



Unveiling students' writing argumentative essays barriers in online learning

Eko Suhartoyo, Dwi Fita Heriyawati, Febti Ismiatun

English Education Department, Faculty of Teacher Training and Education, Universitas Islam Malang, Jl. Mayjend Haryono 193, 65144, Malang, Indonesia

Corresponding author: suhartoyoeko@unisma.ac.id

ARTICLE INFO

Article history:

Received 24 November 2021

Accepted 18 December 2021

Available online 28 December 2021

Keywords:

Argumentative essay, barriers, online learning, writing

DOI: 10.26905/enjourme.v6i2.6701

How to cite this article

(APA Style):

Suhartoyo, E., Heriyawati, D.F., & Ismiatun, F. (2021). Unveiling students' writing argumentative essays barriers in online learning. *EnJourMe (English Journal of Merdeka) : Culture, Language, and Teaching of English*, 6(2) 142-151. doi: <https://doi.org/10.26905/enjourme.v6i2.6800>

ABSTRACT

Due to the closure of Schools and Higher Education Institutions (HEIs), HEIs had shifted the teaching and learning method from face-to-face to Screen-based learning, such as the use of Learning Management System or Moodle, and other applications. Moreover, screen-based learning, such as the use of Learning Management System or Moodle, and other applications the EFL students' writing argumentative essays barriers in online learning as well as their learning strategies as alternative solutions to cope with them. The research employed descriptive qualitative design. The participants were six EFL students from the fifth semester who experienced writing argumentative essays during pandemic. The instrument used to gather the data was depth interviews about the issue of research. After analysis, it exposed three barriers in writing argumentative essays made by the participants, namely unusualness on the implementation of e-learning for writing, low bandwidth while learning, and students' discouragement on writing argumentative essays. To overcome the barriers, students must be given a brief simulation previously before attending the real-time class, making classification and analogy for the complex materials up to the simple one, and get a relaxation during the argumentations class. So, it becomes a crystal clear that teacher must assist students to be aware of their weaknesses in writing argumentative essay class so that they can be more creative in writing. Besides, students are expected to be able to solve their barriers by maintaining well communication among the teachers and classmates to sharpen their understanding and implement the best learning styles individually.

©2021 The Authors. Published by University of Merdeka Malang
This is an open access article distributed under the CC BY-NC-ND 4.0
(<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

1. Introduction

It has been two years since the Indonesian ministry of education announced the Schools and Higher Education Institutions (HEIs) closure due to the pandemic of novel SARS-CoV2 infection. HEIs had discontinued face-to-face teaching. The closure has also shifted the teaching and learning method from face-to-face to online learning. HEIs lecturers had also tried to find various initiatives and to make proper yet timely modification in order to keep continuing the learning activities and sustaining the students' academic progress. One of strategies to support distance learning is online

learning. Online learning promotes effectiveness since it accommodates a set of technologies such as world wide web, email, chat, audio and video conference via internet to cope with the knowledge, to improve student learning outcomes while struggling with lack of sources (Medford, 2004; Simamora, 2020).

Online learning provides materials, virtual communication, and remote activities to teachers and students. In HEIs, online education is a novel method of instruction. A course management system may be used as the primary mode of education for students and lecturers to study online. Transitioning from face-to-face to online teaching brings about both some surprises as well as advantages and some challenges.

Generally, Perveen (2016) categorized online learning into three learning environments, namely synchronous learning environment, asynchronous learning environment, and hybrid learning environment. First, the synchronous learning environment is situated where the learners present on live lectures. Practically, there are real-time interactions between educator and learners, and there are chances of instant feedback, live discussion, and live correspondences in the forms of video conferencing, teleconferencing, live chatting, and live streaming lectures (Rinekso & Muslim, 2020). Second is asynchronous learning where the learning environments are not properly arranged. The asynchronous learning environments are not time bound. It means that learners can learn without limitation by time, place, and classroom (Mayadas, 1997). In such a learning environment, learning materials are not accessed during live lectures however. The learning materials are available at different learning systems and forums. Unlike synchronous environments, instant feedback, live discussion, and live correspondence are not situated in asynchronous learning. The last is hybrid learning environment where synchronous and asynchronous learning are combined (Rinekso & Muslim, 2020).

