



## Students' View on Using Online Application to Work on Online Assignment

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### ABSTRACT

*This research aimed to examine students' views on using online applications, particularly Edmodo to do online assignments (e-assignment). This study was conducted at Universitas Muslim Maros in the English language education department. Eight students joined as the participants voluntarily. This research used qualitative research with a semi-structured interview method. Data were recorded then transcribed. The data then were analyzed using thematic analysis. The result showed that most participants were engaged to work on their assignments online. Positive views were given by the participants as they gained effective learning through the online assignment. However, some students felt the pressure when doing online learning. The big problems are a low internet connection and the use of timer features.*

**Keywords:** Online Learning, Online Assignment, E-assignment, Edmodo.

### INTRODUCTION

Over 100 years, technology has played important roles in almost all aspects of people's life especially in education (Strimel & Grubbs, 2016). Many Schools and universities applied blended learning to be part of the advance of technology in education. But still, there were educational institutions that considered online learning as a supplement method to achieve learning objectives. However, everything changed when an outbreak struck almost all nations around the globe. During the outbreak,

the physical closure of all educational institutions from countries affected by the outbreak needs to migrate from face-to-face interaction into online learning to run the teaching and learning process whether they are ready or not (Adedoyin & Soykan, 2020; Dhawan, 2020).

Online learning is not new to the world of education. However, institutions that do not apply full-time online learning, become overwhelmed to find suitable methods to achieve learning outcomes. Like it or not, they

have to join the trend. Dhawan (2020) stated that online learning becomes the victor ludorum in this pandemic era as it is not about choosing the right choice to advance quality education. It is more about the necessity to adopt online learning methods to ensure the educational process can run following the academic calendar. Many problems arise from this sudden change. Song et al. (2004) revealed that when it comes to online learning, major problems such as the inability to understand teachers' instruction and the difficulty to solve technical problems can become a hindrance to successful learning. These problems can lead to feelings of boredom and disinterest to join online classrooms (Dhawan, 2020). Therefore, educators fall from ultimate depression to achieve learning outcomes.

Educators and scholars do not stand idle to solve these problems. Studies have been conducted to raise awareness of the importance of online learning (Adedoyin & Soykan, 2020; Efriana, 2021) as well as to find suitable methods to teach online learning (Gustina et al., 2020; Sefriani et al., 2021). Many online learning methods are using online platforms. One of the friendly platforms that have been applied in the world of education is Edmodo. Edmodo is defined as a free online learning platform to access learning material uploaded by teachers (Ekici, 2017) which can be accessed freely via computer device or downloaded via mobile phone (Siahaan, 2020). Furthermore, According to Cauley (2012, as cited from Etfita, 2019),

Edmodo is created for virtual learning environments which adopts ideas of social networking. Its display has similarities on the social media Facebook. It is called "Facebook for education" (Siahaan, 2020) as it is easy to use and it only consumes a small amount of battery in mobile phones (Halil, 2020). For that matter, teachers and students can communicate with each other virtually and create appropriate classroom interactions (Etfita, 2019).

To have effective online learning, Edmodo offers many features that can be used to support effective learning and promote collaborative learning between teachers and students (Gabrina & Rahmawati, 2019). Some of the features are "sharing and storing content, conducting and doing quizzes, sending and submitting assignments, giving and getting feedback, commenting and discussing lesson topics" (Gabrina & Rahmawati, 2019). Frankly speaking, Edmodo in use provides advantages through the varieties of its features particularly online assignments in the form of quizzes and tasks (Gustina et.al., 2020), such as a) Direct assessment from teachers, b) fast feedback from teachers' assessment, c) discipline in terms of time management to submit assignments d) flexibility which means students can do the assignments anywhere as long as they have the application in their devices, e) online assignment submissions without the need to hand it out directly to teachers, f) notifications that can function as a reminder, f) accessible for many types of documents such as pdf, word, and jpg.

Further, Using Edmodo to work on online assignments gives a positive impact on the development of students' learning. Bayne (2015) claimed that Edmodo has three criteria that can help students to have effective learning rated based on technical perspectives, they are "1) Usability – ease of use. Students/teachers/parents/administrators can learn how to work on the learning features such as content and learning management which lead students to easily submit their assignments from teachers. 2) Accessibility – accessible to all users. Students/ teachers/parents/administrators can access the tool using various devices, with all browser types, and from anywhere, anytime, and anyplace. 3) Compatibility – compatible with multiple devices and equipment. Since users will not all have the same devices or equipment, the tool must be flexible enough to be used with a variety of devices or equipment" (p.3).

