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How can teachers engage students in online learning? A Conceptual Framework

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Abstract. This article discusses how to teachers ensure further learning - post-learning in the emergency of the Covid-19 pandemic can effectively increase student ownership and engagement in online learning. Most educational institutions' closure resulted in a dramatic change in education, marked by the emergence of distinctive e-learning, where teaching was conducted remotely and on digital platforms. The transition in the education system impacts various stakeholders, especially teachers and students, in various ways. One of the issues surrounding students' engagement in schools and the learning process became a hot topic again, considering that recently almost all countries in the world have been targeted by the spread of the global pandemic Covid-19. There is almost no learning process without the engagement and activeness of learners in the process itself. Students engaged in their learning are energized by curiosity, originality, and satisfying relationships, leading to better academic achievement. Through the theoretical review and content analysis, the authors explained that the ownership and engagement of learners in online learning could be achieved by combining several strategies. Teachers need to reflect on these strategies and how each falls into this area of engagement. Some teachers may be able to apply quickly and through relative ease, while others require wise planning. Teachers need to think of one of the strategies that teachers can immediately implement to engage students in their learning.

Keywords. Covid-19, learning ownership, online learning, student engagement, teaching strategy.

1. Introduction

The Covid-19 pandemic has led to shifts and changes in many aspects of human life, including education. Based on global data monitoring of closures by Covid-19 obtained information that until February 2, 2021, there are 221,964,329 affected learners, 12.7% of total enrolled learners, and 28 country-wide closures (UNESCO & Education: From disruption to recovery, 2020). Meanwhile, in Indonesia, 646,200 schools were closed from early childhood education to higher education. As a result, 68.8 million students study at home, and 4.2 million teachers and lecturers teach from home (Faqir, 2020). Although this data is less updated but looking closely at the increasing victims of the Covid-19 pandemic in Indonesia, the actual data could be more than the previous data (Iswara, 2020).

Most educational institutions' closure resulted in a dramatic change in education, marked by the emergence of distinctive e-learning, where teaching was conducted remotely and on digital platforms. The transition in the education system impacts various stakeholders, especially teachers and students, in multiple ways. It is a new experience for them.

Various research results related to the effectiveness of distance learning during the Covid-19 pandemic, including the readiness of schools, teachers, and students and parents' perception – we can find in various literature. However, one of the issues surrounding students' engagement in schools and the learning process became a hot topic again, considering that recently almost all countries have been targeted by the spread of the global pandemic Covid-19. The extent to which elementary and high school students are involved in the school and the instructional activities is arguably one of the most important factors affecting students' academic results and behavior.

There is almost no learning process without participation or engagement and learners' activeness in the process itself. Every student must be involved and active; the difference is the degree of involvement and activeness of the students in learning. There are engagement and liveliness with low, medium, and high categories. It is where teacher creativity is needed for students to engage and actively participate in learning.

Engagement may seem different for everyone. Engagement in education is the basis for learning; a student who is not involved is less likely to succeed. The key to student success is through engagement that goes beyond check listing techniques or test scores. Students engaged in their learning are energized by curiosity, originality, and satisfying relationships. Student engagement in the virtual world will seem very different from the natural environment (conventional education) because teachers will not see students every day. Teachers should be able to maintain student interaction in a variety of ways. Consider some of the more critical grit and growth mindset ideas and how they can build student ownership of their learning, which works for hand in hand to build student engagement.

Student engagement is the key to successful teaching and learning, regardless of the content delivery mechanism's content and format. Student engagement is a challenge in traditional face-to-face classrooms and, even more contentiously, online learning. Online learning faces additional obstacles, including the fact that the design and development of learning must occur before delivering actual materials. Adequate time and resource management are required on the part of students as well as educational institutions when online, methods that encourage communication and interaction of students among themselves and schools are very different from face-to-face methods, and the implementation of efficient teaching tools used to provide online learning is a challenge for many schools (A. Khan et al., 2017). However, many of these concerns can be addressed by implementing various learning strategies that actively encourage students to engage in online learning content.

