2022 4th International Conference on Research and Academic Community Services (ICRACOS)

https://icracos.lppm.unesa.ac.id/

No. : 57231/UN38.I/DL.01.02/2022

CERTIFICATE

This is certify that

Arik Susanti

has participated as

Presenter

International Conference on Research and Academic Community Services (ICRACOS)
as a part of International Joint Conference on Arts and Humanities (IJCAH) 2022

Surabaya, 10 September 2022

Vice Rector for Academic Affairs,

Prof. Dr. Bambang Yulianto, M.Pd.

Conference Chair,

Arie Wardhono, S.T., M.MT., M.T., Ph.D.

Online Project-Based Learning and Critical Thinking Skills: A Case Study in Tertiary Education

Arik Susanti[1(✉)], Sri Rachmajanti[2], Nunung Suryati[2], and Utari Praba Astuti[2]

[1] English Education Department/Doctoral Students, Universitas Negeri Surabaya/Universitas Negeri Malang, Malang, Indonesia
ariksusanti@unesa.ac.id

[2] English Education Department, Universitas Negeri Malang, Malang, Indonesia

Abstract. Institution of higher education are required to provide to the growth of students' critical thinking skills. The use of online learning is common in Universitas Negeri Surabaya because of pandemic Covid 19. Therefore, the goals of the study is to describe English method, project-based learning, to enhance critical thinking in an online environment for English Education Program teacher-students. Students learn how to analyze arguments, evaluate, solve problems, work in teams, and communicate ideas to make decision through online project-based learning. The research employed a descriptive study with 30 English Education teacher-students enrolled in English Language Teaching Methods course at one of public university in Indonesia. The findings indicate that online project-based learning had developed students' critical thinking skills. It encourages the development of such skills (argumentation, evaluation and analysis). It is clear that virtual project-based learning methodology is more effective to develop students' critical thinking skills and greater understanding.

Keywords: Critical thinking · Online learning · Project-based

1 Introduction

In Indonesia, the development of critical thinking (CT) has been regarded as an essential goal of formal schooling. The role of CT in language instruction has increased in the 21st century, as research indicates it can both facilitate the acquisition of language skills and improve general language competency. Thus, promoting critical thinking for EFL student teachers in pedagogical content course, English Language Teaching Methods (ELT Methods), becomes significant. When EFL student teachers have had the concept of CT skills, they are used to analyzing and solving problem in certain situation [1]. It is known that critical thinking is recognized to be the use of cognitive skills or techniques to increase the chance of a desirable outcome and goal-directed since it contains problems solving, drawing inferences, calculating probability and making decisions [2]. When EFL teacher students acquire and effectively utilize these skills, they become more sophisticated thinkers. They can involve evaluation or judgment by providing valuable

S. Setiawan et al. (Eds.): IJCAH 2022, ASSEHR 724, pp. 992–1002, 2023.
https://doi.org/10.2991/978-2-38476-008-4_105

and accurate feedback to improve the thinking process. Thus, Lai writes that critical-thinking skills are often referred to as higher-order cognitive skills requiring analysis, evaluating, and synthesis. It is based on Bloom's taxonomy framework developed by Bloom and revised by Anderson in 2001.

In Indonesia, however, EFL student teachers lack critical thinking abilities. EFL student teacher had difficulties in analyzing or evaluating the complete reading content. They only comprehended 30% of the text, and they are unable to articulate their case in response to their reasoning prompt [3]. A study found that EFL student teachers' classes in Indonesia generally use conventional methods of teaching or what is commonly referred to as the traditional learning approach. The instructor plays a dominant role in the classroom's learning process [4, 5] that does not motivate students to become active learners. They preferred to follow teacher's instruction that made them highly passive learners and dependent on the instructor. Next, teachers' orientation of assessments provide rigid question-answer assessments since success is measured by who does the best memorization [6]. Additionally, Indonesian culture think that pass the examination is often considered the primary goal while critical thinking, problem solving, or creative thinking skills are treated as minimal.

