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Face-to-face or online learning: Students' perspectives on blended learning in Indonesia

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Article Info

Abstract

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The implementation of and investigation on blended learning (BL) continues to grow and encouraged in many contexts of EFL teaching. This survey study attempts to enrich discussion on students' perspective the on the implementation of BL in the context of higher education. While previous studies commonly focus on a specific class of students and broadly divide the BL discussion as online and face to face modes, this study dig further into five situations of BL and involves wider and more heterogeneous participants. The respondents of this study were 75 students from three tertiary institutions in Indonesia. The data were collected utilizing a questionnaire which was adapted from and developed based on the Perception on Learning Environment Questionnaire (PLEQ) II to meet this present context of the study. Thematic analysis of five possible situations of blended learning resulted in the identification of the attributes that hinder and facilitate learning in the context of BL from the perspective of the students. This study indicated that students preferred and felt that they learned better in face to face session. The students acknowledged advantages but found online sessions more problematic. The study also confirms the self-regulatory attribute as a vital component in blended learning. The findings imply that blended learning, as opposed to blended teaching, requires careful tailoring to meet specific context and purpose of learning.

INTRODUCTION

Blended Learning has been widely accepted as 'a new normal' instructional practice (Norberg, Dziuban, Moskal, 2011) but the attempts to look for the right blend formula are still ongoing through continuous quality evaluation. Quality evaluation of BL implementation, particularly in higher education, requires dialogue between elements at the macro-level (inspectorate, accreditation bodies), meso-level management) and micro-level (faculty and students). (Blieck

et al., 2018). Jung (2011) observed that the existing model for BL have considered the perspective of the provider (macro and meso-level) but students were usually not consulted.

As a part of the continuous quality assessment of BL, students' perspective has to be put into consideration. Students' voices as have been captured in previous studies by Wright (2016), Al Zumor, Refaai, Eddin, and Rahman (2013), and Sari and Wahyudin (2018) provided illustration on the strengths and challenges of BL which eventually lend a valuable body of implication for future BL design and implementation. In addition to the list of benefits of and problems commonly found in each mode of blended learning i.e. face to face and online learning, those studies forwarded some points of considerations which mainly center at forming a well-rounded lesson of online mode in particular and establish a quality blended learning environment in general.

While previous surveys on students' perspective on BL have laid a basic picture on BL strengths and challenges, they are commonly conducted in a specific context of class within a broad division of face to face and online sessions. This present study attempts to look further into two types of online mode i.e. the synchronous and asynchronous modes thus provides a more detailed picture of students perspective within various the contexts of BL. In addition, this study also considers related factors i.e. class size in both the face to face and online sessions. In particular, it seeks to answer how the students perceive their BL experiences and identify the attributes that hinder and support their learning in a blended learning environment.

Defining Blended Learning

Blended learning has been widely defined as the combination of the conventional face to face model of teaching and the web-based online teaching; two kinds of instructions which previously were two separate models of teaching. (Bonk and Graham, 2006; Graham, Woodfield, Harrison, 2013). This definition, nevertheless, is overly simplified and fails to capture the element of pedagogical meaning or purpose of the combination. Yoon and Lee (2010, p. 180) scaled down the term, and refined the definition of blended learning as 'bringing together the positive attributes of online and offline education, including instructional modalities, delivery methods, learning tools, etc., in relation to language teaching and learning approaches and methods in order to reinforce

the learning process, to bring about the optimal learner achievement, and to enhance the quality of teaching and learning'. While this definition already highlights the importance of the pedagogical purpose, it still cannot answer the sharp criticism on the use of the term and definition which was forwarded by Oliver and Trigwell (2005). Addressing the philosophical, pragmatic, and focus of the term, Oliver and Trigwell (2005) addressed near rhetorical question whether it is teaching or it is learning that is being blended. More appropriate terms were then offered, i.e. blended pedagogies or learning with blended pedagogies. Benefits and Required Attributes of Blended Learning

Arguments for the benefits of blended learning are well-rehearsed and include increased critical thinking and knowledge transformation; accelerated learning; creation of effective learning environment; flexibility for teacher and students; personalization; enhanced student motivation; and the development of autonomy and self-directed learning. (Jou, Lin, Wu, 2013; Patchan et al., 2014; George-Walker and Keefe, 2010; Wang, Chen, Tai, 2019). The benefits, nevertheless, are not to be viewed as homogeneous and automated. Earlier studies revealed that there are also different, if not contrast, findings on BL. Mijatovic (2013), for example, found that students' active participation in class has a stronger positive effect on students' achievement than students' interactive usage of the learning management system. Also, some studies pointed out the double-sided benefits of BL.

