



Investigating the Effectiveness of Edmodo on EFL Learners' Motivation in Writing Class

Bayu Andika Prasatyo

bayu@stbatechnocrat.ac.id

STBA Technocrat, Cikupa, Indonesia

Orcid Id/URL: <https://orcid.org/0000-0003-0331-0584>

Devian Try Gustary

devi@stbatechnocrat.ac.id

STBA Technocrat, Cikupa, Indonesia

Received: 25 January 2023

Accepted: 20 February 2023

Published: 22 February 2023

DOI: <https://doi.org/10.33541/jet.v9i1.4604>

Abstract

This study aims at scrutinizing the effectiveness of the utilization web-based learning platform, *Edmodo* in teaching academic writing to EFL learners. This study employed a mixed method approach on the fifth-semester students and confirmed that 10 students take part in this study. A mixed method approach was utilized in this study which applied questionnaires to gain quantitative data. Meanwhile, the qualitative data were attained through semi-structured interviews to measure the effectiveness of the Edmodo application in writing class. The findings revealed that 88% of students prefer to learn writing skills using the Edmodo learning platform through collaborative tasks. The research findings illustrated that there was an improvement and students' interest in writing by applying the Edmodo learning platform. Besides, students find Edmodo as a user-friendly media, and easy to use. Edmodo has helped and developed their writing creativity and their cognitive skills and social interaction with peers are also positively developed. This confirmed that there were enough shreds of evidence of how Edmodo was said to be effective in fostering EFL learners' motivation in writing.

Keywords:

Edmodo, EFL Learners' motivation, writing skill, collaborative writing

INTRODUCTION

The need for digital-based learning activities in second language learning has recently spread and fulfilled the student's characteristics as digital natives that actively apply information and communication technology. Over decades the traditional teaching-based, classroom orientation, as well as teacher-centered lessons, have been left behind and they presumably do not meet the present generation of students' needs. Educators have utilized several digital platforms to accommodate and accelerate their teaching style. In respect of extending the practices of digital literacy and taking into consideration that motivation plays a significant role in second language learning. The spread of new media, as well as the Covid-19 outbreak, have resulted in a debatable issue concerning the effectiveness of digital platforms in evolving students' foreign language proficiency, particularly in the writing facet. Educators have sought a way to harness digital platform that is easily accessible to students.

Writing is one of the most challenging areas for EFL students to grasp. According to Bell and Burnaby (as stated in Nunan, 1989), writing is a highly complicated cognitive activity in which the writer must display control of several factors at the same time. This situation forces the second language learners to carefully pay attention and create higher-level abilities such as planning and organizing as well as lower-level skills which include content, mechanics, word choice, and punctuation. The statement aforementioned is in line with what Murcia, (2000) expressed that at the sentence level, writing skills include control of content, format, sentence structure, vocabulary, punctuation, and spelling.

So far, the function of interest in writing has been investigated and regarded as the prime determinant for writing. According to Boscolo et al. (2007), interest has been seen as somewhat static since learners are trained to be interested or indifferent to a certain issue. He stated that interest in writing indicates "a student's approach to writing," and students are encouraged to find writing fascinating provided the training and classroom activities enable them to discover the attractive and difficult parts of the activity. As a result, Hidi and Boscolo (2006), defined interest as a psychological state that happens during interactions between individuals and their surroundings and is characterized by increased attention, focus, and affect. Briefly stated, situational interest is a potentially long-lasting emotional response that is often abruptly elicited by particular environmental stimuli. (Lipstein & Reningger, 2007). Individual interest, on the other hand, refers to a psychological state as well as a long-lasting tendency to pay attention to things and events and repeatedly engage with certain content through time (Krapp, 2000).

The socio-constructivist approach to literacy instruction views writing as a means of conveying ideas that allow for reflection, comparison, and reasoning, as well as inspiring action. Hidi and Boscolo (2006). As a result, when writing is viewed as a social activity and students collaborate in pairs to compose a text, motivation is stimulated because this has been shown to have both emotional and cognitive advantages (Nolen, 2007).

Although the study concerned with the use of Edmodo is relatively new, recently, Researchers have shown a growing interest in studying its effects on EFL learners, with the majority highlighting its favorable effect on motivation and writing performance

(Duran, 2013; Purnawarman et al., 2016; Shams-Abadi et al., 2015). However, far too little attention has been paid to its effects on EFL learners' writing skills in recount text (Fauzi, A, 2015).