Online learning environment is considered a boon for three reasons (Medford, 2004). The first reason is accessibility. Online learning promotes accessibility since learners can learn from anywhere. Learners from remote, even from abroad, areas can easily access education regardless of distance, time and space since all learning is through online. Second is flexibility. The system of online learning enables learners to know and decide their own learning styles, aims of study, as well as content knowledge. Having individuals learn at their own pace is considered a flexible learning environment. Consequently, it boosts learners' motivation, self-confidence and self-esteem, decreases learners' barriers, promotes widen access and improves learners' learning experience. The last is to develop learners' cognitive abilities. Learners of e-learning programs had higher achievement levels than their counterparts. A learner can find unlimited information which he can access just by the click of a button. Many Online programs are offered by some of the most prestigious universities from all around the world. The student can take such a course online which can be helpful for the development of his cognitive abilities.

Even though online learning promotes convenience and flexibility for learners, it presents several challenges (Keengwe & Georgina, 2012; York et al., 2007). Frequently, online education is no more than instructor notes and lecture materials posted on a Web site, perhaps with some required discussion. Much online instruction is designed, developed, and delivered without careful consideration of foundational instructional design principles. Research has shown that online courses that

lack substantive and meaningful interaction, coupled with a sense of presence (feeling as though belonging in a virtual environment), contribute to a sense of isolation, unsatisfying learning experiences, and high dropout rates.

Moreover, the need to move all classes online has caused confusion. Not only are the lecturers confronted with the lack of knowledge and skills of online learning, but many students are also not adequately familiar with this system. Inadequate knowledge and experience in online teaching and learning enables teachers to deliver materials ineffectively (Chiu, 2021). In addition, the potential transfer knowledge gap often occurs during online learning since the students' needs are not supported due to the teacher's lack of familiarity with their students' home learning environments.

The integration of technology in teaching and learning process has developed the concept of blended learning. Blended learning concerns with the instruction that enable teachers and students to build interaction both online and offline meeting. Online meeting can be in a form of Zoom, Google Classroom, Skype, Discussion Forum or Google Meet. This online tool opens broader opportunities to place learning beyond the habits. The key point of blended learning is not only conducting learning process in the online ways, but also integrating the most suitable technology and instruction in the learning process (McCarthy, 2016). Therefore, a set of activities including in the blended learning should help students to achieve the learning objectives.

One of the instructional methods which is in line with blended learning is the flipped-classrooms. This method reverses the traditional teaching method that it carries activities conventionally in class into those done at home. One of the main features of a flipped-classroom is the usage of online videos uploaded is a pre-class activity to replace an old-style in-class lecturing. Through this method, students are well-prepared for the resources they study in class. Many researches have founded the chances and encounters of the engagement of flipped-teaching (McCarthy, 2016; Sun & Wu, 2016; Zainuddin & Halili, 2016).

Based on HEIs, English is a required course in the tertiary education level. English subject must be educated at universities or colleges as a required subject. On the other hand, it is quite challenging for Indonesian students to master English skill, especially in writing argumentative essays. Indeed, the EFL students are required to compose argumentative essays as a prerequisite before graduating from university levels. During composing an argumentative essay, students need to take several stages to produce a good argumentative essay. In general, Abas and Aziz (2017) stated five steps of writing, namely; prewriting, planning, drafting, revising, and editing stages. Harmer (2004) states that good writing should cover several steps, including planning, drafting, editing, and writing the final version. And a good argumentative essay follows those above-mentioned stages of writing.

During the implementation of online learning, learning argumentative essays has taken so many problems and strategies for the students. The availability of internet connection, the availability of computers, and the minimum time span on every meeting are the problems. These hinders should be minimized to provide more chances for Indonesian students to construct more effective argumentative essays. With the whole opportunities that a flipped-classroom has, it can be preserved as an upright instructional method to deal with the problems outlined before. Also, research that investigates students' views on a flipped-classroom in the Indonesian setting is sparse. Therefore, the current

study aimed at investigating students' major problem in writing argumentative essays and to investigate students' learning strategies preference in writing argumentative essays during online learning.

The argumentative essay is a kind of writing that needs some investigations, collections, evaluations and establishments the topics in the concise manners. Some confusion might raise between argumentative essays and expository essays. Even though those two kinds of genres look similar, but they have actually different characteristic. The argumentative essays generally more complex and are used in a more formal ways or writing, such as academic writing, but the expository essays are less scientific.

