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PROMOTING ACTIVE AND INTERACTIVE LEARNING IN A HIGHER EDUCATION ONLINE CLASS

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Abstract:
This study investigates the use of Nearpod in a Higher Education teaching and learning process which was conducted online due to the COVID-19 pandemic. It focuses on evaluating how Nearpod can promote active and interactive learning that has become one of the challenges in managing online classes with a large number of students. This qualitative descriptive study employed classroom observations, interviews, and questionnaires to collect the data. The participants involved in this study were 100 students from a university in Bandung. The research findings reveal some benefits that a cloud-based education platform, Nearpod, is likely to be effective to attract students' attention and promote their interaction and engagement. The students have a good perception towards the use of this tool as it provides various, fun, and meaningful activities. Furthermore, it allows them to get immediate feedback individually as proof of their comprehension of the materials. On the other hand, the aforementioned strengths might be constrained by the unstable internet connection and limited capacity of the selected Nearpod type. Based on the study, it is recommended to use the platform with different levels to see whether it will be as effective and engaging as at a higher level.

Keyword
Online learning, *Nearpod,* active, interactive, higher education teaching

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INTRODUCTION

The emergence of the Covid 19 pandemic has forced all educational institutions which include schools, colleges, and universities to shift offline learning into online learning. In the online learning, students and teachers are exposed to conduct a virtual interaction using technology (Dahlia, et. al., 2020). This condition has required a new adaptation not only from the students but also mainly from the teachers. One of the challenges recorded in the previous study includes the lack of communication and interaction quality in the learning process which leads to lower motivation from the students (Rahayu & Wirza, 2020). From the teachers' point of view, online learning can be daunting as some of them face difficulties in using technology, designing interesting and engaging material, presenting the material, monitoring, assessing, and giving feedback (Rahayu & Wirza, 2020).

Virtual learning challenges the teachers to provide interactive and engaging lessons where the students can learn actively. According to Matsushita (2017) in (Hakami, 2020), active learning is an approach that enables students to take control of their learning by encouraging them to be involved in the activities. It is different from "traditional" modes where students are passive only receiving knowledge from the teacher. Active learning has

been reported to have a good impact on students' learning outcomes and experiences (Sanmugam et al., 2019). It is also suggested that students are more likely to generate new understanding when they are involved and engaged actively (Chi, 2009, in (Sanmugam et al., 2019).

For implementing active learning in higher education, technology has to be seen as a medium to support the teaching and learning process (Hakami, 2020). With that being said, the paradigm of learning remotely should be adjusted to make sure students can experience the active learning they can get in the offline classes. Accordingly, teachers need to know how to facilitate interactive communications with the support of the features provided in learning tools (Kapur & Bielaczyc, 2012). This potential interaction will be difficult to take place if a learning tool is only used as a presentational tool (Hakami, 2020).

One of the cloud-based technology that is used for interactive learning environments is Nearpod. It is a multi-platform e-learning tool that allows students to have real-time interactions with the teacher and other students with independent learning space Mattar, 2018 in (Hakami, 2020). Nearpod is believed to promote active learning as it increases interactivity and collaboration by allowing teachers to synchronize, present, and control materials during class time (Dong, Kavun, Senteney, & Ott, 2018 in (Hakami, 2020)). Moreover, it enhances students' learning experiences as it provides many features with various activities where students have more opportunities to be involved in learning and experience dynamic interaction with the teacher and their peers (Hakami, 2020).

This study tried to develop a learning environment that enables higher students' interaction during the learning process by using Nearpod paired with the video-conference system to guide students on verbal discussions. The learning process combines various contents presentations, collaboration activities, and real-time monitoring and assessment. Therefore, the main objective of this study is to identify the extent of using the Nearpod in promoting active and interactive learning.