When students are taught in a way that makes it unlikely that they will think about it, their minds revert to rote memorization, abandoning any attempt to understand the logic of what they are committing to memory [7]. As a result, the students have weak performance in giving opinions, reasoning, and solving problems [8]. The situation indicates that students have low levels of thinking skills and CT inclination. It showed that education system has relied heavily on rote learning. It does not emphasize on critical thinking that helps learner to think rationally on issues, to reflect on ideas and to make the clever choice out of different options [9].

Critical thinking skills are not expected to be inborn automatically since it is not instant knowledge to be taught [10] but they can be enriched with appropriate guidance and practice. Many scholars and studies have discussed the use of various strategies or methods to develop students' critical thinking skills in the classroom [10–12]. The instructors should be creative to design their teaching process to develop students' critical thinking skills.

Project-based learning (PjBL) is one educational method to promote students' critical thinking that emphasizes on improving students' ability to analyze, think critically, and communicate their arguments or ideas [13]. PjBL also encourages students to broaden their minds by promoting learning based on real-life projects, motivating them, and helping them improve their problem-solving and argumentation skills [14]. When students accomplish their projects, they will do 4R, namely reading, writing, arithmetic, and reasoning. Those activities can support students' CT skills since students must build their knowledge by reading texts before they create a project. When they have an interaction between students in creating a project, they can solve problem by giving reasoning and calculate the result or data by using arithmetic and finally they can write their report that support their both current and future skills [15]. In PjBL model, learners apply critical thinking in existing knowledge and experience to solve problems and make a reasonable judgment through reflection, analysis, and reasoning. Students who do not read a module, on the other hand, are unable to state their arguments and thus do not develop their

ability to think and quality of life. As a result, these students will not be absorbed into the workforce because the workforce requires critical thinkers. PjBL model also encourages how social interactions occur among learners and their learning environment and it will affect learning experiences. According to the Regulation of the Minister of Education and Culture Republic of Indonesia number 103 the year 2014.

Moreover, the rapid advancement of information technology, as well as advances in multimedia and network technology, has created a critical technical opportunity that has made the potential for constructivist learning via the Internet more feasible and easier to implement [16]. The present study utilizes an online platform as a medium for applying PjBL are gaining popularity as a supportive item in the learning process. Students who were involved in online project-based learning gained a deeper understanding of the knowledge and a higher level of problem-solving skills [17]. Hence, the combination between project-based and technology or Information Communication Technology is called online project-based learning [18, 19]. Online-Project-based learning can assist learners in acquiring continuous learning and encouraging them to be more independent since teachers provide them with a better opportunity for controlling and initiating their language learning [20, 21]. It also urges students to construct their knowledge or information and complete their course successfully both within and outside the classroom. Students should maintain it until their formal studies have been conducted [22]. Some empirical studies show that conveying online projects-based learning can support learners to find appropriate learning strategies to complete their projects and achieve their learning goals [23]. The learners can develop their communication by learning in group work. They learn how to deliver their opinion or ideas to complete their project in online learning [24]. Moreover, students have learned as if they are in an actual condition, so they have the competence and easily get a job [25] after they finish study. To sum up, online project-based learning could foster students' English skills and independent study. For example, blogging could develop students writing skills in EFL [26, 27]; digital video project or mini video could improve students' oral proficiency [28, 29]; YouTube video projects could impact the students' autonomy since they have awareness of self-identity and influence their surrounding environment [30].

Based on the explanation above, to fill the gap of the previous study, this research will focus on utilizing online PjBL to develop student teachers' CT skills. It is known that EFL student teachers should be encouraged to become active learners so they are able to deliver argument, analyze certain issue, making decision and creating innovative lesson plan for their future activities. This research has significant contribution for future EFL teachers to explore ways of encouraging students to express themselves creatively and critically in pedagogical aspects. Thus, the purposes of the study are to describe students' activities in an online-PjBL classroom and to develop students' CT skills in online PjBL classroom.

