THE IMPACTS OF CREATING YOUTUBE VIDEO PROJECT TO FACILITATE STUDENTS’ CRITICAL THINKING

Dedeh Rohayati
English Education Program, Teacher Training and Education Faculty University of Galuh, Ciamis, Indonesia
E-mail: dedehrohayati2017@gmail.com

Etika Rachmawati
English Education Program, Teacher Training and Education Faculty University of Galuh, Ciamis, Indonesia
E-mail: etikarachmawati@gmail.com


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Abstract: Nowadays, the education system has to meet the characteristics of 21st century skills, among others, the involvement of digital literacy, students’ centeredness, and critical thinking. This study depicts the impact of creating YouTube Video project to facilitate students’ critical thinking skill at which the qualitative case study is employed. Six third year students of English Department learning the topic of English for Medical are selected purposively. The interview questions analyzed thematically and documentation of YouTube Video processed descriptively using scoring rubric are utilized. The finding revealed that: (1) students were aware of the learning which is based on project and understand critical thinking; (2) students perceived creating YouTube video project in learning the topic of English for Medical as a tool to facilitate critical thinking skill; (3) students demonstrated their satisfactory improvement in English for Medical; and (4) students were aware of digital literacy to support their future career and lifelong learning. Meanwhile, the documentation of YouTube video shows that students’ video uploading onto YouTube were excellent in term of length, content accuracy, and presentation. Their works were weakened by their unfamiliarity of how to create an effective YouTube Video. Consequently, YouTube Video is unclear if it would be widely utilized, particularly, for those who intend to learn English for Medical. This implied that students’ critical thinking skill in creating a project needs improvement.

Keywords: critical thinking; English for medical; project-based learning; YouTube video

INTRODUCTION
The great concern of critical thinking which has become predictor for reading comprehension skill (Hidayati, Indrawati, & Loeneto (2020), has become a subject to be investigated by many educational practitioners. Moreover, the ability of thinking critically in 4.0 era is considered imperative (Brodahl, Hadjerrouit, & Hansen, 2011; Sharadgah, 2014; Hidayati, Indrawati, & Loeneto, 2020) and it must be implemented in the classroom. The reason is that critical thinking skill can create the individual who are able to evaluate, think logically, and do many sense of actions (Chaffee, 2014; Chaffee, McMahon, & Stout, 2015; Facione & Facione, 2011). It must be kept in mind that the inclusion of critical thinking ability should meet the students’ current trend, i.e., the involvement of internet in teaching and learning process (Kavaliauskiene, Suchanova, & Velickiene, 2012; Saädé, Morin, & Thomas, 2012; Sharadgah, 2014; Jones & Shao, 2011; Alanazi, 2013; Romagnuolo, 2015). Consequently, this lead to the necessity of creativity and communication which is sought by today’s employers who considers those skills essential.

Many experts have a great concern on critical thinking definition, like Reichenbach (2001, p. 13) and Chaffee (2014). Reichenbach (2001, p. 13) defines critical thinking as utilization of “a set of skills which are interconnected, with the purpose of analyzing, creatively working with, and evaluating what you have obtained from reading or hearing so that someone can make a decision whether she / he must take a specific action or not.” Meanwhile, (Chaffee, 2014) considered thinking critically as the way someone makes sense of the world so that she or he can clarify and improve it or making sense of the world by carefully examining the thinking process to clarify and improve our understanding. However, the present study concerns with critical thinking skill referring to Bloom Taxonomy (Bloom, 1956) regarding the hierarchy of thinking skill. There are six levels of Bloom Taxonomy: knowledge, comprehension, application, analysis,
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synthesis, and evaluation.