LITERATURE REVIEW

Online learning can be defined as one of the gates to learning experiences with the use of technology (Carliner, 2003 in (Rahayu & Wirza, 2020)). During the pandemic, online learning is no longer seen as an option but a necessity to make sure students still get the education they need. The technologies used in online learning are varied such as smartphones, laptops, i-pad, and tablets (Rahayu & Wirza, 2020). Many platforms emerge offering learning tools that can be integrated with the technology. These platforms are equipped with various features to promote active and effective learning. They usually allow registration, material delivery, assessment of the activities, and interaction between students with their peers and teachers.

Based on its features, online learning can be defined as learning experiences in synchronous or asynchronous environments (Coman et al., 2020). Both learning environments enable students to learn remotely and interact with the teachers and other students. However, the synchronous learning environment provides real-time interactions between educators and learners which enable immediate feedback that cannot be provided in asynchronous learning environments (Coman et al., 2020).

To make sure that online learning is effective, eight principles need to be measured. They include whether or not the learning process encourages contact between students and the faculty, promotes collaborative learning, provides quick feedback, encourages active learning, allows timely-based tasks, allows high-expectations in learning, and promotes diversities in learning, allows technology application (Cable & Cheung, 2017; Dhawan, 2020). Considering that, the analysis on the usefulness of E-learning in higher education became a subject of interest for many researchers.

Online learning has a lot of perks which offers a great deal of flexibility in terms of time and location and its possibility to create the teaching-learning process that are more student-centered, innovative, and flexible by customizing the procedures and learning platforms based on the needs of the learners (Dhawan, 2020). Other studies mention more benefits because online learning is more convenient and efficient, also material delivery can be more varied and be easily updated (Coman et al., 2020). Furthermore, it is mentioned that students were able to comprehend materials as well as or even better than in the traditional way. It particularly occurs with shy, easily intimidated, and slow learning who usually are not confident to speak up and express themselves in the face to face learning.

Besides the advantages, there are also some obstacles in the online learning process. The challenges include decreased motivation in some students, delayed feedback, or isolated feelings for the physical absence of classmates (Coman et al., 2020). Nevertheless, these problems can be solved if the teachers know how to adjust their teaching strategies integrated with the technology to fulfill the needs of students.

To assure that online learning is effective, (Cable & Cheung, 2017) suggested eight principles that need to be measured. They include whether or not the learning process encourages interaction between students and the faculty, promotes collaborative learning, provides quick feedback, encourages active learning, allows timely-based tasks, allows high expectations in learning and, promotes diversities in learning, allows technology application.

Nearpod is seen as one of the platforms that can be used as an alternative to conducting an online lesson which promotes interactions and engagement by allowing instructors to synchronize, present, and control materials in various ways (Dong, Kavun, Senteney, & Ott, 2018 in (Hakami, 2020)). The various and interactive features embedded in the platform result in purposeful outputs from each activity which is believed to develop student understanding of the materials.

This platform is a learning presentation device that synchronizes the presentation with other tools. Nearpod works in four stages. First, teacher creates a learning presentation that might include various content types such as slideshows, quizzes, resources, videos, polls, and other activities. Secondly, the teacher shares the presentation with the students using a specific auto-generated code through email, and/or Google classroom. Third, students log in and load the presentation with the code. Lastly, the teachers monitor the students' responses and provide them with feedback. There are two modes of learning from this platform. The first one enables students to study in a "live" session where the teacher takes control of the presentation, or a "student-paced" session, in which students access the content and do activities at their own pace (Shahrokni, 2018).

Other features offered by Nearpod include a repository of ready-to-teach course materials; free basic plan for teachers allowing the creation or use of slides, activities, and quizzes; a variety of assessment tools, including open-ended questions, polls, quizzes, drawings, fill in the blank items, and memory test; support for different resource types, including video, slideshow, audio, PDF, Field; trip Live (Virtual Reality), and Twitter stream; intuitive, user-friendly, and secure environment; compatibility with all types of platforms; opportunities for practice in both real-time and offline modes; detailed reports on students' performance. These features are designed to assist teachers in providing engaging lessons which support the teaching and learning program (Shahrokni, 2018). David Havens (2014) in (Hegarty & Thompson, 2019) offers a new framework for observing student engagement in the 21st-century classroom. He argues that a good technology tool for use in the classroom should include measurable elements of social motivation, creativity, personalization, educator engagement, and interactivity.

