Jurnal Pendidikan Progresif

Webblog-Based Flipped Classroom: The Feasibility to Support 4C's in the Content and Language Integrated Learning (CLIL)

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Abstract: Weblog-Based Flipped Classroom: The Feasibility to Support 4C's in the Content and Language Integrated Learning (CLIL). **Objectives** of the study were to analyze the feasibility of using weblogs based flipped classroom learning and how feasible to support the development of 4Cs in CLIL. **Methods:** using qualitative case study method, the data was collected through observations, semi-structured interviews and questionnaire. The data analyzed descriptively and to ensure the validity of the qualitative data, triangulation technique was carried out by analyzing and comparing the results of interviews and questionnaires simultaneously. **Findings**: the findings show that the use of weblogs in flipped class design in CLIL classes is feasible and it also perceived positively to support the 4C's of CLIL. **Conclusion:** it is concludes that technology-based learning innovations have a big influence on the learning atmosphere and student learning motivation. Further research on how effective the use of weblog based flipped classroom developing the 4Cs in CLIL needs to be done to give contribution to the development of CLIL studies.

Keywords: CLIL, feasibility, flipped classroom, weblog.

To cite this article:

■ INTRODUCTION

Understanding of Content and Language Integrated Learning (CLIL), its importance and typical application in Indonesia is important to give an over view of how CLIL has specific characteristic of teaching and learning practices compared to other conventional education and how it was commonly practiced in certain country. Researching CLIL demands the understanding of how CLIL considered as an innovative approach in education and specifically in language teaching. The uniqueness is put on the dual focus of teaching practiced, both considering in content and language development. Furthermore it is also objected to develop students' motivation, foreign language performance or communication, cognition & critical thinking, and intercultural awareness (Eurydice, 2006). Considering its benefits, CLIL was widely used and spread out rapidly as a great educational approach in European and worldwide context.

Looking up to the history of CLIL, it was firstly launched in European countries by some educational practitioners in the middle of 1990s (Marsh & Lange, 2010). Lastly it was spread out rapidly outside of European countries including in Asian educational context. There are some justifications concerning of how CLIL popularly adapted. Whittaker et al. (2011) stated that CLIL considered as a main instructional technique to promote the development of second language or even foreign language learning. Unfortunately, CLIL has also biased with English-Medium of Instruction (EMI), Content Based

Instruction, even it also considered as immersion program. Further Whittaker et al. (2011) identified that its bias terminology was caused by those terminologies inferred the use of second or foreign language in the teaching and learning practices.

Considering the development of CLIL in Asian context especially in Indonesia, recently schools and universities tried to adapt CLIL principle in their education and its teaching practices. Some schools in elementary level served the teaching and learning using the target language (English). It widely stated as language across curriculum and it is inferred the initial implementation of CLIL (Puspitasari et al., 2016).

Commonly practices, some non-language subjects were taught using the target language as an instructional language in teaching and learning process. Certainly, some adjustments required to accommodate the curriculum. It is also required synergy to mix national curriculum and targeted curriculum programmed. Rachmayanti et al. (2015) proposed that in Indonesian context, these schools provide a particular type of class named by International Class Program or ICP. Specifically, in initial practices, bilingual education program was adopted.

Moreover, in Indonesian context, CLIL was practiced by interweaving the language in certain lesson (Fitriati, 2015). Dale & Tanner (2012) argued that the main objective to be gained in CLIL implementation that it was beneficial to increase students' motivation, developing cognition & promoting critical thinking, upgrading communication performance, provides additional language input and output and expected to develop intercultural awareness.

Furthermore, Dale & Tanner (2012) proposed that CLIL also significantly beneficial to upgrade the quality of both teachers and school itself. The beneficial expected including CLIL was able to encourage the innovations of schools' elements, giving a balance impulse for schools'

renewal and refection, increasing teachers' enthusiastic to develop the curriculum, create creative materials, and discuss students' learning progress. It is also beneficial for broaden an understanding of the dual focus of learning both content and the language. Specifically, CLIL benefits are not separated from the contribution of 4Cs framework (communication, cognition, culture, and content) as the hunch of CLIL (Coyle, 2013).