That is not all, the educators also must be aware of the utilization of the relevant teaching strategy that trigger students critical thinking, for example, project-based learning (Saliba, Mussleman, Fernandes, & Bendriss, 2017). This kind of approach provides students the opportunity of designing, planning, carrying out the large project to produce artefact or public output such as product, publication, or presentation (Patton, 2012). Moreover, it must be kept in mind that utilization of project assessment should match the characteristics of learners in 21st century who are categorized as digital natives and think fast (Jones & Shao, 2011; Alanazi, 2013; Pratama & Abdullah, 2015; Pratama, 2018), in particular, the inclusion of information and communication technology competencies (Dooley & Masats, 2011; Artello, 2013; Topps, Helmer, & Ellaway, 2013; June, Yaacob, & Kheng, 2014). One of information and communication technology competencies is creating a YouTube video. As one of top rate video websites (Brunner, 2013) for teaching media, YouTube video might become an effective Project-based assessment to reveal students’ ability in critical thinking.

Unlike the others studies, the present study is not focused on how to lead the students to learn by project based learning along the teaching and learning process because there was online lecturing along the semester. In the present study, the researcher asked the students for making a project of YouTube video substituting their midterm test by adapting the idea of Dooley & Masats (2011), Topps, Helmer, & Ellaway (2013), and Bloom (1956) as given in Figure 1. Also, it is intended to fulfill the objective of the present study regarding the alternative way to facilitate students’ critical thinking. Of course, the characteristics of project based learning is exemplified during and until the submitting of their working; so does the critical thinking skill in creating a YouTube Video. Many researchers are intrigued by the topic related to the present study (June, Yaacob, & Kheng, 2014; Lubis, Lubis, & Purba, 2020; Wahyudin, 2017). Lubis et al. (2014) found that integrating Project-based Learning with Telegram as media digital is effective to share video and absolutely effects on students’ communication skill. Similarly, June, et al. (2020) endeavored YouTube Video as an effective tool to stimulate students’ learning and improving their critical thinking. So did Wahyudin (2017) who employed project based learning in English for Business class with the result that students who learn English for Business through project based learning outperforms those who learns English for Business by using Presentation, Practice, and Production (PPP). It is unfortunate that based on previous studies aforementioned, none of them focuses on creating YouTube video project in learning the topic of English for Medical to facilitate critical thinking. For this reason, this study was intended to sketch how the students organized themselves to create a YouTube video project, in particular, depict the impact of creating a YouTube video project in learning English for Medical to facilitate students’ critical thinking skill.

METHOD

As previously mentioned, this study aimed at finding out the impact of creating YouTube video project in learning the topic of English for Medical to facilitate students’ critical thinking skill. The study implemented the qualitative paradigm with the type of case study involved six third year students majoring English Department Enrolling ESP Program Development course (the specialization course). They worked in pairs and played role based on their own selected situation and character focusing on the topic of English for Medical. The respondents grouping into three group were selected purposively because it was based on the researcher judgment at which they provided the researcher the sufficient data. They were required to accomplish the project as a substitution of midterm test in the form of creating three-minutes video clip that had to be uploaded onto YouTube. The frameworks used in the present study was based on the framework of Topps, Helmer, & Ellaway (2013), Dooley & Masats (2011) and Bloom (1956). There were three selected topics of conversation held by each group: conversation between Obstetrician and patients, conversation between doctor and patients, and conversation between pharmacist and patients.

As the primary data, the online semi structured interview (via WhatsApp Video call) employing seven open ended questions was conducted due to the fact that the lecturing was at the time of the Covid-19 pandemic; so there was not traditional lecturing. To follow AbdGani, Rathakrishnan, & Krishnasamy (2020), the validity and reliability of interview questions were administered through the pilot test using three steps of the interview procedures session: (1) pre-interview stage, (2) during the interview stage, and (3) post-interview...
stage. It was piloted to the cohort students; so, the instrument was considered valid and reliable.

Another primary data was documentation of YouTube video created by students containing students’ playing a role on three situation of English for Medical, among others, pair 1 took the character of obstetrician and patient, pair 2 played role of doctor and patient, and pair 3 conducted the conversation between pharmacist and patients. In conducting the project, students were required to determine the setting, the appropriate property, etc.

The creating of three-minutes YouTube video project was employed in this study for it has been widely utilized and very effective to accommodate the character of project based learning, English for Specific learning purposes (Wahyudin, 2017), and facilitate critical thinking skill. Meanwhile, the use of roleplaying was intended to assess students’ linguistics competencies on the related topic.