Based on the first element, the education technology tool used in class should be able to create the learning that forms student's social environment, through competition, collaboration, and gamification. For example, when a student has a problem with the application, the platform should allow him to connect with his pairs who understands the tool or the concept better to get an assistance. Another example is when a student submits answers to closed or open response questions on the platform, the teacher has a choice to present that student's answers. This is believed to increase their motivation in learning.

The second element mentions that the platform should promote students' creativity in the classroom to improve autonomy, curiosity, and novelty. For instance, the platform should enable students to take pictures, use media, and draw ideas before submitting them so that the teacher is able to review or share. Students should be able to bring their imaginations to life through the application.

The next point mentions that the platform should be able to keep students in their Zone of Proximal Development through personalization by creating content that is relevant to their lives and at their competency level which can be modified based on their learning profile. In this case, the platform should enable students to learn at their different learning paces. The third element is educator engagement which allows teachers to monitor students' learning process and provide immediate feedback. The platform should enable teachers to see how each student is coping with the content and the materials. Some

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available platforms haven't limited the analysis to multiple-choice data, some applications allow teachers to record, report, and share the students' learning results during the learning process to the students, parentscapture qualitative data in the classroom involving more stakeholders.

The last element regarding interactivity mentions that the platform should provide live feedback, review and rewind possibility, and understanding checks. For example, some applications allow students to see immediate feedback showing their scores so they can know their mistakes and make an improvement.

This research was conducted to identify and describe the use of Nearpod in a Higher Education Online Class in Bandung. It used qualitative research which applied descriptive study as its framework. Qualitative research focusing on certain phenomena does not have generalizability and comparability; however, it has internal validity and contextual understanding (Alwasilah, 2000). This research focused on describing the phenomenon of integrating Nearpod in an online class without any comparison of other platforms. Thus, a qualitative descriptive was considered to suit this research.

This study was undertaken in a private institute in Bandung. The participants of this study were 100 first-year students in the selected higher education in Bandung. The participants were between 16-18 years of age with nearly heterogeneous backgrounds. The data in this study were taken from three main sources: classroom observations, questionnaires, and interviews with the students. The description of how each data is collected and analyzed is presented below.

METHODS

Classroom Observation

In a qualitative research, classroom observation tends to be used as the main method of collecting data (Alwasilah, 2000). It was conducted to enable researchers to gain clear data regarding the use of Nearpod in a big class of online higher education. Additionally, it enables the researchers to identify strengths and challenges found during the teaching process. It is similar to (Cohen et al., 2020) who recommend the use of observation as it enables the researcher to collect 'live' data directly and naturally in the research site. As it was an online class, the classroom observation had been conducted using a zoom recorder and equipped with observation sheets and field notes.

Table 1
Classroom observation, Topic, Nearpod Features Used

No	Date	Topic	Nearpod Features	Methods
1.	21 July 2021	Parts of Speech	Collaborate Board Presentation Slides Draw it Open-ended question Time to Climb Web Integration Poll	Field Notes
2.	22 July 2021	Auxiliary Verbs	Collaborate Board Presentation Slides Draw it Open-ended question Time to Climb Web Integration Poll	Field Notes

The obtained observation data were analyzed by transcribing the video recording and observers' observation sheets and field notes. The data were then categorized and interpreted based on the frameworks of measurement for engagement with technology developed by David Havens (2014) in (Hegarty & Thompson, 2019) .

Table 2
Focus of Classroom Observation

Elements	Capacities
Social Motivation	Enabling students to learn in the context of the students' social environment.
Creativity	Enabling students to tie the amazing creation technology of tools in the classroom to lessons to enhance autonomy, curiosity, and originality.
Personalization	Keeping the students in their Zone of Proximal Development with content that is relevant to their lives and their competency level and modified for their learning profile.
Educator Engagement	Allowing the teacher to see what is going on or give live feedback.
Interactivity	Providing immediate feedback, ability to rewind or review, and checks for understanding.