Due to the increased flexibility and autonomy in BL program, self-regulation becomes a critical factor for success. (Van Laer and Elen, 2016; Boelens et al., 2017). Unfortunately, the self-regulation itself is an area that is less explored. Van Laer and Elen (2016) may have come up with the seven attributes of BL (authenticity, personalization, learner control, scaffolding, interaction, cues for reflection and cues for calibration) that support students' self-regulation but they admitted that the relationship between each attribute and the self-regulatory behavior remain unclear. Hubackova and Semradova (2016) also noted that the success of BL depends on several factors that cover: the quality of the program and the virtual environment, the readiness of the students to work in the virtual environment, and the responsible students' attitude toward the tasks, which chimes the students' self-regulation. Personalization is also a double-sided attribute of BL. While it can be viewed as a benefit, it also brings a sense of distance. Added

with the actual distance of communication in the BL environment, students may feel isolated. (Boelens et al., 2017).

Researched Areas of Blended Learning

The robust number of studies is a strong indicator that blended learning has become a new currency in education. Several meta-analyses have also been conducted to map the themes that have been addressed in the area. Two of the most current meta-studies conducted by Pima (2018) and Smith and Hill (2018) both used the categorization from Halverson et al. (2014) which covers 10 areas: Instructional design, Disposition, Exploration, Learner outcomes, Comparison, Technology, Interaction, Professional Development, Demographic, and Other. Pima et al. (2018) analyzed 210 studies conducted from 2000 to 2016 and Smith and Hill (2018) examined 97 BL articles which were published in 15 journals from 2012 to 2017. Based on the two meta-studies, publication on BL researches frequently highlight Learner's outcome and Instructional Design category. This agrees Zhang and Zhu's observation that 'blended learning is still undergoing the beginning period so that most articles aimed at identifying the effectiveness of blended learning and designing blended learning' (2017, p. 676).

Meanwhile, Pima et al. (2018) revealed that most research publications are on Instructional design in which significant attention is given on the models, best practices, and strategies but there is little work on institutional adoption and guiding framework i.e. underlying guide on which the implementation of BL is based. Similarly, Smith and Hill (2018) also found that BL researches tend to be practical, individually focused, and small-scale. Lack of framework leaves BL many questions to answer such as how to incorporate flexibility and personalization and how far they should be facilitated, how to maintain interactive-ness without making students feel isolated, how to create/ design BL instructional activities. (Boelens et al. 2017). Reflecting on the finding, a guiding framework has been suggested as an issue that should receive more attention in the future research on BL (Halverson et al. 2014, Boelens et al., 2017). It is argued that framework may reduce inconsistency in the implementation of blended learning thus partially provide an answer to BL-related questions such as what, when and how far is blending in BL. In building a framework, students-related aspects must be taken into consideration (Pima et al, 2018).

Students' perspective, particularly in the EFL context, has been the focus of

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several examination. Wright (2016) investigated the perspective of 112 Malaysian university students while AI Zumor et al. (2013) examine the perspective of 160 male university in Saudi Arabia. In Indonesia, Sari and Wahyudin (2018) took a narrower scope in examining the Indonesian university students' perspective by focusing on the use of Instagram. Although conducted in different setting these studies revealed relatively similar theme related to the students' preferences on the face-to-face and online mode of BL and the reasoning behind the options. To note, the findings are bound in the context of a broad dichotomy of online and face-to-face session of BL. Meanwhile, there are several possible situations of BL which differ in terms of its features. For example, belonging to the same type of online mode, the synchronous and asynchronous type have a relatively opposing characteristics. Thus, further examination which consider the uniqueness of each type is necessary to avoid overgeneralization of either findings or suggestions

RESEARCH METHODOLOGY

Design and Participants

This study took the design of a survey study. An open-ended questionnaire was distributed to 150 students from three higher education institutions in Indonesia i.e. a Polytechnic, a state University, a state Islamic University located in the province of Central Java, Jakarta, and Lampung. A pre-interview was conducted with the lecturers of the three institutions to ensure that all respondents had experienced blended learning which combines both face to face and online sessions, either the synchronous or asynchronous modes. In the process, only half or 75 respondents majoring three different fields (engineering, education, and religion) agreed to participate in the study. The respondents all took English compulsory classes and questionnaire was placed in the EFL class context.