Student engagement in school is the quality and quantity of students' psychological state, such as cognitive, emotional, and behavioral reactions to the learning process, as well as academic and social activities in the classroom or outside the school to achieve good learning outcomes (R. Gibbs & Poskitt, 2010; Gunuc & Kuzu, 2015). Willms (2003) added that student engagement is a psychological component related to a student's sense of ownership of the school, acceptance of school values, and behavioral components related to school activities participation. Indicators of student engagement in school will be reflected in participation in school activities, high score attainment, time spent doing homework, and the quality of homework (Jimerson et al., 2003). Meanwhile, students' inattention in school is usually manifested in the form of withdrawing or inattention to school activities, having poor abilities,

engaging in problematic behavior, and ultimately leading to an increase in students dropping out of school (Fall & Roberts, 2012).

Axelsson & Flick (2010, p. 38) defined student engagement as “how involved or interested students appear to be in their learning and how connected they are to their classes, their institutions, and each other.” As “any sustained connection a learner has towards any aspect of learning, schools or education” (Fletcher, 2011). Student engagement is “increasingly viewed as an indicator of successful classroom instruction” (Fletcher, 2011) and “an indicator of institutional excellence” (Axelsson & Flick, 2010). Some authors, such as Skinner & Belmont (1993, p. 572), have associated student engagement with motivation, saying that “students who are engaged show sustained behavioral involvement in learning activities accompanied by a positive emotional tone.” Further said that “These students tend to select challenging tasks, show initiative in learning, demonstrate intense effort and concentration, and express positive emotions, including enthusiasm, optimism, curiosity, and interest during learning”. According to the Glossary of Education Reform (2016), a comprehensive online resource that describes school-improvement terms, concepts, and educational strategies, student engagement “refers to the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education.”

Barkley & Major (2020) used the words “passion” and “excitement” to describe student engagement. They defined student engagement as a “process and a product that is experienced on a continuum and results from the synergistic interaction between motivation and active learning.” Gibbs (2014) provocatively labels student engagement as the latest higher education buzzword. Although this definition refers to many things, Gibbs still provides much support for its impact on student learning and institutional effectiveness.

Furthermore, Reschly & Christenson (2006); Christenson and Furlong (2008) in Hu & Li, (2017), students' engagement in online learning appears in four dimensions, namely (1) academic engagement, (2) behavioral engagement, (3) cognitive engagement, and (4) affective engagement or psychological engagement. Based on the work of historian Astin (1999) and others, the National Survey of Student Engagement (NSSE) created by Kuh (2009) and his colleagues explains that engagement refers to a student's quality of effort and involvement in their learning and is an indicator of both student and institutional performance (Kuh, 2009).

Some previous studies have shown a positive correlation between student engagement and academic achievement. Among other things, academic and behavioral engagement was positively associated with achievement; behavioral and academic engagement and achievement were associated with a decreased likelihood of dropping out of high school (Fall & Roberts, 2012). Course design and variable perception of students have more influence on student engagement; students' perception of the importance of activities has a strong positive impact on cognitive and emotional engagement (Manwaring et al., 2017; Joksimović et al., 2015; Tomas et al., 2015). Teaching tools and techniques used in traditional face-to-face classrooms cannot be directly applied to online classes. These tools and techniques must be modified to accommodate the lack of physical closeness experienced in online courses (A. Khan et al., 2017). Kennedy (2020) offers three perspectives on what ‘engagement’ means in online learning environments and advises educators on promoting student engagement in online learning. The three perspectives are (1) an interaction perspective on student engagement in online learning; (2) an interactivity perspective on student engagement in online learning; and (3) a learning design perspective on student engagement.

The question is, who is responsible for creating and maintaining a high level of student engagement? Educational institutions have been consigned to an increasing measure of

responsibility for this. Institutions and education must use effective educational practices, responding to students' investment in both time and energy in full educational activities (Kuh, 2009).

In this expanded definition, engagement is not just a measure of how students engage in their learning; it is also an indication of how to engage institutions for their students. In essence, learners and institutions each have a responsibility to the quality of student learning. Students need to put forward the efforts necessary to develop their knowledge and skills, and institutions need to provide an appropriate environment to facilitate student learning (Axelson & Flick, 2010).