Safari & Fitriati (2016) identified that applying CLIL directly impacted on the role of teachers as the agent of change in their classroom, especially teachers' efforts to create different teaching and learning. Besides they have required to teaching non language subjects in target language, they also have to assess the two areas (content and English performance). Furthermore, Safari & Fitriati (2016) asserted that those abilities are all the part that teachers have to possess, such as mastering the content subject matter (professionally) and also the techniques to teach in CLIL (pedagogically).

Using CLIL approach consequently embedded the learning of target language (English) in all non-language teaching (Morton, 2018). The students are experienced the learning of language by using it. The teacher has a role for triggering the students uses English as habitual communication activities. Mariño (2014) stated that in CLIL classroom setting L2 or foreign language is used as a tool in the learning of a non-language subject in which both language and the subject have a joint role.

Currently, the development of the industrial revolution 4.0 and 5.0 has had a huge impact on human life, including on teaching and learning sector. Rohmah et al. (2019) stated that the speed of technological development in educational field positively affects the teachers to utilize the use of technology in the teaching process. That is why now a days, the teacher has a great challenge to start the changes in their classroom. Flipped-

classrooom is one of alternative that teacher can adapt to have a great changes for the students.

Flipped classroom is a development of learning approach that turns or flipped the teaching and learning that are used to be carried out in the classroom become the things that have to be done at home or anyplace outside the class wall (Rohmah, 2019). Furthermore, flipped classroom reverse the procedure of conventional teaching where teaching and learning activities used to be done in the classroom become a primary learning activities done at home or outside of the classroom and in another side, students' learning activities that used to be done at home become the main learning activities in the classroom (Joanne & Lateef, 2014).

Furthermore, Joanne & Lateef (2014) mentioned the benefits of implementing flipped classroom, including the students getting more independent in learning. They are triggered to do self-learning at home as directed by the teacher deals with the things that need to be done before flipping the class. It also identified able to increase students' quality and interest in learning. Flipped classroom provides flexible learning time especially learning activities that must be done at home. By providing videos, it is supports the accessibility to the materials repeatedly studied.

There is an application that commonly used as an aid in implementing flipped classroom is weblog. Joanne & Lateef (2014) mentions several advantages of weblogs, including: a) Weblogs provides more resource options than any other application; b) Weblogs are able to collecting any type of questions created by the teacher to facilitate the test or quizzes; c) weblog also facilitate the attendance system that teacher can use to record students attendance; d) weblog provides analytical system to check all of students' learning activities.

Pointing out of some discussion above, the current research focused to study of how feasible incorporating weblog-based flipped classroom in CLIL setting. Some previous studies deals with the implementation of flipped classroom were among (Baker, 2000; Bergmann & Sams, 2012a; Berret, 2012; Brame, 2013; and Bishop &Verleger, 2013). As pointed by Baker (2000) that by implementing flipped classroom, the students were motivated to study at home. Further, Berret (2012) argued that the students were easily to choose the materials they want to be reviewed in flipped classroom model.

It is interesting to know that there are a number of studies researching the implementation of weblog as an aid in to be used in the teaching were among (Embrey, 2002; Williams & Jacobs, 2004; Duffy & Bruns, 2006). Most of the studies focused on the benefit of weblog to be used as an aid in the conventional teaching and learning. There also many studies researching on CLIL, such as (Arham & Akrab, 2018; Porto, 2021; Izzah et al., 2018; Khoiriyah & Soeparto 2022; Sarip, 2019; Simbolon, 2020; Sumartana et al., 2019; Wijirahayu, 2019) which focused more on how CLIL can be implemented in the classroom, mostly indicated that the application of CLIL were vary depending on the research context and setting.

However, research which is conducted to explore how feasible weblog-based Flipped classroom in CLIL setting has never been conducted before. The current research aimed to explore the feasibility of incorporating weblog-based flipped classroom in CLIL and how feasible weblog based flipped classroom supports the development of 4Cs in CLIL class setting.

■ METHOD
Participants

The participants of this research were 5th grade (both teacher and students). 5th grade was chosen among other class since based on the result of preliminary study conducted (April 2023), only on the 5th grade more than 35% (10 meetings) the teaching of CLIL apply weblog

based flipped classroom. As required by the school and commonly practices of CLIL Indonesian context, there must be 2 teachers (called teacher and co-teacher) who responsible to handle the class. Both of the teachers have specific role in handling the class. That is why there were 2 teachers involved in this research with 24 students of 5th grade.