The research on online learning due to today's outbreak has been conducted massively. Many researchers rise this problem and it becomes a phenomenon among the researchers. Dhawan (2020) conducted a systematic review of online learning. He conducted a systematic review using SWOT analysis over online learning literature. In his article, he revealed the strengths and weaknesses of online learning. He also put some light on the rise of edtech during the pandemic. Meanwhile, Mahyoob (2020) researched to examine EFL students' new experiences using online learning. Unfortunately, the result of the

study gave a negative view on the use of sudden online learning. The students were not able to achieve learning outcomes and were struggled to develop their language ability. This result is in line with a study carried out by Efrina (2021) who found that the application of online learning in this pandemic era caused many problems to stakeholders at the education level. However, it is undeniable that the benefits of online learning have been perceived by many people in the education field for a long time. Gilbert (2015) conducted a study about the effectiveness of online courses at the high school level. She found that all participants were eager to join the online course. Through an online course, they could work at their own pace and gain unlimited access to internet sources. They also benefited from online discussion. Yet, they also experienced difficulties transferring the learning from the traditional way to online learning, mainly direct interaction with the teachers. Overall, apart from the drawbacks, all participants still wanted to be part of online learning. Another study comes from Raja & Nagasubramani (2018). In their research, they claimed that many people have gain benefits from the efficiency of the advanced technology to do online learning. They said that using technology made the teaching and learning process easier.

Therefore, finding a suitable way, yet friendly to students, is necessary. Some previous studies under the effectiveness of Edmodo had been conducted in many areas of education

even before the pandemic hit the world. (Cakrawati, 2017) researched EFL learners. She focused on students' perceptions toward how online learning platforms influence students' language abilities. In this research, the researcher focused on Edmodo and Quipper as well-known platforms among English language teachers. To get data, the researcher involved 40 students as participants. The data then were gathered using questionnaires and interviews and analyzed using a mixed-method approach. The result shows that Even though most students experienced difficulty accessing the tools due to unstable connection, most of the participants agreed that both Edmodo and Quipper were efficient to be applied as online learning tools. Both platforms showed effectiveness and efficiency in terms of time learning management and can assist the students to practice their language skills and advance their vocabularies.

In this pandemic era, (Gustina et al., 2020) conducted a qualitative study about how Edmodo Smartphone Application contributed to support assessment in the learning process. This study addressed students' paper-based assessment problems. This is due to the fact that for printable assignment techniques, students sometimes needed to wait longer to obtain feedback from teachers. To solve the problems, the writers used online assessment using Edmodo. Data for this study was obtained using questionnaires from 34 respondents who were in the learning process and used Edmodo as an

online learning application. The result showed that both teachers and students were satisfied with the use of Edmodo. The teachers found it easier to provide evaluation for students' work. Meanwhile, the students were motivated to do the assignments as Edmodo has many interesting features that support students' learning.

This research was presented to acknowledge how the Edmodo application assisted students to get familiar with online learning. This research focused on students' perspectives of online assignments and how these assignments help students to experience effective learning

## METHODS

This study employed a qualitative method design using the phenomenology approach. Qualitative research is defined as a systematic research process that focuses on reports of certain experiences that cannot be explained numerically (Hancock et al., 2007). In other words, qualitative research is used to explain social phenomena that happen in society. This research used the phenomenology approach as data were obtained to interpret the gathering data from participants' perspectives (Hancock et al., 2007). Moreover, Gunawan (2013) has also stated in Astri & Fian (2019) that qualitative research is a kind of research without statistical or calculation methods.

This study was conducted at Universitas Muslim Maros in English Education Department. Eight students joined this research as

participants voluntarily. All participants met the criteria of purposive sampling. This sampling technique is used to select participants who experience the topic of interest on a phenomenon (Palinkas et al., 2015). The participants were who had experienced in online learning using Edmodo. Therefore, students who never experienced online learning using the Edmodo application were not allowed to join. Research data were collected using a semi-structured interview. Then, the data were analyzed using thematic analysis based on Braun and Clarke's six phases guidance (Braun & Clarke, 2006).