Regardless that the Covid-19 pandemic will end soon or perhaps even vice versa, it is not easy to predict. However, e-Learning is becoming a new normal for schools and teachers (see Dunwill, 2016). Although schools and teachers do not evenly have the skills to manage online-based learning, it is believed that continuing post-Covid-19 pandemic schools, teachers, students, and parents have adapted to online-based learning. The remaining work is how schools and teachers ensure that students' engagement in online learning can match even beyond learners' level of engagement and activeness in conventional learning.

Finally, this article discusses teachers' efforts or strategies to maintain and even increase student engagement in online learning post-Covid-19 Pandemic.

2. Method

This article is a conceptual framework based on a theoretical review. To develop concepts relevant to the topic, the author conducts a review of literature obtained from books and scientific journals, research reports, scientific essays, thesis and dissertations, encyclopedias, and other print and electronic sources. Furthermore, to obtain precise characteristics of the discourse in the form of theory and concepts studied, the author uses the method of content analysis, which is a research technique to create inferences that can be replicated and valid data by paying attention to the context (Krippendorff, 2004; Kriyantono, 2012).

3. Result and Discussion

At first, this paper departs from three assumptions, which are: (1) the school has adopted a learning management system or online teaching and learning in the whole series of educational and learning processes, (2) the school has also had a reasonably experienced information and technology staff, and (3) the teachers have had the latest evaluation results of previous instructional programs. The following efforts or strategies can be an input or provision for teachers to maintain and increase student involvement in online teaching and learning.

First, make a plan. Making a plan is setting goals to be achieved, deciding what to do and how to achieve those goals. This planning can be done by strategically discussing strategies to motivate and engage students in deeper learning and explore specific techniques that promote academic ownership through synchronous and asynchronous opportunities. In designing the design of learning (for this purpose), teachers can do it in stages as shown in figure 1 below.

Figure 1. The planning stage in building engagement in deeper learning

This task is similar to how businesses produce goods with the paradigm of suppliers and customers. A company (supplier) has just released a new product, and no one is consuming it. What is wrong is that we fail to engage customers after learning that the new product turned out not to sell. Companies need to find their approach by checking customer needs, checking the data available in the market, and determining plans to make changes to engage customers and sell products. With this data, companies develop new plans to sell products and test whether their new engagement strategy will succeed. Similarly, in the context of education, teachers need to reveal learners' characteristics (Heitzmann et al., 2019; Herppich et al., 2018) and set out an action plan to engage them. Whether it is done independently and or on other occasions, consult with other teachers. The program needs to be tested in action, and at a time when the plan may fail, teachers need to reflect and adjust the approach used. It is essential to be open to feedback and reflection and equip yourself with many engagement strategies if anything fails.

Second, ensure students have the technical equipment. From the beginning, teachers have had to make sure: do students already have the technology they need to participate in virtual learning fully? Does each student have access to a device that can perform the functions necessary for online learning, and does it already come with essential software to run class sessions?

There is no denying that there are also many teachers who are not familiar with learning technology. Here teachers do not need to have all the technological answers, but teachers should be a resource. The institution's information and technology department where teachers work needs to be involved and direct students to any assistance they may need. Ensuring that every student has full access to the resources they need and overcoming barriers at home to participate online effectively is crucial that no one feels ostracized or abandoned.

The next task is to combine the following strategies to maintain and increase students' ownership and engagement in online learning.

3.1 Build a community

Face-to-face learning benefits from interactions with peers, teachers, and or perhaps teaching assistants to provide a sense of togetherness and motivate students to learn. (Overstreet, 2020). Online learning simulates these interactions through discussion forums. Establishing a community helps a group of learners bond and work well together. Community is significant in online courses, given the potential for students to (a) students do not feel isolated and alone; (b) encourage students to take advantage of discussion-based features; (c) use business hours to engage students in a more informal atmosphere; and (d) Encourage students to stay in touch with each other (Groccia, 2018).

3.2 Engagement through grit and growth mindset

The first way teachers can influence grit and encourage ownership is to utilize students' motivation. It can occur in various forms and interactions with students. They are usually directing teachers to find out what really motivates students and then build on that strength. It might mean using characters from students' favorite movies and example sentences or giving alternative scoring options to students who would instead express themselves artistically than write. Consider this strategy in action from a session or a synchronous message to post in the class subject matter. This strategy is a terrific way to connect with students; anytime teachers can include examples of real-life apps from the content teachers learn, the easier it is for students to take ownership of their learning.