Recent research conducted by Gustary, Prasaty, & Sari. (2022) provide an intriguing new perspective on the issue of peer feedback in a blended learning context that enables learners to improve their writing skills and how they interpret online peer feedback on writing in a blended learning situation. The results show that students' perceptions of online peer feedback via Edmodo were likewise favorable in terms of utility, ease of use, and curiosity. The finding also discovered that the exercises in Edmodo saved them a lot of time since the blended learning model allows students to optimize the amount of time they have to write. Therefore, with a different viewpoint, this study examines, whether, in the best of circumstances, writing class-based- Edmodo can be effective in motivating students to build their writing abilities. Thus, this current study aims to explore and synthesize the effectiveness of Edmodo on students' engagement in writing classes. After elaborating on the utilization of Edmodo, as a medium in writing activity, the study focuses on the investigation of the effectiveness of Edmodo on EFL learners' motivation in writing class. This present study will ideally educate EFL instructors on the efficacy of employing Edmodo in writing classes.

Digital Tools in Language Learning

Nowadays, there are several methods to use technology as a medium for language teaching and learning. According to Topping, et al, (2022), computer-supported collaborative learning or widely known as *CSCCL* focuses on how the digital platform supports collaborative learning. In the long run, this can improve peer interaction and group work, as well as facilitate the sharing of information and skills among community members (Lipponen, 2002). The participants are semester 5 students at the university level. These 10 students in writing class utilize an Internet-enabled application called Edmodo to encourage both social and collaborative learning at a distance from one another and from their lecturer. In respect of writing skills in the digital era, many educators apply social platforms to improve their teaching quality. In this way, at the same time, students also attain benefits from learning through the advanced tool. This will not only sharpen their writing skill but also facilitates students' personal experience and creativity. Purcell et al. (2013) found that digital technologies shape students' writing in a variety of ways and have also become useful instruments for teaching writing to both intermediate and upper-intermediate-level high school students.

Edmodo

Edmodo becomes one of the most recent technologies and new educational social networks which attracts the researchers' attention and is adopted and utilized among them around the globe, especially in language classroom based. This web-based application is a safe social platform that was specifically created for educational purposes. Nowadays, there has an increasing amount of literature on harnessing Edmodo as a learning management system. According to Witherspoon (2011), Edmodo might be viewed as a Learning Management System (LMS) that enables teachers to properly set up and

administer their online classes. Mills & Chandra, (2011) proposed that incorporating Web 2.0 technology into education improves student motivation and social networking and allows for a more driven and learner-centered language classroom. It means that Edmodo as a social network and digital platform for learning promotes a positive classroom culture by allowing students to interact closely with one another. (Mills & Chandra, 2011). Therefore, students' connections on Edmodo can be regarded as the implementation of the notion of a Community of Practices known by CP. In addition, Wenger (2015), proposed CPs as "groups of people who share a concern or a love for something they enjoy doing and learn how to do it better as they engage regularly," Edmodo becomes one of the top social learning networks dedicated to "connecting learners with the people and resources they need to attain their best potential" (ibid, n.p.).

In a foreign language classroom context, the study on Edmodo integration has widely been concerned with the investigation of the learner's belief and perspective towards this learning experience. The study of the implication of Edmodo was carried out by Al-Kathiri (2015). He found that secondary school students who participated in daily interactions on Edmodo for six weeks had a considerably positive opinion of studying English as a foreign language. The study conducted by Agustiani, Ningsih & Muris (2021) also described that the students found Edmodo as a good and interesting medium that can increase their motivation to learn. This finding can be seen through the greater student participation and motivation that generate higher learning outcomes. The students admitted that Edmodo as a learning platform is user-friendly, realistic, time-saving, enjoyable, and inspiring.

While Alshawi and Alhomoud (2016) differently investigated how Edmodo use in EFL learning could considerably influence students' involvement in learning, motivation to learn English, and communication between teachers and students. 255 university students took part in their research. A questionnaire was employed to collect data. The results showed that utilizing Edmodo considerably enhanced participants' enthusiasm to learn a language and significantly increased teacher-student contact. Furthermore, it is found that students are fond of Edmodo quizzes and assignments.