## **FINDING AND DISCUSSION**

### ***Findings***

As mentioned previously, eight students participated in this study. All participants were interviewed using a semi-structured interview. All the questions were about their experience working on online assignments (e-assignment) using the Edmodo application. After analyzing participants' data, four themes were created which were used to elaborate on students' opinions. Generally, working on their assignment using the Edmodo application had a positive impact on students' learning. However, the drawbacks still emerged which need anticipation.

#### **1. E-assignment as a tool to advance learning**

From the interview data, some students considered online assignments as a good way to enhance their learning. They

also argued it is a good practice for their knowledge from face-to-face learning in the classroom. Student A contended that e-assignment is a good exercise after learning new material while Student E said that it was an excellent way to repeat the lesson to understand it better. In line with those statements, student H expressed her opinion over the online assignment saying that the online assignment has an important role to assess their language skills

*"...train us easily without even going to school" (Student A)*

*"It is simple, sharpen our brain and refresh the previous lesson" (Student E)*

*"It is important, so we can evaluate our ability" (Students H)*

In this research, the researcher used the online application Edmodo to form online assignments. This application provides a timer that can set how long students can answer the question. The use of a timer in e-assignment has been responded to differently by all participants. Some students explained that timer has effective functions such as engaging them to do the task because they do not want to be late submission.

*"It raises my adrenaline ... I don't want to lose the time" (Student F)*

The timer also allowed students to be more focused when answering the questions.

Therefore, it becomes a challenge to finish the task on time.

*"I become more focus on the assignment" (Student H)*

*"It is challenging because we have to race against the time" (Student C)*

*"it is important because it trains me to think fast" (Student A)*

The other benefit of time is that students will get used to thinking fast. When doing online assignments, students will work for a limited time. Moreover, students become more disciplined due to the limited time. they will work on it to avoid being in a late submission. However, if it is done traditionally, sometimes students are lazy and timid to do the task. It then becomes a burden when they forget to do it until the time limit. Student E said:

*"in my heart, I always said 'I have to do the assignment before the due date'" (student E)*

*"if it is on paper... I will say 'later, I still have much time'"*

## **2. E-assignment as a source of motivation to do homework**

All participants agreed that e-assignment is a source of motivation as it has a reminder to do homework. In this study, the researcher used Edmodo to perform e-assignment which also has a mobile application version that students can download in the application store. This

mobile application has a notification if teachers or students post something. According to Student C, e-assignment in her mobile phone became an alarm to do the homework. Every time she opened her mobile, she remembered that there was homework to do and as soon as a notification from the Edmodo application arrived on her cellphone, she was curious about the homework. Meanwhile, another participant said nowadays people spend most of their time with their cellphones. As a result, she always noticed that there was homework that needed to be worked on. It can be said that having an Edmodo application kept students from forgetting their homework and this e-assignment also triggered students' curiosity to do their task.

*"Every time I open my cellphone, I always remember about my homework. When homework notification arrives on my phone, I want to work on it at once" (Students C)*

*"In this era, everyone focuses on their cellphone. Whatever they do, such as sleeping or others they will remember [from notification] that they have homework to do" (student E)*

In the meantime, Student E added her opinion that the notification from the application reminded her to restudy the lesson material before working on the homework. She argued that she needed to restudy the material, therefore, she would be

able to answer the homework correctly. It can be said that having notification as a reminder to work on online assignments can trigger students to study diligently and the chance to forget doing the homework is much lesser than using homework or paper-based homework.

*"When a notification arrives on my cellphone, I immediately open the lesson material in my book and restudy it. So, I will not forget the material and I can answer the questions"(student E)*

### **3. E-assignment as a convenient way of doing homework**

In this technology era, most students contend that working with technology is more efficient than with paper and pen/pencil. In this study, most participants have the same opinion of why e-assignment is more convenient. They said that e-assessment saved their time. They did not need to work on paper and just simply typed on their computer or mobile phone. Therefore, the participants assumed that advanced technology gives positive benefit and working online simplify students' work

*"In my opinion... it saves more time"  
(student F)*

*"Efficient. I don't need to use paper"  
(Student G)*

*"This assignment is efficient for me"  
(student F)*

Some students were amazed by advanced technology. As almost all students consider that the internet is only for entertainment such as social media or reading news online, it is beyond their imagination to use the internet for doing homework. They admitted that it made their school life easier. They could do the assignment on their phone or computer whenever and wherever and submit it online.

