination of genre-based learning, cooperative learning and technology. By following the combination, the students will get the advantage of those three strategies.

Weblog materials are materials which are accessed through the internet. The materials are interactive and attractive since the students can give any comment, and practice their reading and writing in the space provided for the website. The materials are based on the students’ need, interest, and level of proficiency. The audiovisual materials are also provided to attract students’ attention.

Cooperative Integrated Reading and Writing (CIRC) weblog materials are materials which are presented through a specific website and can be accessed using the internet. The materials follow the instructional procedure of CIRC stressing on the development of reading and writing skills. There are some features and links to accommodate each procedure on the website.

One of the platforms used to present the CIRC Weblogs materials is Edublogs. It is a WordPress blogging platform designed especially for an educational community. Edublogs can be a constructive resource for educators to find any information related to their particular discipline or interests. As it is stated by the web developer, the weblog has some mission, i.e. facilitate discussion, replace paper newsletters, encourage students to blog, post videos podcasts and mission, i.e. facilitate discussion, replace paper newsletters.

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As it is stated by the web developer, the weblog has some mission, i.e. facilitate discussion, replace paper newsletters, encourage students to blog, post videos podcasts and presentation, create a class publication. Furthermore, it works with the ideas of a semi-autonomous learner and the “flipped classroom” for students to record their time to time performance and for the teacher to provide a meaningful resource. Therefore, edublogs can lessen students’ interdependency to the teacher and facilitate them to learn inside or outside the class. Moreover, the teacher still has an important role in guiding the students so that the students are still working on the right track.

III. METHODOLOGY

The study is categorized as an educational research and development (RandD) category. It developed CIRC weblogs materials for second-grade students of MAN 1 Yogyakarta which can be categorized as a product. The product was developed following ADDIE concept using specific procedures, i.e. analyze, design, develop, implement, and evaluate. The analysis stage was aimed at recognizing students’ need and interest, conducted through interview, observation, questionnaire and review of related literature. In the design stage, the processes of course grid development and weblog lay-outing were conducted following the genre-based approach. After that, the processes of writing the initial products and validating them by content and media experts were conducted in the development stage. In the implementation stage, the revision of the initial products was tried out using the action and research design with the second-grade students of MAN 1 Yogyakarta as the subjects. The data of the implementation were gathered from the field notes, interview, documents, and questionnaire. Those data were used to evaluate the products in the evaluation process.

The study was conducted from December 2014–June 2015 at MAN 1 Yogyakarta. It involved second-grade students in the academic year of 2014/2015. The school is located at Jalan C. Simanjuntak No.60 Yogyakarta. The school facilitates the members with some facilities including information and communication technology such as a computer, internet connection, e-learning website, hot spot area, and language laboratory. There are 28 students as the sample of the study. It also involved two experts to review the materials. Those are pedagogical materials expert and media expert who are from Yogyakarta States University.

The qualitative data were analyzed using the descriptive analysis while the quantitative data were analyzed through the descriptive quantitative analysis which was converted to the qualitative data.

IV. RESULT AND ANALYSIS

In the analyze phase, the researcher determined the problems which were urgent and important to the reading and writing learning process. The first problems were on the students’ motivation. They strived to learn new skills and improve their performance. The learning process did not accommodate their motivation in learning English.

The second problem was rooted in the students especially their abilities in reading and writing. Based on the questionnaire data, some factors were triggering the problems of reading and writing. 63% of the students said less comprehension of English structure and generic structure of the text had a contribution to reading and writing problems occurrence. Moreover, 41% of the students stated that they did not have enough time to practice English outside the class. 33% of the students said that they got difficulties in teacher instruction and explanation of the text. Therefore, the students needed more additional reading and writing materials especially about grammar and vocabulary which were accessible and clear. Also, students could practice wherever they were even at home.

The third main problem is the problem of materials. There was a gap between students’ preferences and realities. There were some students’ preferences concerning reading and writing wants and learning needs. In term of students’ want, the students preferred to learn about some topics related to their daily activity. Besides, they also wanted to learn about topics which were related to their study program. Moreover, 81% of the students stated that they prefer the internet to other media since it accommodated their learning styles, facilitated independent and cooperative learning, and helped students to access materials.
In summary, the primary need of the students was the demand for appropriate materials to improve students’ knowledge and skills of reading and writing. Furthermore, students wanted a kind of materials which was closely related to their life and delivered through an interesting medium such as weblog. They also wanted to conduct the learning using interesting activity such as group work.

The result of the analysis became a consideration for the design stage. After identifying the essential tasks required to achieve instructional goals, the researcher summarized them in a course grid to convey the general picture of the learning materials and activities. Thus, it shows how learning designs fit into the learning expectation and process.