Research Design & Procedures

The current study employ qualitative case study research approach that aimed to explore the feasibility of weblog based flipped classroom in CLIL and how feasible it is supporting the development of 4Cs in CLIL context. Case study was employed since, the basis characteristic of case study is to catch phenomenon and cultivates the capacity for critical analysis, judgment, decision-making, and action (Patton, 2002). Moreover, Hamied (2017) argued that case study is a comprehensive and holistic investigation where the data gathered over a period of time according to the actual context.

The current research was carried out at one of Private Elementary School in Bojonegoro East Java, Indonesia. The school was selected since CLIL was applied as the teaching and learning approach especially 5th grade was chosen as the research site as how it was identified later in another part of this section. Specifically the study was carried out in 6 months (July - December) during 2023/2024 academic years.

The research starts by observing teacher's blog (online mode) to get the data of how the teachers presenting the materials through weblog in flipped class and also observing 10 meetings of 5th grade teachers and students (offline mode) specifically in mathematic teaching and learning. It is also to get the data of how students respond the teaching.

During observation, field notes were taken and validated by interviewing the teachers to confront the data taken from observations. Field

note is crucial to describe all aspects of the situation being observed, including what is seen, heard, and experienced on-site (Hamied, 2017). Furthermore, Hamied (2017) argued that direct observation in the case study allows the researchers to explore the phenomenon from different perspectives, evaluate the relation among all aspects, and experience the process in its actual context.

Distributing questionnaire to the students is important part to get students feeling towards the use of weblog based flipped classroom in relation to support students' 4 Cs in CLIL class. The students purposively chosen to be interviewed to confirm the data gathered through questionnaire especially on what obstacles students faced during the implementation of the learning approach. A series of data analysis was done to conclude the findings and writing the research report.

Instruments

In the current research, qualitative data of how is the feasibility of weblog based flipped classroom used in CLIL setting and how it was supports the 4Cs in CLIL classroom were gathered through some non-test instruments namely: online & offline observation through field notes, the transcription of semi structured interviews, and distributing questionnaires. Here, was the detail explanation of the instruments to collect the data:

Observation

Firstly, observation was conducted as one of technique to collect data. It was done online and offline modes. Online mode of observation conducted in order to get some data such as how the teachers presenting the materials in their blog, what kinds of materials uploaded in the blog, and the accessible of the blog. Offline observation conducted in 10 meetings during the teaching activities in the class to get the data of how the students responded during the teaching. Field

notes were taken both on two modes of observation to be confronted with the data taken from another technique followed.

Questionnaire

Another instrument to dig up and collect data was a questionnaire. Type of close-ended questions composed of five options following the Likert Scale was used and distributed to 24 students to capture students' perception and opinion in relation to the use of weblog based of flipped classroom supporting the development of 4Cs in CLIL. The questionnaire of 4Cs in CLIL was adapted from CLIL framework by Coyle (2013). There were 4 indicators (Content, Cognition, Culture, & Communication) with several 2-4 items to be responded by the students. In filling out the questionnaire, the students accompanied by the teachers to know which one of the question need further explanation. This method is important to get the valid data since they were on elementary level.

Semi-structured Interview

The data taken from observation & questionnaire were confronted by using semi structured interview. It is also important to explain unseen data or the reason of the teachers and students do and don't. Both teachers were interviewed to get detail data of how 4Cs of CLIL incorporated in the materials and the teaching practices through weblog based flipped classroom. The students purposively chosen as interviewee (7 out of 24 students) to get the data of how the students access the materials through weblog, the obstacles faced, perceptions and opinions of the learning through it and how the new method of teaching supports the development of 4Cs in CLIL.

Data Analysis

To guarantee the validity of the data yielded in the current study, triangulation was used in the form of source and technique triangulation. Patton (2002) argued that method of triangulation can be done by comparing and integrating data collection through some technique and source of data. In this case, the process of triangulation was conducted by confronting and analyzing the results of observation, questionnaire, and interview hand in hand. It also confronting the data gathered from the teacher and students.

In analyzing the data, after a series of data collection, the data was analyzed descriptively following the steps of theme analysis proposed by Creswell (2012). The steps of thematic analysis applied involves: *first*, how the researchers familiarize with the dataset gathered through re-read the data, it also transcribing the data and point for assigning initial codes; *second*, the process of coding to identify and refer to them easily; *third*, identify theme by collating together the results of the coding and generating process; *fourth*, the researchers reviewing the themes to see how well the themes support the coded data extracts. It also followed by organize the themes into a map, initial theoretical framework; *fifth*, define and names the theme precisely related to the research question; *sixth*, begin to develop the final report, extracts the original data to illustrate the findings. There also quantitative data yielded from questionnaire, it was analyzed descriptive statistic.