*"current development of technology such as online assignments provides an easy life for students ... the access is easier because, in this digital era, most work can be done online"  
(Student F)*

*"feeling sophisticated. I can work on my assignment and submit it online"  
(Student A)*

*"Can be done anywhere, anytime. I just spare my time to work on my assignment" (student G)*

One benefit that can be acquired through e-assignment is students are engaged in working on it because they feel curious and want to open the online task immediately. Indeed, for all participants, e-assignment is a novel way of working on their tasks. Therefore, they were excited every time the teacher posted a new assignment. Most participants said that they felt curious every time they got a notification on their phones. They were curious about what model of task the teacher gave them.

*"I want to know the test" (Student F)*

*"I am curious whether my answer correct or wrong (Student A)*

*"I am curious about the test model" (Student D)*

The other interesting feature of the Edmodo application is it has a chat application as social media does. These features can be used as one is commented on the other's posting. One of the students said that using this facility was like having a chat with friends, therefore, she said that this chat feature made her close to her teacher. On the other hand, the teacher can reply to students' questions in the feature.

*"I like the chatting facility, it makes me closer to my teacher, because we can interact online. I also can download the material"*

#### **4. Drawback of e-assignment**

Even though e-assignment has positive feedback from most of the participants, there are still drawbacks that need to be considered. As mentioned previously, most participants come from district areas where the internet is not evenly distributed. Some areas even have bad internet signals which become a problem for students when they work on the assignment. Furthermore, to do their task, they need to buy internet data. One of the participants said that she only did the assignment if she had internet data. If she

did not have it, she chose not to do the assignment.

*"I have problem with my network" (student A)*

*"If I have internet access, I will work on it. If not... I won't"(Student E)*

The other negative reaction comes from the timer. Even though most students agreed that the timer engaged them to do the task, some students also claimed that they are burdened with the timer. They felt nervous and afraid of not being able to answer the questions on time. The limited-time made them less focused on answering the questions.

*"It's making me nervous because I need to race against the time. I am afraid of losing the time" (Student B)*

*"I did not focus on answering the question due to the limited time" (Student D)*

*"I feel so nervous, I am afraid I don't have enough time to answer the questions"( Student E)*

#### **Discussion**

This research aimed at finding out students' perspectives on an online learning application, particularly Edmodo. After analyzing the data, Participants in this study showed how online assignments (e-assignment) influence their learning. The findings show that using e-assignment through Edmodo towards students manifested benefits with positive results, however, barriers were also inevitable.



**Benefits of online assignment toward student's language skills**

Studies about online learning have proven to benefit students to improve their learning ability (Dhawan, 2020; Gustina et al., 2020; Halil, 2020). When online learning is applied using suitable resources and platforms, students can use them effectively (Winter et al., 2010). In this research, the students agreed that using online assignments gave them more opportunities to understand materials better as they were able to learn the materials before answering the assignment. According to Cakrawati (2017) in her study about the use of online learning platforms in EFL classrooms, the chance to understand online learning materials uploaded by teachers are higher and through online assignment, students can practice their language skills resulting in significant development in their language skills. Thus, it can be said that e-assignment is presumed to have positive influences as good learning practice and to trigger the development of their abilities to become better.

In this digital era, mobile phones have become a lifestyle for most people around the world. It is used not only for communication and entertainment purposes, but also for information and education purposes (Gabor & Péter, 2015; Valk, Rashid, & Elder, 2010). Nowadays, all famous online learning applications can be installed on mobile phones such as Edmodo. All participants said that they

were rarely without their mobile phones. When they opened their phone they remembered they still had assignments to do. Therefore, having installed an online learning tool can give a source of motivation to work on their assignment as the assignment alert will remind them that they have work to do when they open their phone. This finding is in line with a study conducted by Gustina et.al. (2020) who found that Students benefited from the reminder feature of online application therefore the students could become disciplined by setting their own time to work on their assignment. Furthermore, the students also could get motivation from the timer feature. Even though not all participants took advantage of this feature, some students said that the timer gave them the motivation to be disciplined and was able to submit the e-assignment on time. As Gustina et al. (2020, p. 775) said that "student discipline will influence interest and motivate students in doing assignments"