Table 1. Scoring rubric

<table>
<thead>
<tr>
<th>Argument</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
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<tr>
<td>30pts</td>
<td>The video clearly and convincingly expresses why the text best embodies the essence of the topic chosen and the culture of its time. Argument is supported by evidence from the text and historical context.</td>
<td>The video clearly and somewhat convincingly expresses why the text best embodies the essence of the topic chosen and the culture of its time. Argument is supported by some evidences from the text and historical context.</td>
<td>The video expresses why the text best embodies the essence of topic chosen and the culture of its time, but does so vaguely and unconvincingly. Argument is supported by little evidence from the text and historical context.</td>
<td>The purpose of the video is unclear. The argument is not developed or supported by any relevant evidence.</td>
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</table>

| Presentation | 30pts | Video is visually interesting and approach is extremely creative. Many props and/or costumes enhance the presentation. If | Video is visually interesting and approach is fairly creative. Some props and/or costumes are used and are relevant, but do not enhance the | Video is somewhat dull visually and not very creative. Few props and/or costumes are used, and they are barely relevant to the | Video is visually uninteresting. No props or costumes are used. If additional music is used, it is irrelevant to the |

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Figure 1. Framework of project on creating 3-minutes video clips uploading onto YouTube channel
The interview data was analyzed by the following steps: transcribing, categorizing, condensing, and interpreting (Brinkmann & Kvale, 2014). Subsequently, the interview result was formulated into four central themes, among others: (1) students’ awareness of the Project based learning; (2) students’ awareness of critical thinking; (3) students’ improvement in English for Medical such as mastering the terms and expression in conversation between obstetrician and patients, doctor and patients, and pharmacist and patients; and (4) students’ awareness of information, communication technology competences to support their future career and lifelong learning.

Meanwhile, the YouTube Video performing the role playing of the students on English for Medical was rated by scoring rubric adopted from www.rcampus.com (See Table 1). Subsequently, it was analyzed by using the project idea of Dooly & Massats (2011) and Topps, Helmer, & Ellaway (2013), as well as Bloom (1956) regarding the critical thinking theory.

**FINDINGS AND DISCUSSION**

The result of the study was obtained from the interview which were analyzed thematically and the documentations of YouTube video which were processed by scoring rubric. Those were aimed to answer the research question regarding the impact of creating YouTube Video project in learning the topic of English for Medical to facilitate students’ critical thinking skill. There are five significant impacts resulting from the analyzed interview data which reflected students’ attitudes towards creating the project of YouTube Video in learning the topic of English for Medical to facilitate students’ critical thinking skill. Second, students’ project in the form of YouTube video documentation were analyzed by using scoring rubric. Those are to be presented in the following organization.

**Students’ attitudes towards creating a YouTube video project in learning material of English for Medical**

The first central themes deal with students’ awareness of the project based learning as given in Table 2.

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Students’ Answers</th>
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<tbody>
<tr>
<td>1</td>
<td>What do you know about Project-Based learning PBL?</td>
<td>Project-based learning is a learning method at which the activity employs medium of projects...is a learning method that provides students the opportunity to explore, assess, interpret, and present various product forms of learning outcomes...it also provides a direct experience because PBL involves project...is a teaching method in which students actively engage their knowledge and skills in real-world and meaningful personal projects.</td>
</tr>
<tr>
<td>2</td>
<td>Elaborate the steps of PBL!</td>
<td>Preparation, questioning, planning and designing, researching, and producing product, performing a product, assessing the outcome, evaluating.</td>
</tr>
</tbody>
</table>
Based on Table 2, it indicates that students understood the theory and the implementation of project based learning as learning approach. Furthermore, the keyword of project characterizing the outcome of the project based learning approach has been mentioned by all of students. Students’ understanding on the intended theory shows students’ positive attitudes towards project based learning which can accommodate students’ engagement as well as students’ centeredness.