A recent study of the use of Edmodo has also been conducted by Nami (2022). Her study utilized a quasi-experimental between-subjects (control versus experimental group) design for additional language practice in a semi-technical English course in an EFL context. The result of her research showed that Edmodo is a "suitable space for supplementing classroom instruction and practice as well as providing opportunities for collaborative, peer-to-peer problem-oriented learning through the creation of a supportive authentic learning environment beyond the temporal limitations of physical classrooms".

METHOD

Considering the positive results of previous research that is to what extent EFL learners perceive online peer feedback on writing in the blended learning context. This study employed a mixed method approach to provide a more comprehensive understanding of research problems (Fraenkel, Wallen & Hyun, 2011) namely to determine the extent to which the effectiveness of Edmodo can increase students' engagement in writing through a collaborative writing task. This study is also classified as a case study since it was

performed to investigate a specific educational phenomenon (Fraenkel et al., 2011; Nunan, 1992).

Participant

The subjects of this study were ten English Literature Department students who are enrolled in the 'Composition II' course. They are separated into three groups, and one of them is chosen randomly that represents proficiency levels of low, intermediate, and advanced.

Instrument

This source's primary tools will be observation and interviews. It allows the researchers to acquire a deeper insight and more information on the usage of Edmodo in the online classroom. Specifically, both quantitative and qualitative data were collected sequentially. This led to the selection of a sequential explanatory design, in which the gathering and analysis of quantitative data were conducted and followed by the collection and analysis of qualitative data. (Creswell, 2009). The instruments used were document analysis, semi-structured interviews, and questionnaires.

In a sequential explanatory design, the researchers first conduct a quantitative study using surveys to determine the efficiency of Edmodo. The quantitative findings were then followed up and modified using a qualitative technique (Fraenkel, Wallen & Hyun, 2011; Creswell, 2003). The qualitative data were acquired through interviews to supplement the quantitative data on student participation in Edmodo.

Data Analysis Technique

The data are gathered via a questionnaire and an interview which included statements and questions designed to elicit the effectiveness of Edmodo Use in writing learning. Meanwhile, interviewing students will also support the questionnaire. Purposive sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources. (Paton, 2002). In this way, the researcher will easily in implementing an interview session with students since the respondents have been identified and selected based on the criteria of the respondent.

FINDINGS AND DISCUSSION

To determine the extent to which the effectiveness of Edmodo can increase students' interest in writing through collaborative writing tasks, a semi-structured interview and a questionnaire with a 5-point Likert scale asking the effectiveness of Edmodo were distributed to the students at the end of the sessions.

Based on the questionnaire, all of the students are a novice in using Edmodo (100%). They were used to write paragraphs or essays traditionally- they use handwriting to do assignments in writing class. Therefore, before the students start to use Edmodo, it is important to make them familiar with Edmodo and its features in this application. Moreover, they rarely do collaborative writing or peer feedback activity to assess their writing. Thus, they are interested in using Edmodo in writing class (50% strongly agree;

30% agree; 20% somewhat agree). This finding was further supported by the answers elicited from interview questions where all of the students claimed that the use of Edmodo is effective in writing class. The same result has been claimed by Purnawarman (2016); Pardede (2015); Miftah (2018); Gustary, Prasatyo & Sari (2022). Moreover, the students said that Edmodo is relatively easy to use. It is a friendly platform for them to conduct writing assignments (40% strongly agree). It is in line with research conducted by Pardede (2017) who stated that Edmodo makes it the students easy to submit their digital content assignments.

Table 1. *The Effectiveness of Edmodo*

No	Statement	Percentage				
		SA	A	N	D	SD
1.	Using Edmodo is my new experience in writing class.	100%				
2.	I am interested to use Edmodo in the writing class	50%	30%	20%		
3.	I find it difficult to use Edmodo in writing class.	10%	10%	20%	30%	30%
4.	Edmodo makes me easy to do the assignments	40%	30%	20%	10%	
5.	Edmodo encourages collaborative learning	40%	40%	20%		
6.	Edmodo encourages me to learn independently	50%	30%	20%		
7.	In writing class, I feel more enjoy to contribute in learning activities by using Edmodo.	60%	30%	10%		
8.	Edmodo motivates me to develop my writing	40%	40%	20%		

Students are also motivated to write by the use of Edmodo. The result of the questionnaires showed that 80% of the students are motivated to write. This result builds on what has been discovered by Al-Ruheili & Al-Said (2015) related to the advantages of using Edmodo. It was found that most of the students felt that Edmodo can motivate them to learn. Moreover, it was affirmed from the interview that Edmodo can motivate them to develop their writing as shown in the following excerpts.