2 Method

This was case study project since the research aimed to describe the implementation of students' activities in accomplishing online-PjBL. It has also provided gain deeper understanding of the situation and context as well as the participants' personal interpretations and responses. Moreover, case study investigated how to better comprehend

some of the characteristics, affordances, and nuances of this complex learning environment for case study has emphasized on processes rather than outcomes. This study was conducted at English education department who enrolled English Language Teaching Methods course in second-semester in one of public university, in Surabaya Indonesia.

2.1 Research Questions

There are two research questions that guided the current study: (a) how can online-PjBL be implemented to foster students' critical thinking skills among EFL students? and (b) What do students do in an online-PjBL classroom to develop critical thinking?

2.2 Research Participants

Although, case study was not considered as an experimental design, students were informed of the research component during the first-class meeting. All of the students were strongly encouraged to take part in the study by signed informed consent forms. There were 30 participants who participated in this study. The names of the students' participants have been replaced with pseudonyms to protect their anonymity.

2.3 Collecting and Analyzing Data

Sources and data collection methods. Anecdotal records made by the teacher-researcher, field notes from classroom observation and phenomenological interview were the primary sources of data. Documents created by students were considered as the secondary source of data for they study. Participants must submit a number of documents, self-assessment, self-reflection, questionnaires and online project.

The data were analyzed through several steps, such as transcribed, coded, and categorized thematically. After that, all data should be outlined based on the following areas;

(a) reflect the goal of the study, (b) be exhaustive, (c) be mutually exclusive, (d) be sensitive, and (e) be conceptually congruent.

Triangulation was utilized to increase internal validity. Member checking was applied to strengthen the validity of this investigation. The process of member checking ensures that the research authentically reflect their opinions, activities, and voices of the participants. Respondents should reread their interview transcript to verify their responses. To avoid researcher' biases, the study employed additional methods.

3 Results and Discussion

3.1 Results

3.1.1 Online-PjBL Implementation Among EFL Students in Tertiary Education

Some steps should be followed to implement Online-PjBL for EFL students in tertiary education. These steps are based on PjBL syntax proposed by Regulation of the Minister of Education and Culture Republic of Indonesia number 103 the year 2014. Some steps

should be followed to implement online project-based learning to foster their critical thinking skills.

3.1.1.1 Selecting the Topic

In the first phase of PjBL, EFL student teachers are invited to explore many types of innovative of EFL Methods (e.g., genre-based learning, problem-based learning, PjBL, etc.) on the Internet or read many resources published in VINESA. They should read many resources to improve their knowledge and write their understanding in VINESA.

This preliminary inspection can be conducted alone, in small groups, or with the entire class. The instructor provides guidance and direction to filter innumerable options and steer students to relevant and useful stuff. The students provide concepts and specific options for their own research. The culmination of this procedure is the students' selection of a question for further in-depth research. The students' queries lead and immediately affect the nature and progression of the final project. A project may concentrate on the objectives of a single educational unit or skill, such as a YouTube video presentation or a concluding event. Learners must participate in the project's decision-making from the outset.

3.1.1.2 Designing and Making a Plan

The next step is designing and planning the project. After selecting a specific project, students collaborate to determine the steps necessary to complete it. The use of pre-project activities that offer problem-solving strategies, language for negotiation, and procedures for establishing plans is helpful for learners with low language competence who are part of a team and need structure and assistance during the project. Moreover, students are permitted to develop their own projects.

3.1.1.3 Doing Research and Creating Project

The third phase is conducting research. In order to accomplish their project and finding problem solving, students' must collect, analyze, and organize data. The students are then needed to complete or construct the project by utilizing the knowledge gained via the inquiry process. For instance, learners can collect information through interviews. They might occasionally practice asking questions and taking notes in order to obtain the data necessary to improve their assignment or project. The majority of education occurs during the phase of investigation and revision. The instructor has daily opportunity to communicate learning resources to the whole class. Typical activities during PjBL phase include skill acquisition and application, focus lessons, and small-group work, that students can receive guidance to help students' critical thinking skills. The use of additional exercises also helped students to focus students' concept and practice with the covered topics. During this phase, students began to develop their final projects.