Furthermore, creating an environment that recognizes challenging work's value explains to students that learning something new can be difficult, and the struggle involved is a good

thing. Many students are used to something easy; they need to see the teacher exemplify how they should interact when students get something wrong or when they must go back to the drawing board to get an answer. It makes teachers need to look for ways to challenge students to move beyond their comfort zone. Please encourage students to work within their competence. This opportunity shows students that perseverance is essential and a valuable part of the learning process; this grip-building technique is necessary when providing feedback to students.

3.3 Synchronous & Asynchronous Instructional

Online teachers need to be aware of the differences in synchronous and asynchronous learning to incorporate evidence-based best practices in the classroom, with both, of course, integrated into mixed classes. The ability to combine these two learning modes often improves the online learning experience.

Synchronous learning happens in real-time, allowing students and faculty to interact through web-based technology. Khan (2007) defines synchronous e-learning as the “Interact of participants with an instructor via the Web in real-time”. Based on this understanding, we define synchronous learning as an interaction between teacher and student where communication occurs in real-time, including live session phone calls with students responding promptly and face-to-face contact. A study conducted by Claman (2015) found that student engagement was significantly higher in synchronous learning platforms when compared to asynchronous ones. Synchronous learning involves hands-on discussions to observe reactions and behaviors, engage students with peers and instructors, and provide a social presence in symbolic classes (Zoumenou et al., 2015).

In contrast, asynchronous communication is delayed in time or not in a natural setting (Zoumenou et al., 2015). Such learning provides an opportunity for critical thinking, as learners can reflect and communicate when time allows instead of the time set for the class. This opportunity for critical thinking will enable students to remember, which involves higher review, including analysis, synthesis, application of knowledge, and judgment (Chen et al., 2010).

Nevertheless, a study conducted by Huang et al. (2015) shows that asynchronous communication is often much more effective than synchronous design in motivating and engaging students. Additional research by Levin et al. (2006) noted that students involved in synchronous online education showed higher levels of critical thinking when compared to simply engaging in asynchronous learning. Therefore, a combination of synchronous and asynchronous communication in distance learning is generally recommended (Giesbers et al., 2014; Zoumenou et al., 2015). Watts (2016) completed a library review showing that research supports synchronous and asynchronous learning while considering students' needs, programs, and available technical support.

One suitable method to spend synchronous session time is to use the webcam. Briefly, bandwidth can prevent the use of webcams all the time, but there is great power in allowing students to see teachers and meet each other. Allowing free chat for the first 5 minutes or the last 5 minutes can encourage peer connections that students want and, as a bonus, increase live session attendance. It can also give teachers more insight into the activities and hobbies students follow. Be sure to deliberately explain how to use the various features in a sync session. For example, students who are not sure how to comment on pods (a small group of students) are more likely to remain isolated.

Phone calls are the best way to deepen relationships with students leading to engagement. Many teachers start their phone calls by discussing their students' activities outside of school, asking about student sports game, their latest art projects, or favorite pets. When

students feel that their teacher is supportive and caring, it affects their positive attachment. The teacher smiles when chatting with students, influences the teacher's voice, and helps create a friendly atmosphere for students; leaving messages for students can even be a powerful way to connect, especially when the message begins with a recent event activity important to that student.

Other strategies include deliberately using the student's name. This small but vital step is a strategy that the communicator uses superbly in any situation. To create additional relationships, save a spreadsheet that includes students who like and dislike upcoming events and others. It will help remember to ask them about these things or have examples of these things when talking about content.

Teachers also need to record a video of themselves then post it to the family to see the welcome video, but it is essential to include other videos such as how to find resources or how to solve complex content (i.e., math) problems as well as sharing how to use the content in the courses teachers have in everyday life. The teacher must determine why the student is not interested or involved in the learning process, what is missing. Is it possible that the content is less attractive to students? Teachers need to examine all factors but hopefully cause some changes to engage students in online learning. Teaching often includes returning to a drawing board that reflects students' needs and then provides new strategies to try. There are never too many engagement strategies that should be on hand to move on to when students are not involved in their learning.