I think writing through Edmodo is better than using handwriting to write on paper (S2)

Yes, I am motivated because students can be more creative in writing (S3)

Off course, I feel motivated because there is a scoring system to increase my motivation to learn writing (S4)

I am motivated to develop the idea for writing essays (S7)

They said that they are more creative in writing; they are motivated to develop the content; the scoring system in Edmodo motivates them to keep writing. This finding supports the previous study conducted by Gustary, Prasatyo & Sari (2022) who state that the use of Edmodo as a learning tool for blended learning showed high satisfaction (60% very satisfied, 40% and somewhat satisfied). The students claimed that the use of Edmodo motivates them to develop their writing.

Based on the questionnaires, students felt that the use of Edmodo help them to develop collaborative learning (40% strongly agree; 40% agree; 20% somewhat agree). Nami (2022) claimed that the use of Edmodo may offer numerous chances to conduct virtual learning and collaboration for students and teachers. This collaboration also happened in this study since peer feedback is involved in collaborative learning activities in this study. This finding also justified Siahaan (2020) found that Edmodo can help students to increase their vocabulary and it helps the students to interact and communicate with peers. Edmodo offers the feature of collaborative activity through the use of a small group. This small group can facilitate the students to be more engaged and motivated to conduct peer feedback. It is in line with Nolen (2007) who states that when writing activity is regarded as a social activity and students work in pairs to write a text, the motivation is then triggered since this has been demonstrated to have both emotional and cognitive benefits.

Students' interest in writing implies "a student's orientation to writing," and students are expected to find writing interesting if the instruction and classroom activities allow them to explore the appealing and challenging aspects of the activity (Boscolo, et al, 2007). This theory affirmed the finding of this study that the students found the process of writing becomes interesting due to the use of Edmodo. Based on the questionnaires, 60 % of students strongly agree and 30% agree that they enjoyed the process of writing through Edmodo. This fact is also supported by the result of the interview that the process of writing become easier since the assignments posted in Edmodo through collaborative task makes them enjoy assessing peer writing. These findings have also been claimed by Gustary, Prasatyo & Sari (2022) that in terms of easiness, Edmodo is user-friendly to be used by L2 students in writing classes.

Besides those findings, some benefits that support the effectiveness of Edmodo were found (Siahaan, 2020; Martha, 2018; and Purnawarman, 2016). Based on the interview, students argue the benefits of using Edmodo such as, first, Edmodo is effective to develop students' writing. Edmodo motivates them to develop their writing (40% strongly agree, 40% agree). In the interview, they admitted that they can compose, edit or generate ideas easily. This finding affirmed what has been conducted by Fauzi (2017) that Edmodo offers numerous ways to generate ideas, compose, revise, and edit, from a single word to a lengthy essay.

Second, they can know their weaknesses in writing. One of the interviewees (S7) admitted “ *Edmodo helps me to see the errors in my writing and revise it soon.*” This support the finding of Nami (2022) who explained, “Students were notified not only when a new exercise set was uploaded but also whenever an individual posted a comment,

question, feedback, or answer on the shared exercises. As a result, students might have frequently returned to read and reflect on the explanations shared or respond to instructor or peer's comments".

Third, Edmodo is efficient, effective, and easy to use for a writing class. Moreover, Edmodo makes it easier to collect and post assignments (Purnawarman, 2016; Siahaan, 2020; Nami, 2022). Most of the students (40% strongly agree, 30% agree) that Edmodo offers easiness for students to do the assignment. It is also supported by the interview as follows.

Yes, I feel enjoyed because writing becomes simple and easier (S1)

Edmodo is very effective because Edmodo has a lot of advantages, for example in submitting the assignment (S7)

It is an effective tool and efficient to write (S4)

Edmodo is very helpful in uploading assignments (S6)

The other benefit of using Edmodo is that students' writing skill is developed; Based on the interview, they said that Edmodo makes them more diligent and more creative to write.