The main instrument for this study was a questionnaire developed based on Perceptions of Learning Environments Questionnaire II (Devlin, 2002). To enhance the respondents' comprehension, the questionnaire is delivered in Bahasa Indonesia. The instrument is mainly divided into three sections. The first section of the questionnaire inquires the hindering factor and the second section aims at identifying the facilitating factor experienced by the respondents. The third section is aimed at wrapping up the students' perspective as well as eliciting students'

perspective on the factors that attribute to the success of learning.

In each section, five situations of blended learning were posed. The situations reflect the class size i.e. big class with more than 25 students and small class with less than 25 students. The situation also depicts the types of blended learning i.e. face to face mode, online synchronous and online asynchronous mode. The online synchronous mode is an online session in blended learning in which students and instructor interacts real time thorough the internet. It commonly takes form of video conferencing, real time chat and discussion forum. Meanwhile the online asynchronous mode commonly takes form of coursework delivered via web, email or message boards. In this mode, students are expected to adjust their learning to self-regulatory thus they learn at their own pace. In the questionnaire, the five situations to respond are (1) synchronous online learning with less than 25 students, (2) synchronous online learning with more than 25 students, (3) asynchronous online learning, (4) face to face learning with less than 25 students.

Data analysis

The analysis was carried out by adapting the stages suggested by Marshall and Rossman (2006, p. 156-157). The first stage is data organization and the second stage is data immersion. In the practice, these first and second stages are carried out by conducting layered tabulation and coding. In the first layer, all responses are tabulated. In the second layer, similar responses were coded into a category. In the third layer, the occurrence (or re-occurrence) was recorded/ rechecked. After the tabulation was completed, the codes were reviewed to see if a theme emerged. The occurrence of responses was also examined to get the ordered frequency. In the third stage, emerging themes are identified and categorized. After all categories or themes have been identified, the next stage is data interpretation and contestation to previous research report as well as existing theories.

Validity and reliability

At the core, validity and reliability mainly concern on objectivity. In quantitative study such as this survey, the objectivity lies in the instrument used to collect the data i.e. the questionnaire. But since the data collected are mostly nominal instead of numerical, the objectivity is centered at the interpreter. Nevertheless, the measure of instrument validity, whether it really measure what it

intends to measure, was carried out. The instrument had been tried out to a group of heterogeneous students who were not part of the study's respondents. The face validity indicated that the questionnaire was easy to follow and comprehensible. The use of *Bahasa Indonesia* was aimed at enhancing the face validity. A panel of researchers at the university research group were invited to check the content validity of the instrument and they concluded that the instrument can be utilized for this study. Regarding the reliability, all the measures of reliability of the questionnaire cannot be measured unless the scale of measurement based on numerical values.

DISCUSSION

Hindering and Facilitating Factors

This first part reports the hindering and facilitating factors in two modes of teaching/ learning i.e. face to face and online learning (both synchronous and asynchronous) and in five possible situations of the modes. To note, the students responded in accordance with each situation that applies to them. Consequently, the number of responses may differ in each context. (The (n) is stated below each table).

Face to face mode > 25 students		Face to face mode < 25 students		
Hindering factors	%	Hindering factors	%	
Noise	57	Anxiety	32	
Delivery	11	Delivery	16	
Anxiety	10	Physical attendance and schedule	15	
Non equal participation	10	Material	13	
Physical attendance/ schedule	6	Non equal participation	12	
Material	4	Interaction and perspectives	7	
Technical issues	2	Noise	4	
		Technical issues	1	
N=52		N=75		

Table 1. Hindering factors in face to face mode

As predicted, the students' responses to the open-ended questionnaire on the hindering factors reflect the classic issue of big and small class size. The students found that noise was the main problem in the big class, while in the small class, the major issue was high anxiety. In either class size, shared problems included delivery, material, physical attendance and non-equal participation. Delivery problems covered issues such as instructor's speed, and clarity in delivering the lesson and language-related problem. Materials problem covered the number of materials that are too little or too many, low readability of the materials, and boring materials.

Table 2. Facilitating factors in face to face mode.