Oshima and Hogue (1998) defined five approaches to write argumentative paragraph and deemed effective to be applied in writing. The approach focuses on constructing the introduction, showing evidence in the body paragraphs that includes the oppositions and supports, and conclusion of the paragraph. Argumentative is previously discusses as writing genre that focuses on formal and academic writing. It is emerged in the form of research which needs empirical study such as doing interviews, observations, surveys or experiments. Detail research can be meant by constructing the complete arguments as regards stating the positions, supports and evidence.

The argumentative essay has several structures characterized. The first one is concise in meaning and clear in the thesis statement that is put at the early of the argumentative paragraph. In other words, it must reflect the review of topic in the general ways. The second is the explanation why the thesis statement is highly crucial to build. The last is presenting the effective thesis statement that has been narrowed based on the argumentative essay guidelines. By doing these steps, the composition of argumentative essay will be persuasive.

The second one is clear and reasonable shifts between the overview section, content of paragraph, and deduction. Transitions are the filling that holds the substance of the organized essay. Without rational development of thought, the reader is unable to track the essay's argument which impact to ineffective argumentative essays. The changes should cover up the content from the previous sections and present the idea followed in the next section. Third, body of the paragraphs that must include the evidential support.

Every paragraph in argumentative essay must also be limited by the discussion of the thesis statement. Moreover, the shortness ease to create the readability for one's addressees. It is prominent to take note that every paragraph must consist of reasonable statements to the thesis statement. In other words, the body of paragraph also explains how and why the evidence works to support the thesis statement or warrant.

Though, the argumentative essays should also reflect and clarify the distinct ideas as regard with the topic. Considering the body, students should provide one or more paragraphs in the argumentative essays that discuss the support and the contrast rather than explaining that the outright is wrong or inappropriate. In addition, in writing argumentative essays, students must be aware of unwell information or statement that make the essays ineffective.

The fourth is providing the evidence to support the thesis statement, whether it is logical, anecdotal, statistical or factual evidence. It needs well-formed of academic writing, or known as researched, detail, accurate, and must be up to date. In this part, students must be able to think and

build the variety of ideas to proof the evidence. Based on the aforementioned, it can be inferred that good argumentative essays must construct the opinions by informing the readers or addressers to be well-informed rather than align the thesis statement.

The last part is about concluding. Concluding paragraph is not restating what the author wrote in the body of argumentative essays. It must emphasize and readdress the evidence provided in the previous parts. Students still struggle to construct the conclusion since it becomes another crucial part in argumentative essay. It does mean that reader will probably understand the essay through reading the conclusion rather than scrutinizing the whole body of essays. In other words, writing a good conclusion means leaving the most immediate impression to the readers. Therefore, conclusion must consist the logical and effective ways such as restating the topics, why it is crucial, reviewing the main points as well as the thesis statement.

Speedy developments of technology nowadays have shifted the access of education easy as well as broke the limitation that hinder so far (McBrien et al., 2009). Most of areas in technology such as web-based learning, computer-mediated learning, m-learning, blended learning, online learning and open learning, have been in common and applied connected by internet network so that it offers students to learn at anywhere and anytime (Cojocariu et al., 2014). Besides the simplicity that owned by technology, it also directs the process of teaching and learning more student-centered, more innovative, and flexible.

Online learning, according to Singh and Thurman (2019), is a system that integrates couple of ways such as synchronous or asynchronous tools using the devices like smartphone, computer and others connected with internet network. Using these tools, students can also be independent since such devices can be brought anywhere so that students can learn without attending to the place offline. As well, this situation can ease the instructors and students to interact each other. In other words, using devices, an online learning still guarantee the students' engagement in the online class activities. Moreover, online tools provide teachers to give the direct feedback in a real-time interaction, especially in the synchronous learning. While through the asynchronous tools, teachers are able to remain share the feedback with the students by discussion forums, chatting and texting (Perveen, 2016). Or in the other words, such learning environment gives chance for social activity (McBrien et al., 2009). In a nutshell, the online platforms supports the activities in education like video conference that can consist of more than 50 participants inside, feature of discussion in the forum or chat box, the platform can easily access in both laptop and smartphone, recording the real-time class, direct feedback and interaction among students and teachers, and all the activities are done with good connection (Basilaia, 2020).