■ RESULT AND DISCUSSION

The Feasibility of Weblog-based flipped classroom in CLIL

The objectives of this study were how feasible weblog based flipped classroom applied in CLIL and how feasible weblog based flipped classroom support the development of 4Cs in CLIL. The first objective was to explore how feasible weblog based flipped classroom applied in CLIL. Some actions were done to get the data of how feasible flipped classroom to be applied in CLIL classroom. To get the data, observations

were done online and offline mode. Online observation were done to get the data of how was teacher's blog used as an aid to applied flipped classroom in CLIL. Meanwhile offline observations were done to explore the practices of the weblog based flipped classroom in classroom setting. From the result of observation that confirmed by interviewing the teacher, it can be inferred that weblogs-based flipped classroom is feasible to be implemented in CLIL.

In this study the researcher focusing on mathematics subject taught in CLIL. Based on the field notes resulted from online observation, it can be identified that the teacher used the blog to upload the materials to be studied by the students before teaching and learning in the classroom. It is in line with (Turan & Akdag-Cimen, 2020; Martínez-Jiménez & Ruiz-Jiménez, 2020) that the initial step in flipped mode learning is that the teachers have to post the materials to be studied in their blogs. There are 24 materials presented, and most of them provided with explanation's video to support students understanding of the materials. It is also stated in the research conducted by (Zainuddin &Halili, 2016) which emerged that teachers need to provide additional explanation of through the video in flipped mode learning. Moreover in each material, the teacher also provided the link of the big book as the reference. It is also confirmed with the result of interview conducted with the teacher. The following is the excerpt of interview with T1 (teacher 1):

R : *What is the purpose of the video uploaded in weblog?*

T1 : *Yeach, truly incorporating weblog based and implemented in flipped mode class need a special regulation and time management, both teachers and students. Especially we have to respond in time the students' question through chat box, but it can be done since there will be*

notification through email when the students writing comment in my blog.

R : *And is it must be done in English?*

T2 : *Yes, it is a must. Since we are in CLIL mode, all of the materials/ instruction and even communication was done in English.*

Furthermore, the teacher explained that, weblog based flipped classroom was very feasible to be used. It is also a very huge improvement to use it in CLIL. Before, the teacher was done in conventional mode. The teachers argued that by using weblog based flipped classroom, they were more discipline and the teaching getting well organized. It is in line with (Chen et al., 2021) who asserted that "it is easier to manage the teaching in flipped classroom". Moreover Zainudin et al. (2023) proposed that technological based teaching support positively to the development of students' learning process. Weblog based flipped classroom also giving a good impact towards students' motivation to study, since the students felt anxiety to learn mathematics. The students argued whether mathematics is difficult lesson. But, after being experienced with the use of weblog based flipped classroom, the students change their opinion. Here are the excerpts of interview with student 1 & 2 (S1 & S2):

R : *What is your opinion about teachers' past and now on mode of teaching (weblog based flipped classroom?*

S1 : *Well, first of all, I do not really like mathematic subject before, and I am getting lazy when I have to join mathematics class, it was boring, but I it was changed after the teachers using website (weblog based flipped classroom)*

R : *... and what about you?*

S2 : *Hmm, I like it, I always happy when my mamma asked me to open the teachers'*

blog, for me it seems that there always something new presented in the blog.

From the result of interview and also confirmed with the learning activities taken during online observation, both teachers and students enjoy the teaching and learning process using weblog based flipped classroom. They claimed that it was very applicable, especially in helping the teacher organize the teaching (see Porto, 2021). Here are the excerpts of the interview

R : *What is your opinion deal with the use of weblog-based flipped classroom in CLIL? is it applicable ?*
T2 : *Sure, I completely agree, it is applicable to be used to study in CLIL.*
R : *Why? Could you give your reasons?*
T2 : *Using weblog helps us to organize the teaching and learning.*