Face to face mode > 25 students		Face to face mode < 25 students		
Facilitating factors	%	Facilitating factors	%	
Perspective	55	Focus	53	
Direct communication	44	Direct communication	25	
		Perspective	15	
		Delivery	7	
N=33		N=75		

Predictable reverse findings are also observable in the students' response on the facilitating factors in face to face mode. As the noise issue was resolved in the small class, the students noted the increased focus on the lesson. In the face to face mode, the students admitted the high degree of anxiety, particularly when being asked to answer or respond to a questions but at the same time, they found direct communication which allowed instructors' immediate response and clarification as facilitating. In bigger class size, the number of students was viewed as a resource for gaining multiple perspectives.

Asynchronous mode		Online synchronous >	25	Online synchronous ·	< 25
		students	students		
Hindering factor	%	Hindering factor		Hindering factor	%
Delayed response	53	Technical		Technical	63
Motivation/ self-		Material		Delivery	15
regulatory behavior	18				
Interaction	15	Delivery	12	Material	12
Material		Non equal participation		Affective and social	7
	14		8	factors	
		Affective and social issue	7	Self regulatory behavior	3
N=51		N=75		N=59	

Table 3. Hindering factors in online mode

In both synchronous online situations, the major hindering factor accounted by the students was technical issue. This technical issue related to internet connection and its speed is one theme that commonly reported as hindering factor in other studies on online learning mode (Al-Zumor et al., 2013; Wright, 2017; Sari and Wahyudin, 2019). A closer look at one type of online learning, however, revealed that technical issue which the students complain about is not limited to internet connection. The respondents mentioned that it was technically difficult when some students responded or asked questions at the same time in synchronous mode. Some questions and response were left unattended. It partly explained the non-equal participation issue in the big class of synchronous online mode.

As observed in table 3, in the online mode, the issue with anxiety is

diminishing and presumably enhancing the students' participation. Interestingly, some students reported the feeling of being 'alone' during the online session. A similar observation is reported by Boelens et al. (2017). Table 3 also reveals that the students were aware of the demand of the self-regulatory behavior but they found it as hindering.

In the synchronous mode, delivery and material problems as found in the face to face mode remained. This finding does not only confirm the central role of the teacher (Hubackova and Semradova, 2016) but it also suggests that the change of teaching mode does not improve the teaching/learning. It can also be read that nothing changes in the way the teacher teaches regardless of the use of technology (Henessy, 2005).

Meanwhile, the biggest complaint about the asynchronous mode is the delayed response. Compared to the previous result, this finding means that the students find direct communication with the instructor i.e. when answering a question is less favored but they expected a direct response or clarification from the instructors on their questions.

Asynchronous mode Online synchronous > students		25	Online synchronous < students	25	
Facilitating factors	%	Facilitating factors	%	Facilitating factors	%
Ease in organizing		Flexible		Flexible/ ease of access	
assignment	25		36		40
Flexible	19	Less anxiety	36	Less anxiety	36
Ease of Access	16	Efficient	12	Quick response	13
Less anxiety		Ease in organizing		Cost/ time efficient	
	16	assignment	16		4
Perspectives	15			Allow revisit response	3
Efficient	9			Focus	2
				Allow internet research	2
N=75		N=25		N=53	

Table 4. Facilitating Factors in Online Mode

In the online mode, the recurring facilitating keyword mentioned by the respondents is the ease or flexibility of access, reduced anxiety and efficiency in terms of cost and time. Less anxiety is likely to increase students' participation in the class. As a result, students find the online mode offers more perspectives. The respondents also find the online mode is more time and cost effective particularly in terms of assignment/ task submission.

Students' Preference and Attribute Evaluation

The students' reflection on their blended learning experience revealed their

swinging preferences. Generally, most students preferred the face to face mode, mainly in the small class, to the online mode. Two most frequently mentioned reasons for this option were familiarity and direct clarification in the face to face mode. While the lecturer's delivery and material were considered as two hindering factors, the issues could be addressed directly in the face to face mode by asking clarification, thus, making the students feel that they learn better in this type of instruction. This is more or less resound the findings of previous studies by Wright (2018) who found that the students also preferred the face-to-face mode because they feel that the mode allows better comprehension to the lesson and more interaction with the lecturer.



Chart 1. Students' preferences, participation and comfort

Regardless of their option for face to face mode, the students mention that they participate better in synchronous online sessions. The resounding reason is reduced anxiety. The students feel more secured and have more time and access to the internet when preparing and providing their response to the lesson. As Sullivan and Pratt (1996) noted, networked classroom provided the less proficient speaker more time to think about what to "say", thus reducing anxiety. In most online synchronous mode, the students' responses are commonly delivered through live chat and video conferencing. Although the communication was real time, the students reported that they could check and did quick internet research before providing response more securely. In their response the students noted some reasons for this secured feeling that mainly centered at the absence of teachers' monitoring on what they did in preparing the response. Even when they had the camera on and the teacher could see them through the net, teacher had no access on other online activities that the students did.