2. Method

To explore students' argumentative essays problems in online learning, the researcher conducted descriptive qualitative research for three reasons. First, it intended to comprehend and interpret natural events occurring in lives as individuals or groups. In this setting, this research aims to comprehend students' problems in writing argumentative essays which occurred in natural events, i.e. learning process in online learning. Therefore, the researcher administered an in-depth interview in order to reveal students' problems in writing argumentative essays to gain perspective on writing challenges.

2.1. Participants

6 participants were recruited to this study (5 females and 1 male) who took Writing III course in English education department, Faculty of Teacher Training and Education, University of Islam Malang. Moreover, the 5 participants took the Writing III course in the third semester during the implementation of online learning in the 2020/2021 academic year. They were familiar with using both synchronous learning tools such as Zoom and Google Meet and asynchronous learning tools like Edmodo, Google Classroom, and Online Learning Management System (LMS). The reasons the researcher chose the participants were due to their availability and cooperation for the interview.

Table 1: The participants' demography

Factors	Total participants in N	Total participants in %
<i>Gender</i>		
Male	1	16.66%
Female	5	83%
<i>Semester</i>		
Fifth semester	6	100%
<i>Users' online Learning Experience</i>		
Zoom	3	50%
Google Classroom	5	83%
WhatsApp	2	33.33%

2.2. Instruments

In-depth interviews were used to investigate the challenges during online learning, especially in writing argumentative essays. To lead the data collection, researchers focused on asking about the level of participants' understanding on writing argumentative essays and the barriers that hinder them to improve their writing.

2.3. Data Analysis

The interview results were then analyzed through some steps by following (Pazooki et al., 2018). First, the talking data were listened to convey the participants' responses to the interview questions. Then, all data were transcribed and classified. Third, after making classification, researchers interpreted in a meaningful way related to the barriers in writing argumentative essays. To end the analysis, researchers asked the participants about the data correctness for verification.

3. Result and discussion

This research discussed EFL students' writing argumentative essays barriers in online learning and the EFL students' learning strategies preference in writing argumentative essays during online learning. Furthermore, the qualitative data regarding EFL students' writing argumentative essays

barriers and EFL students' learning strategies preference in writing argumentative essay during online learning are presented as follows:

3.1. Students' understanding of Argumentative Essays during online learning

The result of interviews by six participants were documented and the names were alternated to the pseudonym. Six participants were requested first question of "When did you start understanding the argumentative essay during online learning?" and each of their answer is as below:

- SLF : "I understood argumentative essay when my group was presenting the argumentative material"
- FRF : "Frankly speaking I forgot the exact meeting, as I remember, I understood the material when the lecturer asked us to find the examples of argumentative essay and when we start figure out the outline and generic structure by ourselves"
- NLF : "Frankly speaking I forgot the exact meeting when I started composing my own argumentative essay but the composition I made didn't meet the proper criteria of argumentative essay and after I revised my first prompt many times"
- NKF : "Frankly speaking I forgot the exact meeting, but I do remember and start to understand when we figure it out in a small team analyzing an argumentative essay. After that, we were directly asked to compose an argumentative essay. We also were asked to analyze the argumentative essay"
- KSF : "My responses are similar to FRF responses since we were classmates. However, I started to understand when lecturer asked us to find argumentative essay and to create our own topic and revise it to lecturer"
- RDM : "When the lecturer introduced us to the various patterns of the argumentative essay."

3.2. Students' barriers in writing Argumentative Essays during online learning

The second question of "What barriers hinder you from writing argumentative essays during online learning?" was asked to the six participants, and their responses are as follows:

- SLF : "When we were asked to analyze the argumentative essay, and when we were asked to create a thesis statement towards the given topic. Another is when I experienced signal loss. And I expect the lecturer to send us the recording meetings. The next barrier is that when I was asked to assist my parents at home to babysit my younger brother/sister"
- FRF : "When I had experience revising the title of AE many times. The easiest part was when we experienced peer to peer activity, and also I didn't experience technical problems. Before we started composing AE, we first made the outline based on the title. We were also given freedom to select our own pattern. I wasn't able to concentrate very well when I was asked to babysit my younger sister"
- NLF : "When we (me and my partner in a small group) experienced technical problems, and also when we were given freedom to pick our own topic, we still lacked knowledge of

argumentative essays. Also, when I was in the middle of zoom meeting, my neighbor was about to check the sound system loudly”