Connecting to documentation of YouTube video, the project created by students was not doubtful to be similar with the framework of Topps, Helmer, & Ellaway (2013) and Dooley & Masats (2011). Students commenced the project by their linguistics competencies on English for Medical. It was embedded by other competencies such as digital literacy or information, communication and technology competencies, and critical thinking skill. Thus, those evidences were consistent with what has been said by Patton (2012) regarding the steps and the definition of project based learning.

Similarly, the students also have been familiar with the term of critical thinking. As can be seen in Table 3, students offered several keywords of critical thinking such as “what to do and what to believe” (judgment or evaluation), questioning, and problem solving. Students’ opinion might be implied that someone who has been equipped by the critical thinking ability would become a valuable person in the future, lead her/him to be a creative person. As far as it was concerned, the creativity representing someone’s higher order thinking level would be more demanded in the 21st century skill.

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<td>3</td>
<td>What do you know about critical thinking?</td>
<td>Critical thinking is the ability to think clearly and rationally about what to do or what to believe. It includes the ability to engage in reflective and independent thinking. Someone with critical thinking skills is able to do the following: understand the logical connections between ideas... means thinking critically in seeing something...critical thinking is an act of responding to the information we receive by considering all aspects related to that information... the ability to think critically, or continue to question until finally finding a solution. Critical thinking involves creativity and the desire to keep finding out so that we can become someone who has good thinking skills...critical thinking is the ability to think rationally and clearly in understanding the logical connections between ideas. When you think critically, you think of the best solution to a problem in an organized manner.</td>
</tr>
<tr>
<td>4</td>
<td>What do you think about creating YouTube video project in learning material of English for Medical in improving your critical thinking skill?</td>
<td>Critical thinking skills will be easier to be facilitated...there are so much contents on you tube, so we have to select, to learn, to think critically in learning English for medical...creating YouTube video for English for medical can improve critical thinking, because with PBL, we must be able to think critically to solve a problem, complete a project, and find solutions to these problems, so students will think critically...it can improve critical thinking skills because English for medical learning is designed and oriented towards high-level skills so that students are able to analyze, evaluate, create, and solve problems. Promote interaction among students as they learn. Learning in a group setting often helps each member achieve more. Ask open-ended questions that do not assume “one right answer.” Critical thinking is often exemplified best when the problems are inherently ill-defined and don't have a “right” answer...by analyzing, observing and making conclusions during the creation of YouTube video, somebody are motivated to think critically and deliver criticism...and to have the character of hard work, creativity, curiosity, respect and love reading achievement...students are given instructions about a project that will be done about English for medical, then students will think critically about working on the project, then students look for solutions by making YouTube video about English for medical....learning activities using the PBL model begin with giving a problem, The problems presented relate to the real life of the students, Organizing the discussion around the problem, not discussing around scientific disciplines, Students are given maximum responsibility in establishing and carrying out the learning process directly. Students are formed into several small group. Students are required to demonstrate the product or performance...critical thinking skills in working on a YouTube video project in learning English for Medical have improved, because while working on the project I was required to think critically so that the project was completed.</td>
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</table>
well. And it was satisfying, because with this project I was able to improve my critical thinking, and the video results were very satisfying….my critical thinking skills in doing the project YouTube video in learning English for medical have improved because when I made the video I was trained to think critically about how to finish the video properly so that the results obtained can be satisfying.

Apart from their understanding towards the theory of critical thinking, they agreed that their critical thinking skill was more easily triggered and improved during the process of the project. They were able to deliver opinion which linked to what were stated by Reichenbach (2001) and (Chaffee, 2014) regarding judgment as the final step of critical thinking skill.

Also, they elaborated the way the critical thinking is facilitated in creating YouTube video project in learning material of English for Medical. Students’ statements implied that the process of creating the project and critical thinking skill went hand in hand. Their satisfying final project led them to feel contented because at the beginning they seem to realize that in the internet of thing era, critical thinking skill is a must. The students’ answer linked to Sharadgah (2014) in that critical thinking would be ultimate developed in the accessible internet environment. Thus, it is fair to say that students’ opinions represented the generation of 4.0 era at which they have been familiar with any kinds of social media and learning platform.