Questionnaire

Questionnaire is the second instrument used in this study. The questionnaire was adapted based on the frameworks for engagement with technology developed by David Havens (2014) in (Hegarty & Thompson, 2019). The questionnaire consisted of 16 multiple choice questions that were responded by clicking one of the provided Likert scales or yes/no answers and one open-ended question related to five points of engagement with technology. The questionnaires were administered at the end of the last online class of the research using Google form.

The data from the questionnaire were analyzed through several steps. First, the students' answers were categorized and calculated into percentages to know their perspectives on the use of Nearpod in their English online class. The data were then interpreted in accordance with the technology engagement theories as described in the literature review part.

Interview

The third instrument utilized in this study was interview. The interview that was managed with the participants at the end of the teaching implementation aimed to gain in-depth information about what has been implemented based on the students' perspectives. It is in line with (Alwasilah, 2000) who affirms that interview is such an effective instrument to attain respondent's deep information. This might occur for some possibilities that enable the interviewer to confirm the data that was previously obtained and ask more follow-up questions to the interviewee so that they can get clearer information and better understanding. Moreover, historical information can be given by the interviewee during the interview (Alwasilah, 2000; Crresswell, 1994). Accordingly, in-depth information can be well obtained.

The interview in this study was held with 7 students that were randomly chosen based on their ability to join the whole online lessons. It was conducted and recorded at the end of the teaching program by using English and Indonesian. Indonesian was used when the students seemed confused about the questions in English.

The interview data were analyzed in three steps. The first step was transcribing the interview record so that the interviewee's data can be interpreted precisely and accurately. After that, the interviewee's data were categorized based on the interviewees' perception regarding the teaching program, including benefits as well as challenges found during the teaching program, and their suggestions for the improvement of the teaching program. The last step was interpreting the data and relating them to the relevant theories.

RESULTS AND DISCUSSION

Concerning the research question, it was found that the use of Nearpod had assisted students to be actively and interactively engaged in the online higher education class. The assistance of students' engagement was attained in four ways. Those are creating a learning environment that promotes the elements of competition, collaboration, and gamification, providing varieties of content and activities, allowing immediate supervision, feedback, and assessment, and offering practicality in learning.

Creating A Learning Environment Which Promotes the Elements of Competition, Collaboration, and Gamification

To engage students interactively, a technology tool used in an online class should be able to create learning that promotes students' social motivation which includes elements of competition, collaboration, and gamification (Hegarty & Thompson, 2019). In this sense, Nearpod was observed meeting the requirement of this good technology for engaging students in the online class. Based on the observation, Nearpod has features of contents and activities that allow students to compete, collaborate, and have fun with meaningful games.

In terms of competition, the time to climb feature was found as an activity that entails high competitiveness. This gamified quiz presents questions that should be answered accurately and quickly by the students. The more accurate and quickly the students answer, the higher scores the students achieve. Every student's progress on answering the questions is displayed with animation and can be seen by both teacher and students. The scores of the students will be immediately displayed at the end of the quiz with an ordered rank, from the highest to the lowest. Thus, the students were motivated and challenged to do so to be in the first ranks of the quiz. Besides the observation result, this finding was also confirmed by the interview result that indicated the competitiveness in Nearpod features, specifically Time to Climb. On this point, two interviewees shared the same opinion:

> *It's quite challenging to make us answer the questions faster than others, but mostly I feel entertained as I've never done this before. (Alex)*

> *The questions are okay, the activities are fun, the challenging thing is that we have to fight with time answering the questions. (Felicia)*

The students' opinions above indicated that the Nearpod feature, Time to climb, was able to build students' competitiveness by challenging the students to answer the quiz questions accurately and quickly, even much quicker than other students. The competition was responded to positively by the students as it brought enjoyment and motivation for the learning as stated by one of the students in the interview:

> *The activities when we had to answer the questions, I remember one of the features, time to climb, it's challenging positively. (Lutfi)*

A similar answer was found in the questionnaire, one student answered that competing with friends made lessons more challenging and caused him to look forward to the next learning topic.