Kern (1995) also suggested the use of computer mediated communication

equalizes students' participation because it could accommodate introvert learners to feel more comfortable to contribute to the class. To this extent, however, it is important to note that thorough examination and measurement on anxiety per se and empirical evidence on whether the mediated communication moderated anxiety are beyond the scope of this study. This study, instead, recorded early indices of students' anxiety as reflected in their responses.

Meanwhile, the degree of comfort varied depending on the students' familiarity with the mode of instructions. The students who preferred and participated better in the online mode tended to find online session more comfortable. While those who opted for face to face mode whether or not they participated better in that mode, tended to feel more comfortable in the face to face session. An earlier study on the implementation of blended learning by Hubackova and Semradova (2016) accounted that the success of blended learning partly required students' readiness to the program i.e. virtual environment.

The study also revealed that the students acknowledged that the success of their learning success in a blended learning environment was largely contributed by themselves. Most students thought that they were highly, even totally, responsible for their success. Some students, however, found that, at varying degree, the teachers, parents, and friends were partly responsible for the learning success.





The self-regulatory factor is often mentioned as one of the important benefits (Wang, Chen, Tai, 2019) as well as requirements (Van Laer and Elen, 2016; Hubackova and Semradova, 2016) and consequences (Van Laer and Elen, 2016)

in blended learning. Interestingly, while the respondents in this study agree that self-regulatory is one key in the blended learning program, they also find this attribute as hindering. This can be interpreted that the students *know* what 'should be' but *do not do* as it should be. This also implies that in the online mode, a framework for cultivating the self-regulatory behavior must be well-incorporated. Further exploration of the self-regulatory attribute, however, is beyond the scope of this study

CONCLUSION AND SUGGESTION

This study revealed the hindering and facilitating factors of BL which was contextualized in five possible situations. The hindering and facilitating factors in face to face and online mode are generally predictable. The students, in general, prefer the face to face mode because the mode is more familiar to them. In this case while novelty learning mode could be a motivating factor (Wright, 2018) it seems that the degree of readiness to get involved in online mode plays greater role. The students find the classic mode of direct class interaction with peers and teachers facilitate their learning and in contrast find the self-regulatory attribute which is required in online learning as a challenge. Nonetheless, they feel more relaxed in participating in the computer mediated class. To note; however, the students expect direct response from the teacher/ instructor which is not available in asynchronous mode.

Two main concerns are observed in the study. First, there is shared hindering factors in both online and face-to-face mode i.e. delivery and material. This means that regardless the mode, teachers' capacity in helping students learn needs to be enhanced. This also means that the change and blend of teaching, from face-to-face to online mode, has not been able to bring transformative teaching/learning. In other words, practices remained unchanged although the mode is changed. Second, the acknowledgment of self-regulatory behavior as a key element in blended learning is a contrast to the view of it as a hindering factor. The findings imply and confirm the urge for building a framework for setting up a blended learning program which incorporates self-regulatory behavior cultivation and generates teaching and learning transformation.