The student also argued whether weblog-based flipped classroom in mathematics subjects was easier to do. They can open teacher's blog whenever they want and wherever they need to open it. The blog was designed for easily access, even through students' android based smartphone owed. It is in line with (Gong, Yang, & Cai, 2020) which argued that the flexibility learning system of flipped classroom using blog was accessible. The challenges emerged when they do not have any internet connection, limited data connection, or out of coverage area (rural area). As seen in the excerpt of the interview conducted with S2 & S4 below:

R : *What is your opinion in relation to the use of weblog based flipped classroom in CLIL? is applicable?*
S2 : *Well, by using the weblog, it is easily to access wherever and whenever. I can open the teachers' blog in our leisure spare time.*
R : *What kind of devices you used to open the blog?*

S4 : *I use my smartphone (android)*
R : *How its operation?*
S4 : *We just click to open the weblog, find the materials and learn. If I have a question, I chats the teacher through the chat box, and the teacher usually will respond it soon.*
R : *How was your respond when the teacher does not respond your queries? It is no problem, the teacher will explain it when face to face meeting in classroom*
R : *What is your main problem in this learning mode?*
S2 : *The problem comes when I do not have any internet connection, or sometimes I am at the rural area.*

Deals with the use of weblog based flipped classroom in CLIL, the teacher confirmed that the use of weblog based flipped classroom motivated the students to pay more attention in learning mathematics since during face-to-face meeting in classroom, the teacher challenge the students to present the problem (case) to be solved by a group of students and individually. The results was in line with the research conducted by Joanne & Lateef (2014) as stated that although flipped classroom relatively a new model of teaching practice in Asian context, but it is appears to be gaining momentum and is well-adapted. Moreover, the study conducted by Holmes, et. al. (2015) argued that flipped classroom is considered a natural techniques were designed to recognize students' diverse learning styles and provide hands-on application of practice skills in an outside of the classroom.

Since, in flipped class model, the face-to-face meeting was done for discussing some case/problem then to explore the materials and explanation was done online through weblog that can be access at home. It is also seen during offline-observation, the face to face meeting was fully done for discussion. It seems that the teacher trigger the students to communicate in English,

by doing correction and gentle reminder when the students spontaneously speak in *bahasa* (the term to refers to Indonesian language). As confirmed separately after the class through interview:

R : *It seems that the meeting in the classroom only for discussion?*
T2 : *Yes, it is true, since the principle of flipped classroom is flipping the conventional teaching. The role of weblog is crucial to facilitate students' mastery of the materials.*
R : *And... I want to confirm the way you correcting and reminding your students when they speak in bahasa, is it a must?*
T2 : *Off course, since we are on CLIL setting, it is a must both of us communicate in target language (English). So, all of the materials, instruction and the communication must in English.*

In short, to conclude the feasibility of weblog based flipped classroom to be used in CLIL setting was good in term of it accessibility, easily used, organized teaching, communicative and motivating the students. Especially in CLIL, weblog based flipped classroom presenting new mode of teaching methods that support students to study in and outside the classroom. Farrah & Abu-Dawood (2018) proposed that students responded positively to using mobile applications in their learning processes. Although, it was something new incorporating weblog based flipped classroom in CLIL, the students responded positively. They also able to adapt rapidly from conventional CLIL teaching to the IT based CLIL teaching. Other than that Recino (2020) adding the 5Cs in flipped learning in CLIL. According to him the tools used in flipped classroom and CLIL is based on the five "Cs" framework (content, communication, competence, cognition and community).

Weblog based flipped classroom supports 4Cs in CLIL

Another objective of the current reserach was to analyze how weblog based flipped classroom supports the development of 4Cs in CLIL. Distributing questionnaire to the students was done to collect data towards their perception of how weblog based flipped classroom supports the development of 4Cs in CLIL. In this section, the students were purposively chosen to be interviewed to confirm the data gathered from questionnaire. The questionnaire consisted of 9 positive and 3 negative statements. The questions categorized into 4 main aspects of 4Cs CLIL framework (Coyle, 2013) namely: content, communication, cognition & culture as seen in table 1:

Table 1. The questionnaire of how weblog based flipped classroom supports 4Cs in CLIL

No.	Statements	Answer				
		Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strogly Disagree**
1	***Content*** a. Weblog based flipped classroom drive you to understand what you are going to learn; b. Weblog based flipped classroom leads you to know					

the objectives of the study;

c. Weblog based flipped classroom not supporting you to gain learning outcomes.