The advanced technology yields positive development in the world of education, especially the easy access of online learning applications credited to internet availability. As a result, Students and teachers can carry on education progress without the need to meet face to face. In this research, participants claimed that when getting an assignment from the teachers, they benefited from the online learning application as they could submit it at any time before the due date. Gilbert (2015) in his article said that flexibility is the reason why

students are attracted to online learning which means that they can submit their work in accordance with their time and place that is compatible with their learning needs. The other similar finding comes from Gustina et.al (2020). They claimed that the students are not constrained by time and place as they can submit their assignment whenever and wherever as long as they have an internet connection and the due date has not ended yet.

Raja and Nagasubramani (2018) in their articles contended that students obtain advantages from technology because “the use of the internet allows students to find amazing convenience, they can find various kind of help, tutors and other kinds of assisting material which could be used to academically improve and enhance their learning” (p.33). It means that online assignments are convenient to students because it makes their school life easier. A bunch of supporting materials on the internet can help the students do their homework. Furthermore, online assignments can become more effective to assist certain students in understanding lesson material (Brewer, 2009).

It is undeniable that many students experienced online learning for the first time. Fortunately, most of the students gave positive feedback on the use of online learning. They said that using their electronic devices for learning triggers their curiosity and improves their motivation to learn. This finding is in line with Cakrawati's (2017) research finding who found

that online learning using platforms such as Edmodo was an interesting experience for students in terms of the effectiveness of learning such as not much time-consuming.

### **Barriers of online assignment towards students' language skills**

Some research on online learning considers unstable internet connections as the main barrier (Cakrawati, 2017; Mahyoob, 2020). In Indonesia, the internet connection in the city is different from in the small town. Most participants live in small villages where internet connection is not as fast as in the big cities. Therefore, some students admitted there were times when they were late or could not submit their assignments due to internet errors. Similar to these findings, Mahyoob (2020) claimed that students and teachers who live in remote areas encountered difficulties in accessing online lessons and downloading learning materials due to bad internet connections. On top of that, due to this problem, some students failed to take online exams (Cakrawati, 2017; Mahyoob, 2020). However, the unstable connection is not the only problem. To access the internet, students must have internet data on their devices. According to Efriana (2021), internet data was expensive and students who came from middle to lower class economies struggled to buy the internet data. Therefore, some students sometimes chose not to do the assignment with the excuse of not having internet data.

The other problem when doing online assignments is the limited arranged time from teachers. Even though some students considered timer as a push to work in a disciplined manner, some students were not getting used to it. They then become anxious and afraid of not submitting the assignments on time. This timer made students unfocused to do the task. This can happen if students do not have high discipline and struggle to have self-regulated learning. Gilbert (2015) contended that problems with a lack of self-regulated learning produce low self-responsibility resulting in poor quality of work or late assignments. They often argued that the time is not sufficient enough to complete the assignments.

#### **CONCLUSION AND SUGGESTIONS**

The rapid change in today's world due to pandemic outbreaks has a very influential impact, particularly in education. Lockdown has been implemented in many countries around the world. Therefore, online learning is chosen as the only way to keep education running as it is. The reality is that many countries consider online learning as complementary to their learning system and they are not ready for this massive sophisticated learning method. However, educators need to find the best way to adjust students to this new learning model. In this research, the researcher offered an online learning platform that is friendly to the students and is called Facebook for education. It is Edmodo. Edmodo supports online learning in many ways, particularly to develop students'

learning skills. The features such as quizzes, assignments, timer, chatting facility can support students to have effective learning. The result of this study showed that working on online assignments assisted them to understand the material. From their perspectives, the use of online assignments gave a positive impact on their learning. Using a timer to work on assignments had them learn how to handle effective time management. However, as the coin has two sides, using online learning platforms to work on assignments also has drawbacks. Generally, a low internet connection becomes the main problem accessing the learning assignments and materials. For the platform itself, the use of a timer became burdens to some students. They contended that the timer made them nervous. Mostly, they cannot complete the assignment due to the limited time or they lost the internet connection So that their assignments were considered as a late submission. In short, Working on online learning assignments using the Edmodo platform provides many advantages. However, it also had some issues that needed to be tackled. It is suggested that low connection problems need to be solved sooner. The government needs to take some actions to solve this problem. For future researchers who work on online learning, this research can be a source of reading material and reference.