Besides competition, Nearpod was found promoting collaboration. According to the observation, the collaboration was mainly achieved in the collaborative board feature that allows both teacher and students to post text and/or images in response to the teacher's question. Using this feature, the students were able to see other students' responses and click the like button for showing their agreement on the statement posted.

In addition, the collaboration was observed during the group works using the draw it and open-ended questions feature. With an integration of Nearpod and zoom features, the students had opportunities to do the collaborative work by discussing the assignment with their friends in the zoom breakout room. In these kinds of group activities, every student was required to do his work on the draw it and/or open-ended questions features individually based on the group discussion results. Hence, the students were able to interact with their other friends. This finding was proven by the questionnaire result. It

showed that 79.5% of students agreed that they could have interactions with other students using Nearpod. It is in line with one of the responses in the questionnaire who reported that they could study together through slides on a private screen. It was then strengthened by the interviewees who elaborated that the collaboration and interactions were found during the discussion in the breakout room and the main room, also at feedback sessions, when the students' answers could be shared. For this one, 87,3% of students agreed that the lecturer and classmates were able to see the works that they had done in Nearpod.

Another element of social motivation suggested by H (Hegarty & Thompson, 2019)that was also found in the Nearpod was gamification. Nearpod had been observed as the all-in-one presentation, assessment, including its gamification activities. The observation indicated that gamification activities were mainly found in the time to climb, which is a gamified quiz. Alex, one of the interviewees said that the most interesting thing about Nearpod is the quizzes. He said:

> *They are packaged in an interesting display just like the time to climb.*

Different from Alex, Felicia, another interviewee, thought that everything in Nearpod is interesting and fun. Most comments in the questionnaire showed their interest in Nearpod because of gamification that made them enjoy the learning. Apart from that, Nearpod allows web integration. Thus, the gamification could also be obtained from other game resources by only putting a link, then Nearpod will immediately direct students to the web without having to open another window of the computer.

Providing Varieties of Interesting Contents and Activities

Variety was found as a component that successfully attracted students' attention and engagement in the online class conducted for this research. The data from the questionnaire showed that almost 100% of students agreed that the activities in Nearpod are various. In detail, 78,5% chose to agree and 16,5% strongly agree on this point. It was found that the students preferred this variety to the numerous ways of presenting materials and doing practices or assignments. This finding is in line with (Hakami, 2020) who stated that Nearpod is great to engage students even in a large class by providing different learning materials and tasks.

Not only various, the questionnaire data indicated that 96,2% of the students agreed that activities provided by Nearpod are also interesting. As a result, it was revealed that Nearpod is advantageous and motivating in learning. Besides engaging, trying out new technologies also made the students excited (Hakami, 2020; Lowry-Brock, 2016) One of the interviewees said that:

> *Mostly I was entertained as I had not done this before. (Alex)*

Nearpod variety and excitement were discovered as the most mentioned of Nearpod best things in the questionnaire. Based on the interview, the variety of interesting content and activities did not only assist the student's engagement in the online class but also helped them understand the materials better as described below.

> *I'm a visual type learner, I need to see something to understand it. When it comes to Nearpod, it has good features and is animated, which helped me a lot. (Lutfi)*

> *Because it has a lot of features, I can understand the lesson. The activities and discussions help me a lot. (Alex)*

> *I didn't understand (the materials) but it (Nearpod) helps. The activities help. (Kevin)*

Allowing Immediate Supervision, Feedback, and Assessment

The role of educator engagement in facilitating, supervising, and giving feedback is essential for the student's engagement in the online class. The learner-teacher/lecturer interaction including feedback is highly significant for education and learning (Kennedy, 2020). Nearpod was found meeting the need of this educator engagement. The observation showed that the teacher was able to see what's going on with every student's work which

then enabled her to monitor, assist, or correct when there was something wrong during the work. In addition, the number of active participants during the presentation or works can be viewed by the lecturer, so that the pace of the learning can be adjusted (Hakami, 2020; Lowry-Brock, 2016).