...I am motivated to write because by using Edmodo, I become more creative in writing (S3)

I am more diligent to write and to check the revision from my friends (S5)

In this study, the students work in small groups. Edmodo has a feature to make the small group so it enables the students to focus on their quality of work (Purnawarman, 2016). Moreover, Reading (2008) as cited by Purnawarman (2016) explained that cognitive engagement can be seen also when they are excited to revise when their peers or teacher give feedback on their work through Edmodo.

Despite the benefits, students also found some challenges in using Edmodo in writing class. The data from questionnaires showed that some students (10% strongly agree, 10% agree) find difficulties to use Edmodo in writing class. This finding is also admitted by the students in the interview sessions, as shown by the following excerpts.

Sometimes, I have to send my assignment. But it didn't save my work. So, I can't send it (S2)

At the first time, I was still confused about how to submit my assignment or give comments for my peer task (S9)

Sometimes, it's hard to send the file through the application (S3)

It is sometimes hard to be accessed (S5)

The features in mobile phones and computers are different (S4)

According to the excerpts, those limitations have been identified by Purnawarman et al. (2016) that bandwidth, confusion in using Edmodo, and incompatibility of smartphone applications are the main problems coming up during the study conducted. The finding was also affirmed by Pardede (2015) who revealed that poor internet connection may be one of the disadvantages of using Edmodo. Even, in research conducted by Al-Ruheili & Al-Said (2015), the low-speed internet and connection problems are claimed as one of the major challenges of using Edmodo among students at CAS-Sohar.

ACKNOWLEDGEMENTS

We gratefully acknowledge the funding from the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia through the program Junior Lecturer Research Grant. Thus, this study is not only expected to be a reading that can add knowledge, enrich methods, find problems and solutions, and develop into practical research involving digital platforms.

REFERENCES

- Agustiani, M., Ningsih, S., & Muris, A. A. (2021). Students' Learning Motivation Through Edmodo: Blended Learning In Esp Classroom. *Research and Development Journal of Education*, 7 (1), 39-49. DOI: <http://dx.doi.org/10.30998/rdje.v7i1.7670>
- Al-Kathiri, F. (2015). Beyond the classroom walls: Edmodo in Saudi secondary school EFL instruction, attitudes and challenges. *English Language Teaching*, 8(1), 189–204. doi:[10.5539/elt.v8n1p189](https://doi.org/10.5539/elt.v8n1p189).
- Al-Ruheili, H.S. & Al-Saidi, A.A. (2015). Students' Perceptions of the Effectiveness of Using Edmodo in EFL Classes. In *2015 GAI Istanbul International Academic Conference Proceeding*
- Alshawi, S.T. & Alhomoud, F.A. (2016). The Impact of Using Edmodo on Saudi University EFL Students' Motivation and Teacher-Student Communication. *International Journal of Education*, 8(4), 105-121
- Bell, J., & Burnaby, B. (1984). *A handbook for ESL literacy*. Toronto: OISE Press.
- Boscolo, P., Favero, L. & Borghetto, M. (2007). 'Writing on an interesting topic: Does writing foster interest?' In G. Rijlaarsdam (Series Ed.) and S. Hidi & P. Boscolo (Volume Eds.), *Studies in writing*, Vol. 19, Writing and motivation. Oxford: Elsevier, 73-91.
- Boscolo, P. & Hidi, S. (2007). 'The multiple meanings of motivation to write'. In G. Rijlaarsdam (Series Ed) and S. Hidi & P. Boscolo (Volume Eds), *Studies in writing*, Vol. 19, Writing and motivation. Oxford: Elsevier, 1-14.
- Duran Lara, V. (2013). 'The improvement of writing based on a genre approach
- Prasaty & Gustary:** *Investigating the Effectiveness of Edmodo on EFL Learners' Motivation in Writing Class*

through the use of an e-learning platform'. Unpublished thesis. University of Veracruz, Veracruz, at http://cdigital.uv.mx/bitstream/123456789/35143/1/duranlara_vanesa.pdf, accessed 22 September 2022.

Fauzi, A. (2015). The effectiveness of Edmodo in increasing students' writing skills in recount text (An experimental study towards the first graders of Man Rejotangan in academic 2014/2015). [Unpublished M.Ed. dissertation]. State Islamic Institute of Tulungagung.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2011). How to design and evaluate research in education: New York, NY: McGraw-Hill.