## REFERENCES

- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environments*, 1-13.
- Astri, Z., & Fian, A. (2020). The Sociolinguistics Study on the Use of Code Mixing In Gita Savitri Devi's Youtube Channel Video. *SELTICS*, 83-92. <https://doi.org/10.46918/seltics.v0i0.728>
- Bayne, G. A. (2015). Asynchronous communication tools. *Foundations of Distance Education*.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Brewer, D. S. (2009). The effects of online homework on achievement and self-efficacy of college algebra students. *Graduate Theses Dissertations*
- Cakrawati, L. M. (2017). Students' perceptions On The Use Of Online Learning Platforms In Efl Classroom. *ELT Tech: Journal of English Language Teaching*, 1(1), 22-30.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5-22.
- Efriana, L. (2021). Problems of Online Learning during Covid-19 Pandemic in EFL Classroom and the Solution. *JELITA*, 38-47.
- Ekici, D. I. (2017). The Use of Edmodo in Creating an Online Learning Community of Practice for Learning to Teach Science. *Malaysian Online Journal of Educational Sciences*, 5(2), 91-106.
- Etfita, F. (2019). Students' perspective on the use of Edmodo as an assessment tool. *SHMIC: Journal of English for Academic*, 6(1), 18-25.
- Gabor, K., & Péter, E. (2015). Implementation of mobile phones in education. *Research in Pedagogy*, 5(1), 98.
- Gabrina, P. A. S., & Rahmawati, F. (2019). Exploring the Use of Edmodo in an EFL Classroom. *Journal of Foreign Language Teaching Learning*, 4(2), 106-125.
- Gilbert, B. (2015). Online learning revealing the benefits and challenges.
- Gustina, G., Ananda, A., Kosasih, A., Zakirman, Z., & Ardimen, A. (2020). Contribution Of Edmodo Smartphone Application To Support Assessment Activities In The Social Science Learning Process; Students Review. *International Journal of Scientific & Technology Research*, 9(03), 774-777.
- Halil, N. I. (2020). The Effectiveness of Using Edmodo as an Online Learning Platform in Covid-19. *Jurnal Penelitian dan Pengkajian Ilmu Pendidikan: e-Saintika*, 4(3), 284-298.
- Hancock, B., Ockleford, E., & Windridge, K. (2007). *An introduction to qualitative research*. The NIHR RDS EM / YH: Trent focus group.
- Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners. *Arab World English Journal*, 11(4).
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544.

- Raja, R., & Nagasubramani, P. (2018). Impact of modern technology in education. *Journal of Applied Advanced Research*, 3(1), 33-35.
- Sefriani, R., Sepriana, R., Wijaya, I., & Radyuli, P. (2021). Blended Learning with Edmodo: The Effectiveness of Statistical Learning during the COVID-19 Pandemic. *International Journal of Evaluation Research in Education*, 10(1), 293-299.
- Siahaan, E. B. (2020). Students' Perception of Edmodo Use as a Learning Tool. *Journal of English Teaching*, 6(1), 12-23.
- Song, L., Singleton, E. S., Hill, J. R., & Koh, M. H. (2004). Improving online learning: Student perceptions of useful and challenging characteristics. *The Internet and Higher Education*, 7(1), 59-70.
- Strimel, G., & Grubbs, M. E. (2016). Positioning technology and engineering education as a key force in STEM education. *Journal of Technology Education*, 27(2), 21-36.
- Valk, J.-H., Rashid, A. T., & Elder, L. (2010). Using mobile phones to improve educational outcomes: An analysis of evidence from Asia. *International Review of Research in Open Distributed Learning*, 11(1), 117-140.
- Winter, J., Cotton, D., Gavin, J., & Yorke, J. D. (2010). Effective e-learning? Multi-tasking, distractions, and boundary management by graduate students in an online environment. *ALT-J, Research in Learning Technology*, 18(1), 71-83.