2   *Communication*

a. In weblog based flipped classroom, English is what you do with the content;

b. The materials presented support you to specialize vocabulary and phrases;

c. The teachers do not check out key grammatical and particular tense or feature;

d. Language of tasks and classroom activities served in English.

3   *Cognition*

a. The questions I answer go beyond 'display' questions

b. The tasks I do is an analysis form;

c. The task given not appropriate with the content taught.

4   *Culture*

a. The topics presented through weblog based flipped classroom supports cultural understanding of the target language;

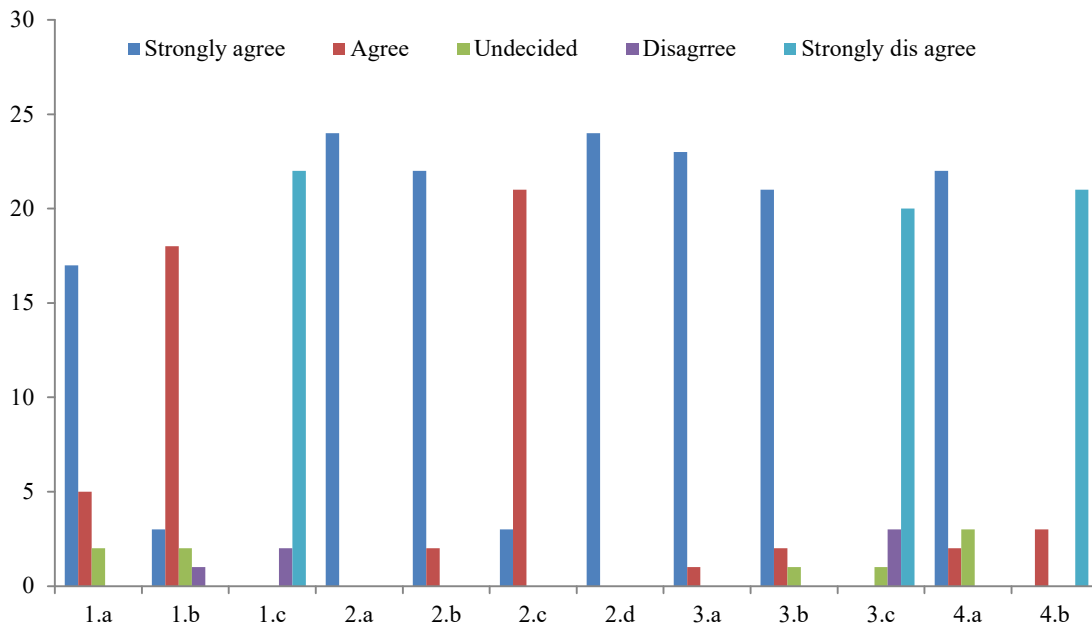b. Weblog based flipped classroom does not emerging awareness and responsibilities of global and local citizenship

Figure 1. Students' respond to the questionnaire

The results can be seen as illustrated in the figure 1 below: As shown in figure 1, most of the students positively responding the items mentioned in the questionnaire. It is asserted that weblog based flipped classroom positively feasible to support the development of 4Cs in CLIL setting. It is in line with Intapat (2016) which asserted that applied CLIL affected in the use of the 4Cs framework. The figure 1 showed that 11 out of 12 items responded positively by the students. First of all, 71% of the students felt strongly agree that weblog based flipped classroom drives to understand what they are going to learn; second, 75% of the students agree that weblog based flipped classroom leads them to know the objectives of the study; third, 91% of the students strongly dis agree whether weblog based flipped classroom does not supporting them to gain learning outcomes. It asserted that weblog based flipped classroom perceived positively support the development of content in CLIL. The finding is in line with (Lo, 2018) which indicated that in CLIL classroom, content presented through interesting media perceived positively towards students' understanding.

In terms of communication: First, 100% of the students strongly agree that weblog based flipped classroom, English is what they did with the content; Second, 91% of the students strongly agree whether materials presented supporting them to specialize vocabulary and phrases; Third, 87% of the students claim that the teachers do not check out key grammatical and particular tense or feature. Fourth, 100% of the students

strongly agree whether language of tasks and classroom activities served in English. From this point of view, it can be inferred that through weblog based flipped classroom support positively the development of communication in CLIL. The finding was in line with Zhaowen (2015) proposed that the ultimate goal of English language learning is enable the students to communicate effectively in real contexts, use authentic language, foster their ability to integrate the cultural aspects of the target language with its culture, and finally be qualified to communicate with foreigners using accurate target language.