Gustary, D. T., Prasaty, B. A., & Sari, S. W. (2022). Peer Feedback of L2 Writing Class in Blended Learning Context. *Ethical Lingua: Journal of Language Teaching and Literature*, 9(2), 440-448. <https://doi.org/10.30605/25409190.447>

Hidi, S. & Boscolo, P. (2006). 'Motivation and writing'. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research*. Place of publication: Guilford Press, 144 - 157.

Lipponen, L. (2002). Exploring foundations for computer-supported collaborative learning. Computer Support for Collaborative Learning. *Proceedings of CSCL 2002*, Colorado, 72-81. <http://www.helsinki.fi/science/networkedlearning/texts/lipponen2002.pdf>

Lipstein, R. L. & Renninger, K. A. (2007). 'Interest for writing: How teachers can make a difference'. *English Journal*, 96/4: 79-85.

Miftah, M.Z. (2018). Utilization of Edmodo as an online tool in EFL writing class to increase students' writing ability. *Register Journal*, 11 (1), pp.37-58. doi: <http://dx.doi.org/10.18326/rgt.v11i1.37-58>.

Mills, K. A. & Chandra, V. (2011). Microblogging as a literacy practice for educational communities. *Journal of Adolescent & Adult Literacy*, 55(1), 35-45.

Murcia, C., Marianne. & Olshtein E. (2000). Discourse and context in language teaching. Cambridge: Cambridge University Press

Nami, F. (2022). Edmodo in semi-technical English courses: towards a more practical strategy for language learning/practice, *Computer Assisted Language Learning*, 35:7, 1533-1556, doi: 10.1080/09588221.2020.1819340

Nolen, S.B. (2003). 'The development of interest and motivation to read and write'. *Paper presented at the 10th bi-annual of the European Association for Research on Learning and Instruction*, Padova, Italy.

Nunan, D. (1989). Designing Task for the Communicative Classroom. Cambridge: Cambridge University Press.

Nunan, D. (1992). Research methods in language learning. Cambridge, England: Cambridge University Press.

Pardede, P. (2015). Pre-Service EFL Teachers' Perception of Edmodo Use as a Complementary Learning Tool. Paper presented at UKI English Education Department Collegiate Forum held on Friday, June 12, 2015

Pardede, P. (2017). Current Studies on the Use of Edmodo in EFL Learning: A Review. *Journal of English Teaching*, 3(3). DOI: <https://doi.org/10.33541/jet.v3i3.1332>

- Patton MQ. (2022). *Qualitative research and evaluation methods*. 3rd Sage Publications; Thousand Oaks, CA.
- Purcell, K., Buchanan, J., Friedrich, L. (2013). The Impact of Digital Tools on Student Writing and How Writing is Taught in Schools. <http://www.pewinternet.org/>
- Purnawarman, P., Susilawati & Sundayana, W. (2016). The use of Edmodo in teaching writing in a blended learning setting. *Indonesian Journal of Applied Linguistics*, 5(2), 242-252. doi: [dx.doi.org/10.17509/ijal.v5i2.1348](https://doi.org/10.17509/ijal.v5i2.1348)
- Shams-Abadi, B. B., Ahmadi, S. D. & Mehrdad, A. G. (2015). The effect of Edmodo on EFL learners' writing performance. *International Journal of Educational Investigations*, 2(2), 88-97.
- Siahaan, E.B. (2020). Students' perception of Edmodo use as a learning tool. *Journal of English Teaching*, 6(1), doi: [10.33541/jet.v6i1.1061](https://doi.org/10.33541/jet.v6i1.1061)
- Topping, K. J., Douglas, W., Robertson, D., & Ferguson, N. (2022). Effectiveness of online and blended learning from schools: A systematic review. *Review of Education*, 10, e3353. <https://doi.org/10.1002/rev3.3353>.
- Wenger, E., & Wenger, B. (2015). *Communities of practice: A brief introduction*. Retrieved June 4, 2017, from <http://wenger-trayner.com/wp-content/uploads/2015/04/07-Brief-introduction-to-communities-of-practice.pdf>
- Witherspoon, A. (2011) Edmodo, A learning management system. Retrieved January 19, 2017. From: www.pluginotechnology.com/2011/01/edmodo-a-learning-management-system/