Additionally, the students' works were automatically recorded in the Nearpod which eased the review and feedback. The students' works that had been submitted could be shared by the lecturer and seen by other students for feedback. Based on the questionnaire, 87,3% of the students admitted that the lecturer and other students in the class were able to see the works they did in Nearpod. Some features such as time to climb, matching, and fill in the blanks even showed the score immediately after the works. This fact was confirmed by some students' elaboration in the questionnaire. Some said that the best thing they found about Nearpod was the possibility of immediate feedback as follows.

> *My answers were quickly recorded by the lecturer. (Student 1)*
>
> *I can answer questions live and teachers can directly check. (Student 2)*

According to David Hevans (2014) cited in (Hegarty & Thompson, 2019), the provision of feedback, rewind or review, and check for understanding is included in interactivity, a measurable element for engagement with technology. Related to this point, one of the interviewees believed that it was advantageous to improve her confidence as stated in the following.

> *For me, (Nearpod improves) confidence because usually, I'm not a confident person. Using Nearpod can improve confidence because our answers or activities can be seen by others. (Felicia)*

It is in accordance with (Dhawan, 2020) who revealed that E-learning was proven more effective than the face to face learning particularly for the students who used to be shy and had no courage to speak up in the classroom. The different learning atmosphere without people in the surrounding might be one of the factors of improving the students' confidence in online learning. Hence, those who enjoyed the online learning might not feel intimidated as if they were in the face to face class where everybody's reaction could be directly seen and heard.

Offering Practicality in Learning

Another way of how Nearpod was found assisting the students' engagement in online higher education is by offering practicality in Learning. 98,8% of the students positively responded to the questionnaire about joining Nearpod. To join the Nearpod, the students were given a link in a zoom chat box. That Nearpod link immediately directed the students to join the Nearpod lesson on that session with a name requirement before that. Once they had joined, they would have been able to follow all contents and activities from that Nearpod lesson.

Based on the questionnaire data, 93.6% of the students agreed that they found easy-to-follow activities in Nearpod. The Nearpod lessons on this research were set live with a control from the lecturer so that all students would see and do the activities on the same page opened by the lecturer. This thing would help the students focus on the material being presented or the practice is completed.

In terms of anticipating the difficulty during the use of Nearpod, 41.8% of respondents found it was quite easy to get help while using Nearpod. 36,7% found it was easy and 7,6% found it was very easy. It indicated that the majority of the students had a positive perspective related to getting help while using Nearpod. In conclusion, Nearpod is practical to be used by both the teachers and the students. Not only practical in terms of joining the web, but also following the whole lesson, including the activities, and getting help while using it. This result is similar to the findings reported by other researchers who revealed that compared with other learning applications, Nearpod was much easier (Hakami, 2020; Lowry-Brock, 2016).

Nevertheless, the practicality of using Nearpod might be constrained by three things. Those are an unstable internet connection, the device used, and technical issues related to

the device used. The unstable internet connection was found to be the most common problem of using Nearpod. The students might try to reload the link until it gets better. The second issue is related to the device used. Even though Nearpod can be opened on any device, it was found that using a computer or laptop would be much better than using a smartphone. It was due to the findings that some students found it a bit hard to open or use some features of the Nearpod. Lastly, the problem in using Nearpod might be also caused by the technical issues related to the device such as the specs, AdBlock, etc.

CONCLUSIONS

Based on the data obtained from classroom observation, questionnaire, and interview, it was revealed that despite some limitations, the use of a Nearpod had promoted students to be actively and interactively engaged in four ways. First of all, the engaging contents and activities in this instructional platform fostered the elements of competition, collaboration, and gamification. These three elements had resulted in positive impacts such as developing students' learning interest and motivation. Secondly, the encouragement of students' engagement in online learning was conducted by providing varieties of interesting content and activities. With the selection of appropriate materials, this variety did not only grant students enjoyment of learning but also helped them attain better materials comprehension. The third way of how Nearpod assisted the students' engagement is by allowing immediate supervision, feedback, and assessment. According to the data, the possibility of giving immediate supervision, feedback, and assessment did not only help the lecturers have easier control and review but also improve students' learning confidence and motivation. The last one is offering practicality in learning. The obtained data indicated that apart from the unstable internet connection and the used device technical issues, Nearpod was found easy to join and follow.