Connecting to Taxonomy Bloom on the level of thinking, it is indeed that they have successfully demonstrated their critical thinking skill. They needed several steps including gaining and comprehend the knowledge of the related topic, applying, analyzing, synthesizing, and evaluating the resources to produce the satisfying project of product. They seemed to believe that the major requirement in creating the project is critical thinking skill. This assumption is relevant with statement proposed by Saliba, Musseleman, Fernandes, & Bendriss (2017).

Another central theme discusses something about students’ improvement in English for Medical. As can be seen in Table 4, it was found that students gained a very fruitful result after creating the project.

Table 4. Students’ improvement in English for Medical

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<th>No.</th>
<th>Questions</th>
<th>Answers</th>
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<tr>
<td>5.</td>
<td>What improvements did you obtain after creating a YouTube video project in learning material of English for Medical?</td>
<td>Creating YouTube video project in learning the material of English for medical provides student the opportunity to broadly improve students’ knowledge on English for medical as well as their English proficiency…it improve learning outcome of English for Medical, self-directed/ self-regulated learning…after creating YouTube video project in learning English for Medical, we were able to speak some vocabulary about English for medical and understand the types of conversational English for medical in various situations.</td>
</tr>
</tbody>
</table>

Based on Table 4, students elaborated their improvement in linguistics, especially vocabulary and the type of discourse format, and language skill aspect, in particular, speaking skill. Implicitly, students were encouraged to have a high and accurate English proficiency and trained to be a skillful teacher on the topic of English for Medical. This might become a pathway for all of practitioners who teach English for Specific purposes to apply learning which is based on project, as proposed by Wahyudin (2017). Differently, he focused on the implementation of teaching students English for Business without exploring students’ critical thinking. Regarding creating a YouTube video as a substitution for midterm or final test, it is considered effective for assessment. This is consistent with Pratama & Abdullah (2015) although they did not dig out deeply the critical thinking skill during the implementation of project based learning as well as the analyzing the project using critical thinking theory.

The last central theme is regarding the students’ awareness of information, communication, and technology competencies to support their future career and lifelong learning, as given in Table 5. Students were also sure that, nowadays, the process of teaching learning would be best to involve technologies which can be accessed by internet. In addition, they also realized themselves who are considered as digital natives and always think fast. Implicitly, this

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interpretation linked to what has been said by Jones & Shao (2011) and Alanazi (2013) regarding the categorization of young people and students’ enthusiasm on the use of technology. Students were also sure that, nowadays, the process of teaching learning would be best to involve technologies which can be accessed by internet.

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<th>Questions</th>
<th>Answers</th>
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<tbody>
<tr>
<td>6.</td>
<td>What do you think about creating a YouTube video project?</td>
<td>I think creating YouTube video has become a very popular for students nowadays, moreover they have been accustomed to learn everything through this application in internet environment…creating a YouTube video is effective media in PBL because it facilitates students’ thinking, analytical and imaginative skill, motivation, and enthusiasm…the inclusion of creating a YouTube video in PBL is used to present an image and sound representation of an idea or event so that it becomes a material collection for learning beyond lecturing and reading a book….The use of YouTube video match the young generation demand who tend to have more various way of learning.</td>
</tr>
<tr>
<td>7.</td>
<td>Based on your opinion, explain how can the creating of YouTube video prepares you for a professional career and lifelong learning? Explain!</td>
<td>It can prepare us for in professional careers because we are not only studying the material of English for medical but also learning the process of creating YouTube as a popular application for student. So, we can earn money if we can navigate it as well as possible…PBL with YouTube accommodates students’ analytical skill that is needed in the future career and the world which is very competitive…the application of project based learning with YouTube videos will be very useful and very supportive of future careers, because the process of creating YouTube video project involves the ability to solve the problem. This experience will be very useful in the future.</td>
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</table>

The calculation of YouTube video scoring relating to critical thinking skill

As previously mentioned, the documentations of YouTube video were then scored by using scoring rubric adopted from www.rcampuscom. In general, students’ work uploaded onto YouTube are excellent and satisfying in three aspects, namely, length, content accuracy, and presentation, with the obtained score of each video created by students valued 4. It is unfortunate that the students’ works were weakened by the aspect of argument at which the students did not attach subtitle or any caption accompanying what expression they were uttered uploading onto the video. Consequently, all students work fulfilled the criteria of 1. The calculation of YouTube video scoring are described in Table 6.