In cognitive aspect, there were three statements showing whether weblog based flipped classroom support the development of students' cognition. First, 95% of the students strongly agree whether the questions or task go beyond 'display' questions; Second, 87% of the students strongly agree that the tasks they did was analysis form; Third, 83% of the students strongly dis agree whether the task given was not appropriate with the content taught in class. It asserted that weblog based flipped classroom supporting the development of students' cognitive skill. It is also confirmed with the result of the study conducted by Lo (2017) which is indicated that technological assisted learning support the development of students' cognitive skill through critical thinking activities provided.

The last component of 4Cs framework in CLIL was culture. There were 2 statements concerning the implication of weblog based flipped classroom towards the development of culture. First, 91% of the students strongly agree whether the topics presented through weblog based flipped classroom supports cultural understanding of the target language (English); Second, 87% of the students responded positively and strongly dis agree that weblog based flipped classroom does not emerging students' aware and responsibilities of global and local citizenship. From this point of view, it can

be concluded that weblog based flipped classroom positively supporting the development of students' cultural understanding. The Finding was in line with Safari & Fitriati (2016) who stated that the aspect of cultural awareness in CLIL can be triggered from the use of aid in CLIL.

Interestingly, from all the statements presented in the questionnaire, the students argued that the teacher do not check out students' key grammatical and particular tense or feature during the teaching and learning in CLIL setting. Then the researcher interviewed the teacher to confirm students' respond deals with grammatical feature. The teacher explain that, studying in CLIL especially in Indonesian context, the main target set by the teacher is reducing students' anxiety to speak in English. It was done based on teachers' daily observation and also small talk done with the students. In the same way, Nurdianingsih et al. (2023) proposed that anxiety is a negative emotion that causes pupils to have low expectations for their performance and to worry about how other people will see it. Moreover, the students strongly agree that CLIL helped develop their the language learning and content knowledge.

The students also purposively chosen to interviewed to confirm this manner, and most of them agree that grammatical manner is the main reason of their anxiety to speak in English. Here are the excerpts of the interview:

R   : *Is it true that grammatical manner was not checked during communication?*
T2 : *Yes, it is true.*
R   : *Could you please explain the reason of that way?*
R   : *Well. Especially in Indonesian context, English is considered as foreign language. Ideally we have to see all in a whole aspects of language. But students feel anxiety when we have to push grammatical manner during*

communication. The target is that they happily to speak in English

R : *Well dear, did you think that grammatical manner is difficult and drives your anxiety to communicate in English?*

S3 : *Honestly, I do not really understand grammatical manner, thing that I know is all about vocabulary.*

R : *What is the most problem for you to speak in English?*

S4 : *For me, I feel sad and nervous when I have to speak and think grammatically. It is frightening for me.*

Based on the results of the questionnaire confirmed with teachers and students' interview, it can be inferred that weblog based flipped classroom feasible to support the development of 4 Cs in CLIL. It is in line with Yue (2019) who proposed that the study conducted with non-English-major Chinese students aiming to cultivate 4Cs through teacher's blog. The participants demonstrated improvement in four components of CLIL framework. The current study also inferred that the use of weblog in teaching and learning process gives benefits to students in terms of the developments of 4CS in CLIL. It is in line with the study conducted by Duffy & Bruns (2006), they state that within the structure of a weblog, students can demonstrate critical thinking, take creative risks, and make sophisticated use of language and design elements. It is also beneficial to emerge their critical, communicative, and collaborative skills.

■ CONCLUSION

Pointing out from the objectives of the study and compared with the result emerged, it can be concluded that weblog-based flipped classroom is feasible to be applied in CLIL setting, and further the result showed that the students felt that weblog-based flipped classroom positively supports the development of 4Cs in CLIL. The findings imply that incorporating technology based learning in CLIL affects a good influence towards students' motivation, critical thinking, and also cognition. It is also beneficial for the teachers, especially in the easy use of technology in developing 4Cs in CLIL. The limitation of the study was it is only done in one class of CLIL classroom, so it is not able to provide comparison when it is implemented in different case of students. Further study of how it is implemented in a wider research setting and with various accessible e-learning media needs to be done to give contribution to the development of CLIL studies.

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