Prior to presenting, students also engage in an intensive process of self- and peer-assessment. Self-assessment empowers learners to reflect on their individual learning processes and self-evaluated by concentrating on the strategies they used to respond to their questions.

3.1.1.4 Presenting and Evaluating

The final phase is communicating outcomes to others. Students presented their findings based on their research, practices, discoveries, and products to their peers in zoom

Table 1. Students' Activities in Online PjBL Approaches to Foster Critical Thinking skills

Online PjBL	Critical Thinking Skills	Students' Activities
Selecting the topic	Analyzing arguments	Choose one of ELT methods and techniques. Select one of English skills. Mention their reasons.
Designing and making a plan	Making Inferences	Work together to finish their project in team, such as finding learning materials or media that are relevant to students' characteristics
Doing research and creating project	Making decision Solving Problems	Creating learning materials and lesson plan based on chosen innovative ELT method and techniques. Practicing lesson plan in peer teaching and recording it Doing self-assessment and peer assessment
Presenting and evaluating	Clarification Interpretation	Presenting in YouTube or G-drive Writing self-reflection

meeting. When students present their project, it encourages processing of inquiry classroom where students can practice how to deliver question, giving arguments, respond to others or decide decisions. All the process of thinking skills can be practiced in this learning process. The purpose of showing the artifact is to receive input from peers and the instructor in order to improve the final product. All levels encourage students to be active thinkers and inventive individuals.

After the completion of the cycle, students are given time to reflect on the entire learning process experience and to prepare for future lesson. All students are encouraged to have self-reflection. It is importance for students to reflect on the learning practices and outcome to help learners plan future inquiry at this stage. Although online PjBL provides students with some guidance to help them accomplishing their project, it does not dictate the exact paths, they pursue students to be adaptative students and foster their critical thinking skills. Online-PjbL could make students to be dynamic, adaptable and creative.

3.1.2 Students' Activities Foster Their Critical Thinking Skills

In the preceding section, we examined how online PjBL techniques provide teachers and students with new positions and obligations. In this study, learners could examine and construct small group projects using a variety of EFL methodologies in order to strengthen their critical thinking skills. Table 1 demonstrates how online PjBL activities can strengthen students' critical thinking skills.

Table 2. Development Students' Critical Thinking Skills in Online Learning

Critical Thinking Skills	Indicators (%)			
	Poor	Fair	Good	Excellent
Analyzing arguments	17.3	43.5	39.1	0.0
Making inferences	30.4	56.5	13.0	0.0
Making decision	17.3	43.5	39.1	0.0
Solving problems	34.8	43.5	21.7	0.0
Clarification	39.1	47.8	13.0	0.0
Interpretation	43.5	39.1	17.3	0.0

The various types of exercises performed by students during online PjBL instruction can enhance critical thinking skills. Students are provided with recommendations for enhancing their critical thinking abilities. To foster learning motivation and independence, teachers must provide directives. Even if the formation of critical thinking abilities is a step-by-step process, it is possible for pupils to acquire these two components. It can become a habit for pupils to learn to improve critical thinking skills if they practice frequently.

On the basis of student activities and projects, results about the critical thinking abilities of English language students can be acquired, as shown in Table 2.

The level of critical thinking among English Education students remains strong in every aspect. This indicates that instructor aid in the learning process remains crucial. In general, prospective English teacher candidates have adequate abilities in understanding arguments, drawing inferences, making judgments, and solving issues. Nevertheless, based on Table 2, EFL student teachers with clarification and interpretation skills remain in adequate condition. This indicates that EFL student teachers have not been able to create engaging lesson plans and resources. They have been unable to present a lesson plan in a proper and accurate manner. When they were asked to practice the results of the lesson plans, they have prepared, they do not yet possess a strong sense of self-confidence since they feel anxious.

3.2 Discussion

On the basis of the preceding data, it is possible to argue that implementations of the Online PJBL approach in ELT Methods courses present both benefits and challenges for teachers and students. Online PjBL exercises encourage collaborative learning throughout the investigation of new knowledge in order to develop students' CT skills. It also requires students' responsibility to evaluate resources independently and in collaboration with others. Therefore, an instructor should not be the sole resource who understands everything about the ELT Methods course, but she ought to promote pupils' active engagement in discovering innovative kinds of technology and be open to learning from their pupils [31].