The design of the weblogs materials incorporated the combination of genre based stages and CIRC.

![Fig. 1. CIRC Weblogs Materials in the Learning Process](image)

The materials were presented through weblogs and can be accessed using the internet. The design followed the instructional procedure of CIRC stressing on the development of reading and writing skills. There are some features and links to accommodate each procedure on the weblogs. Also, the development of Cooperative Integrated Reading and Writing (CIRC) which was combined with genre-based approach weblog materials for second-grade students of MAN 1 Yogyakarta was an arrangement of activities to strengthen the teaching and learning process since it incorporates the main principle of cooperative learning that is cooperation in each learning stage. The students worked individually, in pairs or teams. They worked together to achieve their group target. The teacher assessed students’ performance in every stage and gave reward to students who could do the tasks well. By doing this, the learning process became more engaging and motivating since each activity was based on cooperation. Every student motivated each other; they did the teamwork to make sure that every student had achieved the target of the learning process.

After considering the instructional design, the process continued to the development stage which is the material development phase based on the course grid. The course grid became guidance to develop the materials. It was done by writing the materials and then printing them as the rough draft. After developing the first draft, the researcher validated the materials. The validation covered two areas, i.e. website usability validation and pedagogical usability validation. The website usability validation was done by giving a questionnaire to the expert on the website. The questionnaire provided some indicators as the scoring focus, i.e. architecture and navigation, content, form and interaction, graphics, colour, typography, error tolerance, platform and implementation, layout and design. The first aspect is the architecture and navigation of weblogs. The expert gave general comment for the improvement of the weblogs. First, the developed media were appropriate to the web content development criteria. Second, the appearance was calm and user-friendly which was not tiring. He suggested making sure that the internet connection is good with at least 256 kbps due to the WordPress or sub word press accessed. In summary, based on the ICT expert validation, there was no significant revision on the blogs. The zoom adjustment and internet connection should be checked to make sure the blog clarity and effectiveness.

Aside ICT expert validation, the materials were examined by the expert of English education. The assessment was for the weblog pedagogical usability which covered six scoring focuses, i.e. instruction, content, tasks, learner variables, interaction, and evaluation. Those components measured the weblogs effectiveness related to the learning process. The result showed that the weblogs is appropriate to be used as the learning materials and can facilitate the learning process.

In the implementation stage, to improve the materials and to make the learning process more effective, the research team members made some adjustments to the materials. The first adjustment was about the instruction description. The research team members simplified the instruction and added an example for each learning task. Moreover, before doing the task, the students were given a trial or demo so that they comprehend the instruction. The second change of the material was about the changes of question format from open-ended to be close-ended. Previously, some questions used quizbean.com. The students got instant feedback after doing the multiple choices or true and false questions using WordPress. However, it was ineffective since the teacher should wait for all response from the students and then discuss them orally in the class discussion. Therefore, some of the students especially the fast learner students should wait for the class discussion which made the time inefficient. In the second cycle, the format of the questions was changed into close-ended type in which the students did multiple choices or true and false questions using quizbean.com. The students got instant feedback after doing the task. The feedback had already prepared by the teacher before the tasks. The students could read the explanation to understand the answers. These types of questions were proven to be effective to save time and to balance the pace.
of fast and slow learners. The students were more focus and independent in doing the task. As a result, they could follow the activity more smoothly.

In the evaluation stage, it was found that the weblog materials have fulfilled specific characteristics to be good material, i.e. the appropriate content of the materials, display or feature of the weblog, and functionality to support the learning process.

The first characteristic is the appropriate content of the materials. It can be seen from the completeness, comprehensibility, time which is up to date, suitability, and variety. Based on the students’ responses, all quality of aspects was improved from cycle 1 to cycle 2. It can be seen from the data that, there was an improvement in students’ responses who said very agree that the materials were better. Due to the revision of the materials, students could enjoy the weblogs much better. However, the materials should be more up to date, easier to understand, and complete to support the learning process.

In term of the features, students said that pictures, videos, and animations of the weblogs attracted them to learn and assisted them to comprehend the materials. There was an improvement from cycle 1 to cycle 2 on the students’ responses which stated strongly agree. It means that the students were more satisfied with the availability and usage of the features. In cycle 2, there were more pictures to comprehend the words and games animations which provided instant feedback to the students. Therefore the students could understand and enjoy materials better. However, some students were not satisfied with the features. It was because of some repetition which appeared on the content of the game which made it less challenging. Meanwhile, the use of the button of the web was also improved in cycle 2. Previously, students were difficult to send some materials because of some button slowly responded. The problems were solved by minimizing the use of edublogs forms and fixing the internet connection.

Moreover, the use of the various applications in weblogs such as quizlet, games, and video attracted the students to learn the materials. Those applications had transformed the paper-based activity in reading and writing to be online activities.