REFERENCES

- Al Zumor, A.W.Q., Al Refaai, I.K., Eddin, E.A.B., and Al-Rahman, F. H. A. (2013) "EFL students' perceptions of a blended learning environment: Advantages, limitations and suggestions for improvement." English Language Teaching 6, no. 10 (September 3, 2013). <u>https://doi.org/10.5539/elt.v6n10p95</u>.
- Blieck, Y., Ooghe, I., Zhu, C., Depryck, K., Struyven, K., Pynoo, B., and Van Laer, H. (2019) "Consensus among stakeholders about success factors and indicators for quality of online and blended learning in adult education: A Delphi Study." *Studies in Continuing Education* 41, no. 1: 36–60. https://doi.org/10.1080/0158037X.2018.1457023.
- Boelens, R., De Wever, B., and Voet, M. (2017). "Four key challenges to the design of blended learning: A systematic literature review." *Educational Research Review* 22: 1–18. https://doi.org/10.1016/j.edurev.2017.06.001.
- Bonk, C. J., and Graham, C.R. The handbook of blended learning: Global perspectives, local designs. John Wiley & Sons, 2006.
- Devlin, M. (2002). "An improved questionnaire for gathering students' perception of teaching and learning." *Higher Education Research and Development* 21 3, 289-304.
- Halverson, L.R., Graham, C.R., Spring, K.J., Drysdale, J.S and Henrie, C.R.. (2014). "A thematic analysis of the most highly cited scholarship in the first decade of blended learning research." *The Internet and Higher Education* 20: 20–34. https://doi.org/10.1016/j.iheduc.2013.09.004.
- Hennessy, S., Ruthven, K. and Brindley, S. (2005) "Teacher Perspectives on Integrating ICT into Subject Teaching: Commitment, Constraints, Caution, and Change." Journal of Curriculum Studies 37, no. 2: 155–92. https://doi.org/10.1080/0022027032000276961.
- Hubackova, S., and Semradova, I. (2016) "Evaluation of blended learning." *Procedia* - Social and Behavioral Sciences 217: 551–57. https://doi.org/10.1016/j.sbspro.2016.02.044.
- Jou, M., Lin, Y.T., and Wu, D.W. (2016) "Effect of a blended learning environment on student critical thinking and knowledge transformation." Interactive Learning Environments 24, no. 6: 1131–47. https://doi.org/10.1080/10494820.2014.961485.
- Kern, R. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *The* Modern Language Journal *79*, 457–76
- Mijatovic, I., Cudanov, M., Jednak, S., and Kadijevich, J.M. (2013) "How the usage of learning management systems influences student achievement." *Teaching in Higher Education* 18, no. 5: 506–17. https://doi.org/10.1080/13562517.2012.753049.

- Norberg, A., Dziuban, C. D., & Moskal, P. D. (2011). A time-based blended learning model. On the Horizon, 19(3), 207–216. doi:10.1108/10748121111163913
- Marshall, C and Rossman, G.B. (2006). Designing Qualitative Research. Thousands Oaks, Calif: Sage Publication
- Oliver, M, and Trigwell, K. (2005) "Can 'blended learning' be redeemed?" *E-*Learning and Digital Media 2, no. 1: 17–26.
- Patchan, M.M., Schunn, C.D., Sieg, W., and McLaughlin, D. (2016). "The effect of blended instruction on accelerated learning." *Technology, Pedagogy and Education* 25, no. 3: 269–86. https://doi.org/10.1080/1475939X.2015.1013977.
- Pima, J.M., Odetayo, M., Iqbal, R., and Sedoyeka, E. (2018). "A thematic review of blended learning in higher education:" International Journal of Mobile and Blended Learning 10, no. 1: 1–11. <u>https://doi.org/10.4018/IJMBL.2018010101</u>.
- Sari, F. M. and Wahyudin, A.Y. (2019). "Undergraduate students' perceptions toward blended learning through instagram in English for business class." International Journal of Language Education 1, no. 1 (2019): 64–73.
- Smith, K., and Hill, J. (2019). "Defining the nature of blended learning through its depiction in current research." *Higher Education Research & Development* 38, no. 2: 383–97. https://doi.org/10.1080/07294360.2018.1517732.
- Sullivan, N. & Pratt, E. (1996). A comparative study of two ESL writing environments: A computer-assisted classroom and a traditional oral classroom.
- Van Laer, S., and Elen, J. (2017). "In search of attributes that support self-regulation in blended learning environments." *Education and Information Technologies* 22, no. 4: 1395–1454. https://doi.org/10.1007/s10639-016-9505-x.
- Waha, B. and Davis, K. (2014). "University students' perspective on blended learning." Journal of Higher Education Policy and Management 36, no. 2: 172–82. https://doi.org/10.1080/1360080X.2014.884677.
- Wang, N., Chen, J., Tai, M., and Zhang, J. (2019). "Blended learning for Chinese university EFL Learners: Learning environment and learner perceptions." *Computer Assisted Language Learning:* 1–27. https://doi.org/10.1080/09588221.2019.1607881.
- Wright, B. M. (2017). "Blended learning: student perception of face-to-face and online EFL lessons." Indonesian Journal of Applied Linguistics 7, no. 1 (May 31, 2017): 64. https://doi.org/10.17509/ijal.v7i1.6859
- Zhang, W., and Zhu, C. (2017). "Review on blended learning: Identifying the key themes and categories". International Journal of Information and Education Technology, 7(9), 673–678. doi:10. 18178/ijiet.2017.7.9.952