NKF : “I experienced similar responses with NLF. Basically it was difficult to find our topic of interest, thus we read many news reports containing controversial topics. The next barrier was that it was difficult to find expertise as our support/evidence to be interviewed as external sources since the lecturer suggested we interview a certain person. The next barrier was due to the sort of communication and collaboration with my partner”

KSF : “I shared a similar barrier with FRF, I experienced many revisions. Then I directly send my revision to the lecturer via personal WhatsApp. The revision was given in the form of a voice note. The other next problem was due to the signal wasn’t too powerful”

RDM : “Generally my responses are similar to NLF. I expected face to face learning since we had little experiences during online learning especially in writing argumentative essay”

3.3. Discussion

The study identified the several key barriers encountered by students when writing the argumentative essays when it is integrated with e-learning, or known as technology. Previously, the similar studies focused on seeking out the possible barriers in the setting of teaching argumentative essays. While, this present study investigates the comprehension to fill the questions as regard with students’ barriers based on the students’ viewpoints, especially in e-learning.

The three key main barriers found in this study are 1) the unusualness on the implementation of e-learning for writing. Learning writing, especially in argumentations, becomes a challenge for students to study. Because students do not obtain the direct feedback from the teachers so it is considered to reduce the level of understanding. According to Latifi et al. (2021) that direct and peer feedback enables students to improve the quality of writing because students feel confident to revise the mistakes in writing. Personal contact incorporates students to get interaction with teachers, improves the comprehension on teacher’s feedback, increase convenience to make a better writing on argumentative essays. 2) Low bandwidth while learning is another contributing factor that hinder students to learn well. Writing an argumentative essay requires a lot of reading activities in order to obtain the input of knowledge to make arguments, whether they are supporting, comparing or contrasting statements. 3) Students’ discouragement on writing argumentative essays turns to be the last barrier faced by the students. Feeling under the pressure of making the arguments in English discourages students to write well. Indirectly, their writing ability will be automatically low. Thus, the worries that might raise in their brains must be handled to create learning to be more effective. In line with Cho and Berge (2002) that the components that contribute the barriers in writing argumentations are the lack of utilization on the use of technology as well as the internet in online learning. They further stated that the low internet connection became the other reasons why students perceived the difficulties in learning. Moreover, the real-time activity, both of synchronous and asynchronous tools, need big package of internet data.

Internet connection is now turning to be so prominent because that thing becomes the main requirement to continue learning. In Indonesia, the data package of internet is quite expensive and

not all students can purchase to fulfil their learning needs. Another barrier might raise when students live in the remote areas in which the internet connection is not stable. Katz et al. (2019) revealed the digital inequality from one area to another might impact to the quality of connections. They emphasized that the significant use of internet may increase the opportunities to learn.

4. Conclusion

Whilst, because of the pandemic of Covid-19, schooling around the world, including Indonesia, are gradually finding the most suitable approach to construe the teaching and learning process as well as maintain students to keep learning. Numerous strategies have been applying by the government and school administrators to facilitate students learning. In fact, the practical use of certain strategy might not work best, especially in writing an argumentative essay. The barriers raised based on the students' point of view. The first barrier is the unusualness on the application of e-learning for writing argumentative essays. It can be a challenge for students to study since they do not obtain the direct feedback from the teachers so it is considered to reduce the level of comprehension. The second is the insufficient of internet bandwidth while learning to be another contributing factor that hinder students to learn well. The last barrier is students' discouragement or feeling worry in writing the argumentative writing. This research also offers the alternatives to solve the problems such as consider the learning objectives and students' learning styles, give direct feedback of the students' writing task, keep more interaction to ensure the students' understanding, convert the video which has big file in to the audio. Last but not the least that the upcoming researchers is recommended to develop the most appropriate use of technology to maintain the online learning process.