Moreover, it is believed that the online PjBL technique with the LMS VINESA promotes learners' critical thinking skills and self-regulated learning successfully for EFL student teachers [32]. LMS VINESA has created the opportunity for constructivist learning via the Internet, which can cultivate students' critical thinking skills, such as evaluating, drawing conclusions, and making decisions regarding real-world problems requiring solutions on a project.

In addition, students can use forums as asynchronous online discussion platforms to communicate, discuss, and address a particular issue [33]. In online engagement, students can practice debating, comparing, and challenging one another's arguments as part of their group work. By creating a project, they can also learn how to articulate their opinions. In the end, it can build a community of inquiry since students can discuss their perspectives and learn knowledge while completing their assignments whenever and wherever they choose [34]. In conclusion, while the online PjBL approach is not time-restricted, some instructional strategies attempt to foster critical thinking abilities. It may also maintain pleasant classroom environments, therefore in order to sustain group discussion, students must be receptive to the perspectives of others.

4 Conclusion

This study revealed that promoting EFL student teachers' critical thinking skills is not an easy way. It is required instructor' creativity in designing and implementing teaching and learning process. Online PjBL approach is one solution that can be implemented to foster critical thinking skills among students. The use of technology can improve teaching and learning methods and support students' learning. It is suggested that experimental study be conducted so that differences in students' critical thinking skills can be determined.

Acknowledgments. We would say thank you to Prof. Dr. Nur Hasan MSi, as the rector of Universitas Negeri Surabaya, who has funded this study. I would also like thank you to Ibu Pratiwi, the chairman of English Department, and all of my friends who assisted us in competing this research.

Authors' Contributions. All authors conceived the original idea. AS contribute to writing. All authors discussed and agreed with the main focus and ideas of this paper.

References

1. Y. Wei, "The impact of the digital learning on efl students' critical thinking disposition," *13th Int. Conf. Comput. Sci. Educ. ICCSE 2018*, pp. 640–643, 2018, https://doi.org/10.1109/ICCSE.2018.8468755.
2. D. F. Halpern, "Teaching critical thinking for transfer across domains.," *Am. Psychol.*, vol. 53, no. 4, pp. 449–455, 1998, https://doi.org/10.1037//0003-066x.53.4.449.
3. H. Lorencová, E. Jarošová, S. Avgitidou, and C. Dimitriadou, "Critical thinking practices in teacher education programmes: a systematic review," *Stud. High. Educ.*, vol. 44, no. 5, pp. 844–859, 2019, https://doi.org/10.1080/03075079.2019.1586331.