This study was conducted with some limitations. The first limitation deals with the duration of implementing this platform in the teaching process. As the implementation of Nearpod was only conducted in two meetings with 120 minutes for each, not many Nearpod contents and activities were used considering the suitability with the topic discussed. In addition, it was restricted with some technical issues related to the internet connection or hardware/software in the device used. However, this research can be helpful to introduce the students to the new online teaching platform that can be implemented better.

Based on the findings of the study, it is suggested that Nearpod can be used in other subjects and levels with more explorations of the contents and activities. On the point of that, there would be some other insights into its effectiveness and solutions to the challenges of engaging students in online learning.

REFERENCES

Alwasilah, C. (2000). *Pokoknya kualitatif: Dasar-dasar merancang dan melakukan penelitian kualitatif.* PT Dunia Pustaka Jaya.

Cable, J., & Cheung, C. (2017). Eight Principles of Effective Online Teaching: A Decade-Long Lessons Learned in Project Management Education. *PM World Journal Eight Principles of Effective Online Teaching*, *VI*(Vii), 1–16. www.pmworldlibrary.net

Cohen, L., Manion, L., & Morrison, K. (2020). Experiments, quasi-experiments, single-case research and meta-analysis. In *Research Methods in Education*. https://doi.org/10.4324/9780203029053-23

Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. *Sustainability (Switzerland)*, *12*(24), 1–22. https://doi.org/10.3390/su122410367

Crresswell, J. (1994). *Research design: Qualitative and quantitative approaches.* Sage Publications.

Dahlia, A., Musty, B., Rahman, A.A.,(2020). The Effectiveness of Blended Learning in Improving Students' English Speaking Ability. English Journal Literacy Utama, https://doi.org/10.33197/ejlutama.vol4.iss2.2020.2655.4585

Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, *49*(1), 5–22. https://doi.org/10.1177/0047239520934018

Hakami, M. (2020). Using Nearpod as a Tool to Promote Active Learning in Higher Education in a BYOD Learning Environment. *Journal of Education and Learning*, *9*(1), 119. https://doi.org/10.5539/jel.v9n1p119

Hegarty, B., & Thompson, M. (2019). a Teacher ' S I Nfluence on S Tudent E Engagement : *Journal of International Technology Education Research*, *18*, 113–139.

Kapur, M., & Bielaczyc, K. (2012). Designing for Productive Failure. *Journal of the Learning Sciences*, *21*(1), 45–83. https://doi.org/10.1080/10508406.2011.591717

Kennedy, G. (2020). What Is Student Engagement in Online Learning … and How Do I Know When It Is There? Melbourne CSHE Discussion Paper. *Melbourne CSHE Discussion Papers*, 1–6.

Lowry-Brock, M. R. (2016). The effect of using Nearpod as a tool of active learning in the high school science classroom. *Master Proposal*, *July*, 1–63. https://scholarworks.montana.edu/xmlui/handle/1/10072?show=full%0Ahttps://scholarworks.montana.edu/xmlui/handle/1/10072

Rahayu, R. P., & Wirza, Y. (2020). Teachers' Perception of Online Learning during Pandemic Covid-19. *Jurnal Penelitian Pendidikan*, *20*(3), 392–406. https://doi.org/10.17509/jpp.v20i3.29226

Sanmugam, M., Selvarajoo, A., Ramayah, B., & Lee, K. W. (2019). Use of Nearpod As Interactive Learning Method. *INTED2019 Proceedings*, *1*(March 2020), 8908–8915. https://doi.org/10.21125/inted.2019.2219

Shahrokni, S. A. (2018). *Nearpod*. *February*.