5. References

- Abas, I. H., & Aziz, N. H. A. (2017). Classification of L2 writing process and writing strategies. *Proceedings of the ICECRS*, 1(1), 367–380. <https://doi.org/10.21070/picecrs.v1i1.505>
- Basilaia, G. (2020). Replacing the classic learning form at universities as an immediate response to the COVID-19 virus infection in Georgia. *International Journal for Research in Applied Science and Engineering Technology*, 8(3), 101–108. <https://doi.org/10.22214/ijraset.2020.3021>
- Chiu, T. K. F. (2021). Applying the self-determination theory (SDT) to explain student engagement in online learning during the COVID-19 pandemic. *Journal of Research on Technology in Education*, (2021), 1–17. <https://doi.org/10.1080/15391523.2021.1891998>
- Cho, S. K., & Berge, Z. L. (2002). Overcoming barriers to distance training and education. *Education at a Distance [USDLA Journal]*, 16(1), 1–12.
- Cojocariu, V.-M., Lazar, I., Nedeff, V., & Lazar, G. (2014). SWOT analysis of e-learning educational services from the perspective of their beneficiaries. *Procedia - Social and Behavioral Sciences*, 116(August 2013), 1999–2003. <https://doi.org/10.1016/j.sbspro.2014.01.510>
- Harmer, J. (2004). *How to teach writing* (p. 162).
- Katz, V. S., Moran, M. B., & Ognyanova, K. (2019). Contextualizing connectivity: how internet connection type and parental factors influence technology use among lower-income children. *Information Communication and Society*, 1–24. <https://doi.org/10.1080/1369118X.2017.1379551>

- Keengwe, J., & Georgina, D. (2012). The digital course training workshop for online learning and teaching. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-011-9164-x>
- Latifi, S., Noroozi, O., Hatami, J., & Biemans, H. J. A. (2021). How does online peer feedback improve argumentative essay writing and learning? *Innovations in Education and Teaching International*, 1–13. <https://doi.org/10.1080/14703297.2019.1687005>
- Mayadas, F. (1997). Asynchronous learning networks: A Sloan Foundation perspective. *Journal of Asynchronous Learning Network*, 1(1), 1–16. <https://doi.org/10.24059/olj.v1i1.1941>
- McBrien, J. L., Jones, P., & Cheng, R. (2009). Virtual spaces: Employing a synchronous online classroom to facilitate student engagement in online learning. *International Review of Research in Open and Distance Learning*, 10(3), 1–17. <https://doi.org/10.19173/irrodl.v10i3.605>
- McCarthy, J. (2016). Reflections on a flipped classroom in first year higher education. *Issues in Educational Research*, 26(2), 332–350.
- Medford, A. R. L. (2004). Online learning. *Quality in Primary Care*, 12(1), 87–89. <https://doi.org/10.4324/9780429355097-7>
- Oshima, A., & Hogue, A. (1998). *Writing academic English, Fourth Edition*. In Longman.
- Pazooki, I., Hakhverdian, A., Moghadam, M. Y., & Daraei, R. (2018). The effect of developing test-wiseness on Iranian EFL learners' listening comprehension and test anxiety. *International Journal of Advanced Multidisciplinary Scientific Research*, 1(9), 10–20. <https://doi.org/10.31426/ijamsr.2018.1.9.912>
- Perveen, A. (2016). Synchronous and asynchronous e-language learning: A case study of virtual University of Pakistan. *Open Praxis*, 8(1), 21–39. <https://doi.org/10.5944/openpraxis.8.1.212>
- Rinekso, A. B., & Muslim, A. B. (2020). Synchronous online discussion: teaching English in higher education amidst the covid-19 pandemic. *JEES (Journal of English Educators Society)*, 5(2), 155–162. <https://doi.org/10.21070/jees.v5i2.646>
- Simamora, R. M. (2020). The challenges of online learning during the COVID-19 pandemic: An essay analysis of performing arts education students. *Studies in Learning and Teaching*, 1(2), 86–103. <https://doi.org/10.46627/silet.v1i2.38>
- Singh, V., & Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Education*, 33(4), 289–306. <https://doi.org/10.1080/08923647.2019.1663082>
- Sun, J. C. Y., & Wu, Y. T. (2016). Analysis of learning achievement and teacher-Student interactions in flipped and conventional classrooms. *International Review of Research in Open and Distance Learning*, 17(1), 79–99. <https://doi.org/10.19173/irrodl.v17i1.2116>
- York, C. S., Yang, D., & Dark, M. (2007). Transitioning from face-to-face to online instruction: How to increase presence and cognitive/social interaction in an online information security risk assessment Class. *International Journal of Information and Communication Technology Education (IJICTE)*. <https://doi.org/10.4018/jicte.2007040105>
- Zainuddin, Z., & Halili, S. H. (2016). Flipped classroom research and trends from different fields of study. *International Review of Research in Open and Distance Learning*, 17(3), 313–340. <https://doi.org/10.19173/irrodl.v17i3.2274>