3.4 10:2 Method, 5-7 to Think and 3-2-1 to Summarize

The Ten-Two method is a teaching method that breaks up every 10 minutes of instruction with 2 minutes of small group discussion. This method effectively introduces complex new concepts in that it allows space for students to identify gaps in understanding or questions they have in small peer groups. It also allows students who have an easier time grasping the problem to share their understanding of the given problem with peers in new ways that may be more effective and relevant. The teachers can do it by asking them to write what they have learned, asking questions they may have, or discussing content with fellow students.

Allows students 5 to 7 seconds to think when asking a question in synchronous interactions at the end of the time. Having a variety of ways to randomly select a student to answer the question, consider utilizing poles within the session to give students a chance to answer the question that does not make the wait time feel awkward. Consider how to incorporate this strategy into a call with a student without making a silence uncomfortable. Provide frequent and effective feedback in a virtual world where students and teachers do not see each other every day. It is essential to provide regular and effective feedback; a simple message to a student thanking them for submitting their work or acknowledging their posts on the discussion board goes a long way. Even engaging students in conversations about their work by asking questions engage them in reflection and high-level thinking. Periodically pause mid-sentence when teaching and requiring students to fill in the blanks. It is a terrific way to check if students understand the concept and the vocabulary and keep them on their toes to engage in the learning process. At the end of a lesson, have students use the 3-2-1 method of summarizing by having students record: three things they learned, two exciting things, and one question that they have about what was taught.

3.5 Cooperative Learning

“The best answer to the question, ‘What is the most effective method of teaching?’, is that it depends on the goal, the student, the content, and the teacher. But the next best answer is,

‘Students teaching other students.’ There is a wealth of evidence that peer teaching is extremely effective for a wide range of goals, content, and students of different levels and personalities” (Svinivki & McKeachie, 2011).

Cooperative learning is also known as small group learning, is an instructional strategy in which small groups of students work together in joint assignments and are an excellent opportunity to engage students. Cooperative learning comprises “instructional methods in which teachers organize students into small groups, which then work together to help one another learn academic content” (Slavin, 2011, p. 344). Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other’s learning. It may be contrasted with competitive and individualistic learning. However, results concluded that cooperative learning activities positively affected students’ academic achievement enrolled in education (Gull & Shehzad, 2015).

In cooperative learning, the task can be as simple as solving a multi-step math problem together or as complex as developing a design for a new kind of school; in some cases, each group member is individually accountable for part of the task; in other cases, group members work together without formal rule assignment. Through cooperative learning, students are exposed to many necessary skills and are directly engaged in the learning process in the following ways. Positive independence where students feel responsible for their own and the group’s effort group interaction where students encourage and support one another the environment encourages discussion. Individual and group accountability where each student is responsible for doing their part, the group is accountable for the meeting. It is goal group behaviors for group members interact instruction in the interpersonal, social, and collaborative skills needed to work with others and group processing or group members analyze their own and the group’s ability to work together.

In addition to cooperative learning, flipped learning methods and approaches offer a way to engage students creatively in a virtual learning environment. In this method, the teacher gives students assignments to read or complete before attending a synchronous meeting. Direct instruction occurs before the group meeting; the group learning space is used for dynamic interactive learning where the teacher guides students as they apply concepts and engage creatively in the subject matter. It allows for students to explore meaningful engagement in the learning process and collaborate with their peers.

Finally, the jigsaw method is also one of the strategies to increase student participation in online learning. Jigsaw learning, one kind of cooperative learning method developed by (Aronson et al., 1978), helps students break learning materials into manageable learning pieces and then teach others the piece they have mastered, consequently combining them into one whole. (Tran & Lewis, 2012).

This learning method allows each student from the homegroup to specialize or focus on one aspect of the topic and another group to learn other aspects. Students meet with members of other groups who are given the same elements as an expert group, and after mastering the material, return to the homegroup and teach the material to their group members.

3.6 Gallery Walk & Graffiti Walls

Teachers can use gallery walk as a strategy to allow students to share their work with colleagues and to examine learning materials in the classroom (Chin et al., 2015). Gallery walk is one form of active learning as defined by Allen & Tanner (2005): “seeking new information, organizing it in a way that is meaningful, and having the chance to explain it to others”. This form of teaching and learning emphasizes interactions between peers and shifts the focus on teaching to learning by directing students to run the lesson.