The next characteristic was the weblogs functionality in supporting the learning process, i.e. sustainability, advantageous, appropriateness, and motivation. The diagram of weblogs functionality described the response of the students.

Based on the response, the students agreed that they got knowledge and skill of reading and writing. The result is shown in the diagram of Students' Knowledge and Skill after Learning Process Using Weblogs.

![Weblog Functionality](image1)

![Students' Knowledge and Skill after Learning Using Weblogs](image2)
The other finding showed that the CIRC weblogs materials could facilitate students’ soft skill development.

![Weblogs Soft skill Development](image)

Based on the diagram, most of the students in cycle 1 and 2 agreed that the materials have developed their soft skills especially critical thinking, environment and social awareness, cooperation, and active learning. It was also supported by the observation which showed that students have more confidence in asking and answering questions while involving in the discussion. Moreover, students also have more awareness in environment and society by showing their commitment to preserving the environment and make their class clean. Students became more aware that good communication in society will improve the social awareness, cooperation, and active learning. It was also especially critical thinking, environment and social awareness.

2 agreed that the materials have developed their soft skills feature of the blog enriches interaction among students. In general, the commenting participants could comfortably express their opinion through weblog as sharing channels. In the study conducted by H.Y. Hsu [12] stating that introverted unconfident students to share their opinion. It confirmed the other findings showed that the CIRC weblogs facilitated meaningful interaction and enhance students’ motivation. It confirms the previous research done by A.R. Mompean [2] which stated that weblog permits the development of meaningful interactions through the messages and the comments posted in reaction to the messages, not only for the teacher but also for the other person who visited the weblog. In this research, students used their opportunities to post and accept comments. Therefore, they did not only interact in the classroom but also online space, i.e. weblog.

Besides, the weblog also became a medium for shy or unconfident students to share their opinion. It confirmed the study conducted by H.Y. Hsu [12] stating that introverted participants could comfortably express their opinion through weblog as sharing channels. In general, the commenting feature of the blog enriches interaction among students.

Moreover, the use of the various applications in weblogs such as Quizlet, games, and video attracted the students to learn the materials. Those applications had transformed the paper-based activity in reading and writing to be online activity. It is supported by the study conducted by E. Ortlieb, V. Wolfram, H.C. Earl, and D.M. Danielle [13] which stated that the concept of paper-based activity on reading and writing has been changed into diverse learning by using the web technology including weblogs. Audio, pictures and other texts can collaborate to make an enjoyable learning activity.

The result of the evaluation supported the previous research conducted by E. Ortlieb, V. Wolfram, H.C. Earl, and D.M. Danielle [13] that examined the use of collaborative blogging on third graders’ school-based expository writing. The results of the study revealed that weblogging supported classroom instruction in several ways as students were engaged and motivated to write, collaborated, improved their writing skills, and demonstrated a transfer of knowledge from the blogging project to other subject areas through a differentiated pedagogical approach.

The positive development of student’s characters after getting involved in the CIRC weblogs learning confirmed previous research conducted by P. Bennett [14] who said that students’ characters can be enhanced by implementing cooperative learning. It was proven that CIRC learning strategies can develop desirable character in school.

However, students’ need to be well adapted to the use of technology. Students who were not familiar with technology tend to have more time to adapt to it. Some of the included studies commented that generally, students were less IT competent than expected [11]. Simple instruction and demo are needed to be prepared before doing the exercises. The teacher still needed to supervise and help the students to operate the weblogs.

### V. CONCLUSION AND RECOMMENDATION

#### A. Conclusion

The CIRC weblog materials are relevant to students’ need CIRC. They could provide more texts which were closely related to students’ life and more practices on grammar, vocabulary, and generic structure of the text. The weblog materials have fulfilled specific characteristics to be good material, i.e. the appropriate content of the materials, display or feature of the weblog, and functionality in supporting the learning process. However, weblogs materials should be more adaptive to the learning process. Hence, the materials were improved by adding more games, giving direct feedback, simplifying instructions, minimizing essay questions, and giving examples or demonstration before working with the assignments. Through the development of the products, the learning process became more conducive since there was an improvement in the students’ interaction and motivation which supported them to improve their knowledge and skills of reading and writing.

#### B. Recommendation

There were some points to improve the quality and effective use of the products. First, the products need a stable internet connection. Therefore, a good internet connection using LAN or internet provider should be well.
maintained during the learning process. To anticipate the unstable internet connection, the product can be modified into offline media in which the students can access them without an internet connection. To make the learning process more attractive, there should be more variation in games and interactive items. The variation can be the questions and activities, to assist different levels of students, the materials should be varied for high and low-level students. So those, the students can understand and follow the materials.

REFERENCES