4. E. Zamroni, Muslihati, B. B. Lasan, and N. Hidayah, "Blended Learning based on Problem Based Learning to Improve Critical Thinking Ability of Prospective Counselors," *J. Phys. Conf. Ser.*, vol. 1539, no. 1, pp. 1–9, 2020, https://doi.org/10.1088/1742-6596/1539/1/012039.
5. Y. Yuliani and N. S. Lengkanawati, "Project-based learning in promoting learner autonomy in an EFL classroom," *Indones. J. Appl. Linguist.*, vol. 7, no. 2, pp. 285–293, 2017, https://doi.org/10.17509/ijal.v7i2.8131.
6. H. P. Widodo, "Engaging Students in Literature Circles: Vocational English Reading Programs," *Asia-Pacific Educ. Res.*, vol. 25, no. 2, pp. 347–359, 2016, https://doi.org/10.1007/s40299-015-0269-7.
7. F. C. Lunenburg, "Critical Thinking and Constructivism Techniques for Improving Student Achievement," *Natl. Forum Teach. Educ.*, vol. 21, no. 3, pp. 1–9, 2011, [Online]. Available: http://www.nationalforum.com/Electronic Journal Volumes/Lunenburg, Fred C. Critical Thinking & Constructivism V21 N3 2011 NFTJ.pdf.
8. R. N. Indah and A. Kusuma, "Factors Affecting the Development of Critical Thinking of Indonesian Learners of English Language," *J. Humanit. Soc. Sci.*, vol. 21, no. 6, pp. 86–94, 2016, https://doi.org/10.9790/0837-2106088694.
9. P. A. Facione, "Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction. Research Findings and Recommendations," 1990.
10. X. Wang and H. Zheng, "Reasoning Critical Thinking: Is It Born or Made?," *Theory Pract. Lang. Stud.*, vol. 6, no. 6, pp. 1323–1331, 2016, https://doi.org/10.17507/tpls.0606.25.
11. F. Miri and D. B. Azizi, "The Effect of Teaching Critical Thinking on Iranian EFL Learners' Essay Writing," *Theory Pract. Lang. Stud.*, vol. 8, no. 5, pp. 509–515, 2018, https://doi.org/10.17507/tpls.0805.08.
12. X. Liu and T. Yao, "The Cultivation of College Students' Critical Thinking Ability Based on Task-based Cooperative Writing," *J. Lang. Teach. Res.*, vol. 10, no. 3, pp. 557–568, 2019, https://doi.org/10.17507/jltr.1003.20.
13. H. Sadeghi, M. Biniaz, and H. Soleimani, "The Impact of Project-Based Language Learning on Iranian EFL Learners Comparison/Contrast Paragraph Writing Skills," *Int. J. Asian Soc. Sci.*, vol. 6, no. 9, pp. 510–524, 2016, https://doi.org/10.18488/journal.1/2016.6.9/1.9.510.524.
14. A. Affandi and D. Sukyadi, "Project-Based Learning and Problem-Based Learning for EFL Students' Writing Achievement at the Tertiary Level," *Rangsit J. Educ. Stud.*, vol. 3, no. 1, pp. 23–40, 2016, https://doi.org/10.14456/rjes.2016.2.
15. L. Sirisrimangkorn, "The Use of Project-based Learning Focusing on Drama to Promote Speaking Skills of EFL Learners," *Adv. Lang. Lit. Stud.*, vol. 9, no. 6, p. 14, 2018, https://doi.org/10.7575/aiac.alls.v.9n.6p.14.
16. J. Ravitz, N. Hixson, M. English, and J. Mergendoller, "Using project based learning to teach 21 st century skills : Findings from a statewide initiative," *Annu. Meet. Am. Educ. Res. Assoc.*, no. April, pp. 1–9, 2012.
17. P. S. Cholifah, H. I. Oktaviani, N. L. S. Nuraini, A. M. Meidina, R. F. Wanodyaningtiyas, and E. Yafie, "Online Project-Based Learning for Improving the Innovative Initiation during Diffusion and Innovation Course," *2019 5th Int. Conf. Educ. Technol. ICET 2019*, pp. 55–60, 2019, https://doi.org/10.1109/ICET48172.2019.8987221.
18. K. Figura and H. Jarvis, "Computer-based materials: A study of learner autonomy and strategies," *System*, vol. 35, no. 4, pp. 448–468, 2007, https://doi.org/10.1016/j.system.2007.07.001.
19. C. G. Ogbonna, N. E. Ibezim, and C. A. Obi, "Synchronous versus asynchronous e-learning in teaching word processing: An experimental approach," *South African J. Educ.*, vol. 39, no. 2, pp. 1–15, 2019, https://doi.org/10.15700/saje.v39n2a1383.
20. A.-A. S. Alsamani and A. S. Daif-Allah, "Introducing Project-based Instruction in the Saudi ESP Classroom: A Study in Qassim University," *English Lang. Teach.*, vol. 9, no. 1, p. 51, 2015, https://doi.org/10.5539/elt.v9n1p51.