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argument</td>
<td>The purpose of the video is unclear. The argument is not developed or supported by any relevant evidence.</td>
<td>1</td>
</tr>
<tr>
<td>Presentation</td>
<td>Video is visually interesting and approach is extremely creative. Many props and/or costumes enhance the presentation. If additional music is added, the music compliments the piece and does not overpower other audio.</td>
<td>4</td>
</tr>
<tr>
<td>Content Accuracy</td>
<td>Content of movie is 100% historically accurate. The information presented is extremely relevant to the overall topic.</td>
<td>4</td>
</tr>
<tr>
<td>Length</td>
<td>Video is between 2 and 4 minutes long.</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 6 indicates that students followed the instruction well which means that they gained knowledge by reading the instruction given before creating the project. The accuracy of the content was also obtained through their comprehension knowledge on English for Medical. This was followed by their ability of analysis, synthesis, and evaluation in order to produce and present the project. Only the argument aspect that had the least of all aspects because the students did not include the subtitle or any caption text accompanying what they were uttered in video.

The intended argument in the project created by the students of the present study refers to the
CONCLUSION

The present study has discussed the impacts of creating YouTube video to facilitate students’ critical thinking. It has been revealed not only students’ attitudes towards creating the projects, but also students’ competencies in the area of linguistics, information, communication, and technology, as well as critical thinking. Regarding the linguistics competencies, students become more proficient in spoken English for Medical, master the related vocabulary, and recognize the discourse format on related topic. With regards to the competency of information, communication, and technology, students begin to have a comprehensive knowledge of creating the content of YouTube video, particularly that can be used widely for learning English for Medical. Despite the fact that students’ critical thinking still need improvement, the present study exemplifies students’ critical thinking reflection. In addition, the final products might become evidence that students are insisted to share the video widely in order to be used by those who wants to learn English for Medical. However, the research would seem to be significantly intriguing best if only the research involved various instrument and rich data. Therefore, the future research is suggested to broadly utilize the methodologies which lead to the rationale research result.

REFERENCES


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reason, as well as fact, as suggested by Reichenbach (2001), why the video was created. The purpose of the creating YouTube video seemed to be difficult to be answered as an authentic material for those who would like to learn English for Medical. Meanwhile, the future learners who would use this video would also like to learn all aspect of English productive and receptive skill, both orally and written accurately, that would occur hand in hand. It was unfortunate that there were not subtitle to prove that the video YouTube can be utilize for developing student English proficiency, mainly in listening skill and recognizing written vocabulary. Yet, it must be admitted that students’ project represented their innovative work due to the contribution of internet environment. This is relevant with Hermariyanti & Ferawaty (2016) who conduct the research on the topic of electronic based writing, however, resulting in the same idea in that the internet accessibility made any students’ work innovative.

Connecting to critical thinking skill, the documentation of YouTube video created by students reflected their critical thinking skill referring to Taxonomy Bloom. Students’ knowledge on creating the project was based on their ability in searching the information. The intended information consisted of how to have a comprehensive knowledge of linguistics competences and information, computer, and technology competencies. After comprehending the information regarding the way to create YouTube video containing English for Medical, students applied those informations which is in the form of instruction. It was followed by analyzing each information of procedure and resources to be utilized in creating a YouTube video. All of procedures and resources were synthesized, then, the students made evaluation towards the obtained procedures and resources. After making evaluation, it was obtained all resources to be employed in creating a YouTube video. Finally, the project final product was uploaded onto YouTube channel.

Seeing the students’ critical thinking skill reflected on YouTube video, it implied that students have a high reading comprehension skill. Meanwhile, the reading comprehension correlate to the ability of critical thinking (Hidayati, Indrawati, & Loeneto, 2020). The intended reading activity deals with reading instruction or procedure in creating the project and reading the world which is getting global and competitive.


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