Students explore multiple resources at their pace; gallery walk can help students share their work with peers, check various resources at their own pace, or respond to resource sets. Students can share their ideas through a variety of chats displayed in synchronous sessions.

In addition to gallery walk, graffiti walls can be empowered in synchronous sessions to increase students' motivation and enthusiasm for learning and improve students' critical thinking skills and self-actualization. While this is not easy, it is challenging; "one of the significant challenges of implementing the flipped classroom for teaching is facilitating students' active engagement in the learning process" (O'Flaherty & Phillips, 2015). Related to this, Goh & Sandars (2016) responded to this challenge by "combining an embedded online graffiti wall with a blog for use before, during, and after the face-to-face session." According to him, "blogs hosted on Blogger by Google can present pre-class reading material by embedding documents or sharing links to the recommended literature and provide students instructions on what to review and how much to review the reading material" (Goh & Sandars, 2016). "Lecture slides can also be presented by posting separate JPEG images or embedding a SlideShare presentation with narration" (Goh, 2016).

Graffiti walls provide an open canvas on which participants can freely offer their written or visual comments about an environment or system directly in the context of use. Students exchange thoughts or ideas in this strategy, record them in a synchronous space, and some chats students can use to share ideas. It is a creative way to gather most of the students participating in this strategy; it allows teachers to quickly assess and enable students to ask questions or clarify understanding.

3.7 Craving attention

Order novelty humor and surprise and lessons are some favorite strategies that teachers use to help engage students. Laughter and humor can be essential skills to help in building relationships and relaxation in life. It will reduce stress and frustration while providing opportunities for others to see life from the other side (Lase, 2019). These elements create a personalized atmosphere that encourages students to find creative ways to connect to a concept. Anything from a demonstration to a song to a game show quiz can create this environment.

Build curiosity for learning with teasers that get students interested in a lesson, look for ways to make lessons relevant for students' lives ask questions to engage students in learning and inquiry. Remember that variety is the spice of attention; a mix of learning activities helps keep students engaged. Evoke emotions just as emotions can be distracting; they can also be used to enhance attention.

3.8 Reflection

At the end of the session, a key piece of supporting student ownership through engagement is encouraging students to reflect (Thorpe, 2000). Set aside time during synchronous sessions to invite discussions or share their metacognition. It is a great way to reflect on their problem-solving processes and if those processes are adequate or not.

Students can benefit from here; the teacher thinks aloud and explains the process for making meaning. It supports students in building their internal voice, which is necessary for deep learning. Consider posting sentence stems on the message board that encourages students to reflect. The ultimate goal in teaching students to reflect is to familiarize them to reflect on their actions and build a beating of the experience which means a greater sense of ownership of their learning.

4. Conclusion

The description above is a variety of student engagement strategies that researchers generally agree that there are three types of student engagement: behavioral, emotional, and cognitive. Behavioral engagement refers to student contact and behavior during assignments, drawing the idea of participation. Emotional engagement includes students' attitudes, interests, and values and has positive and negative reactions to teachers, classmates, academics, and schools. Cognitive engagement is deeper by incorporating self-regulated motivational and learning objectives, including investment ideas and combining cruelty and a willingness to exert the effort necessary to understand complex concepts and master difficult skills. Teachers need to reflect on the various strategies above and how each falls into this area of engagement; there are endless strategies to engage students, some that teachers can implement quickly and through relative ease, and others that require wiser planning. Teachers need to think of one strategy that teachers can implement immediately to engage students in their learning.

However, various strategies to increase student ownership and involvement in online learning above will only be effective if network infrastructure is available evenly to remote areas and students have supporting technical equipment equipped with various appropriate features or software. For developing countries such as Indonesia, this is a significant obstacle and challenge to make learning successful with digital platforms. Therefore, in order for the education process to be held post-emergency education during the Covid-19 pandemic and in the era of technological disruption, all parties, especially the central and local governments, need hard work and a strong commitment to develop technology-based education infrastructure that reaches all students. Of course, the extra work will appear on policies that favor the affordability of all students in digital platform education (online learning).

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