21. M. de F. Goulão and R. C. Menedez, "Learner Autonomy and Self-regulation in eLearning," *Procedia - Soc. Behav. Sci.*, vol. 174, pp. 1900–1907, 2015, https://doi.org/10.1016/j.sbspro.2015.01.853.
22. A. Farivar and A. Rahimi, "The Impact of CALL on Iranian EFL Learners' Autonomy," *Procedia - Soc. Behav. Sci.*, vol. 192, pp. 644–649, 2015, https://doi.org/10.1016/j.sbspro.2015.06.112.
23. J. Broadbent and W. L. Poon, "Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review," *Internet High. Educ.*, vol. 27, pp. 1–13, 2015, https://doi.org/10.1016/j.iheduc.2015.04.007.
24. E. Zouganeli, V. Tyssø, B. Feng, K. Arnesen, and N. Kapetanovic, "Project-based learning in programming classes – the effect of open project scope on student motivation and learning outcome," *IFAC Proc. Vol.*, vol. 47, no. 3, pp. 12232–12236, 2014, https://doi.org/10.3182/20140824-6-ZA-1003.02412.
25. B. S. Indriyana and P. Kuswandono, "Developing Students Higher Order Thinking Skills (HOTS) in Reading: English Teachers Strategies in Selected Junior High Schools," *JET (Journal English Teaching)*, vol. 5, no. 3, p. 204, 2019, https://doi.org/10.33541/jet.v5i3.1313.
26. I. H. Sa'diyah and B. Y. Cahyono, "Effect of Project-Based Learning through blogging on EFL students' writing ability," *J. English as a Foreign Lang.*, vol. 9, no. 2, pp. 199–216, 2019, https://doi.org/10.23971/jefl.v9i2.1341.
27. A. Bhattacharya and K. Chauhan, "Augmenting learner autonomy through blogging," *ELT J.*, vol. 64, no. 4, pp. 376–384, 2010, https://doi.org/10.1093/elt/ccq002.
28. S. Sumardi, R. 'Adzima, and A. N. Wijaya, "Digital Video Project: An Authentic Assessment to Assess Students' Speaking Skills," *Indones. J. EFL Linguist.*, vol. 5, no. 1, p. 57, 2020, https://doi.org/10.21462/ijefl.v5i1.217.
29. I. G. Ngurah and A. Wijaya, "Camera Roll , Action ! Non-specialist Undergraduate English Learners ' Perceptions of Using Video Production in Learning English Camera Roll , Action ! Non-specialist Undergraduate English Learners ' Perceptions of Using Video Production in Learning Engli," vol. 18, no. 3, 2021.
30. I. K. A. Sari, Yuli Ifana, Sumarmi, Dwiyono Hari Utomo, "The Effect of Problem Based Learning on Problem Solving and Scientific Writing Skills Yuli," *TInternational J. Instr.*, vol. 14, no. 2, pp. 11–27, 2021, https://doi.org/10.4324/9781315193526-9.
31. Y. C. G. Mali, "Efl Students' Experiences in Learning Call Through Project Based Instructions," *TEFLIN J. - A Publ. Teach. Learn. English*, vol. 28, no. 2, p. 170, 2017, https://doi.org/10.15639/teflinjournal.v28i2/170-192.
32. N. R. D. N. Adhi, "Students ' Creative Thinking Abilities and Self Regulated Learning on Project-Based Learning with LMS Moodle," *Unnes J. Math. Educ. Res.*, vol. 8, no. 1, pp. 1–8, 2018.
33. D. M. Osborne, J. H. Byrne, D. L. Massey, and A. N. B. Johnston, "Use of online asynchronous discussion boards to engage students, enhance critical thinking, and foster staff-student/student-student collaboration: A mixed method study," *Nurse Educ. Today*, vol. 70, no. January, pp. 40–46, 2018, https://doi.org/10.1016/j.nedt.2018.08.014.
34. D. Guignion, "Jordan Peterson and the (F)law of 'Scientific Inquiry": A Critical Evaluation of Peterson's Use of Science and Philosophy in His Conquest Against Social Justice,'" *Polit. IAPSS J. Polit. Sci.*, vol. 41, no. June, pp. 7–23, 2019, https://doi.org/10.22151/politikon.41.1.