Review on Students Engagement: The Factor Influencing Online Learning

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ABSTRACT

The paper presents the literature review on student's engagement as the factor influencing the online learning. The paper introduces the current situation of the online learning during the pandemic of COVID-19. The challenges of online pedagogy during the pandemic which student's engagement is one of the important factors influencing the online learning. Student's engagement has been one of the assessments to evaluate and improve the teaching and leaching especially in university level. This paper also discusses on the importance of student's engagement for the online pedagogy and how to increase the student's engagement in online class.

Keywords: student's engagement, online learning, COVID-19, factors influencing, online pedagogy, the quality assurance.

INTRODUCTION

Since November 2019, the new disease has been discovered named COVID-19 (Ciotti et. at, 2020). According to that COVID-19 became an outbreak and spreading globally. In education system, COVID-19 became a huge effect in the education system worldwide. As the regulation to prevent the pandemic, students are not allowed to have physical class as usual in school or university. The learning system has been changed to 'Online system' (Pokhrel and Chhetri, 2021). Both educators and students have to change their teaching and learning system to fully online system in order to continue the education for students (Daniel, 2020).

The online platform became the major system to connect students to the classroom. Schools and Universities use Google Classroom, Zoom, Microsoft Team, or other online learning platform to communicate with students. As a result, the effectiveness of the online learning has been a major concern for educators and society in general (Pham et. al, 2021). Moreover, there are an increasing number of the research studied on the effectiveness of online learning and online learning outcome during the COVID-19 pandemic. This type of learning created the difficulty for both students and educators. Students became isolated and unconcentrated due to the online learning (Szopinski and Bachnik, 2022).

This research is a literature review on highlighting the factors influencing online learning especially on students' engagement from the previous literatures and explore how student engagement affected student performance during the pandemic situation.

The Challenges

With the changing of pedagogy, the online teaching and learning or even hybrid method has been adapted during the pandemic. Because of the pandemic, the COVID-19 took online pedagogy to another level, from the optional methodology to the main methodology of learning Szopinski and Bachnik, 2022).

Due to that, there are several logistical challenges. Not only teaching and learning methodology but also the students' evaluation on how districts can legislate unbiased and evenhanded grading policies based on these recommendations (Babatunde Adedoyin and Soykan, 2020). The previous studies showed the challenges of online learning as;

1) *The quality assurance and standards*: Student assessments are carried out online, with a lot of trial and error, uncertainty and confusion among the teachers, students and parents (Pokhrel and Chhetri, 2021). Osterlind (2002), there exists various writing on test and estimation hypothesis and investigation with small subtle elements on planning, advancement and test things composing by educates. In online learning, appraisals are often carried online whereby educates are constrained to intermediary supervision of learners making it impossible to direct and control cheating (Arkorful & Abaidoo,2015). There are a few understudies testing formats that are pertinent with e-learning and agreeing to Osterlind (2002), such ICT-enhanced testing groups incorporate constructed-response, performance-based designs, sentence-completion or short-answer, coordinating, true-false and cloze-procedure.

2) *The accessibility toward equipment and technology:* The online learning is totally depending on technological devices and especially on the internet. John R. Yamamoto-Wilson a resigned professor from Sophia College, on the impacts of Covid-19 and online learning on educates and teaching expressed those understudies with obsolete innovative gadgets might find it difficult to meet up with some technical prerequisites of online learning, citing a case of an understudy who needed to require mid-semester e-quiz by utilizing Responds. This specific understudy seems not download the browser after several endeavors and it was afterward found that she was using an obsolete gadget that's not compatible with the browser. This analyst moreover cited understudies with openness issues that may find it troublesome to take after enlightening posted on the course declaration section of programs and atypical illustration of that's when the teachers posted on the course declaration page that there won't be lesson on a specific date, one of the understudies still sent mail inquiring on the off chance that course will hold on that date (Fishbane and Tomer, 2020).

3) *The self-arrangement and time management:* Due to the fact that the online learning even, there is a fixed schedule with the teaching time but there is no doubt that students tend to spend their time online without any time limit or schedule. Hybrid learning increments adaptability for learners to consider at their possess pace whereas advertising openings to advance dynamic learning within the classroom. Due to the overwhelming online component, mixed learning requires solid aptitudes for self-regulated learning (SRL) considering that learners have to be lock in with online assets and to think about autonomously (Uzir et. al, 2020).

4) *Student's engagement (Kearns, 2012):* In online learning situations, student engagement is a relatively unused issue for directions creators and requires more experimental investigate to development the knowledgebase. In expansion, since inquire about on understudy engagement is yielding progressively complex questions and issues, the need for investigate investigating

engagement within the setting of online learning is more noteworthy than ever. Various partners are involved in understudy engagement issues; we select to concentrate on teaches, directions creators and instructional plan analysts through the E-Learning Engagement Design (ELED) framework. For e-learning plan and improvement to be successful, online educates require way better approaches to increasing understudy engagement. The E-Learning Engagement Design system endeavors to show such an approach by emphasizing interaction, collaboration, help and feedback methodologies with a particular center on planning online learning situations or settings (Czerkawski and Lyman, 2016).

Students Engagement

Student engagement has been defined as "participation in educationally effective practices, both inside and outside the classroom, which leads to a range of measurable outcomes" (Kuh et al., 2007), and as "the extent to which students are engaging in activities that higher education research has shown to be linked with high-quality learning outcomes" (Krause and Coates, 2008) Similarly, Hu and Kuh (2001) define engagement as "the quality of effort students themselves devote to educationally purposeful activities that contribute directly to desired outcomes". Also, there are several affective factors related to student engagement which include attitude, personality, motivation, effort, and self-confidence (Mandernach et al., 2011).

There is important to assess the students' satisfaction where student's satisfaction and motivation resulted from the student's interaction during the sessions and educational environment (Stukalina, 2012). As Students' engagement has been one of the issues to be concern about since the first classroom was set up even before the online class room (Everett, 2014). The scholars found that students' engagement helped improving the student's achievement (Finn & Zimmer, 2013). Student's engagement is concerned with the interaction between the time, exertion and other pertinent assets contributed by both understudies and their educate expecting to enhance the understudy involvement and improve the learning results and advancement of understudies and the execution, and notoriety of the institution (Trowler, 2010).

Whereas, there are four main types of engagement as; 1) Intense 2) Independent 3) Collaborative and 4) Passive (Figure 1).

Intense:
"Students reporting an intense form of engagement are highly involved with their university study … They tend to see teaching staff as approachable, and to see their learning environment as responsive, supportive and challenging." (Coates, 2007)

Independent:
"An independent style of engagement is characterized by a more academically and less socially orientated approach to study … Students reporting an independent style of study see themselves as participants in a supportive learning community. They see staff as being approachable, as responsive to student needs, and as encouraging and legitimating student reflection, and feedback. These students tend to be less likely, however, to work collaboratively with other students within or beyond class, or to be involved in enriching events and activities around campus." (Coates, 2007)
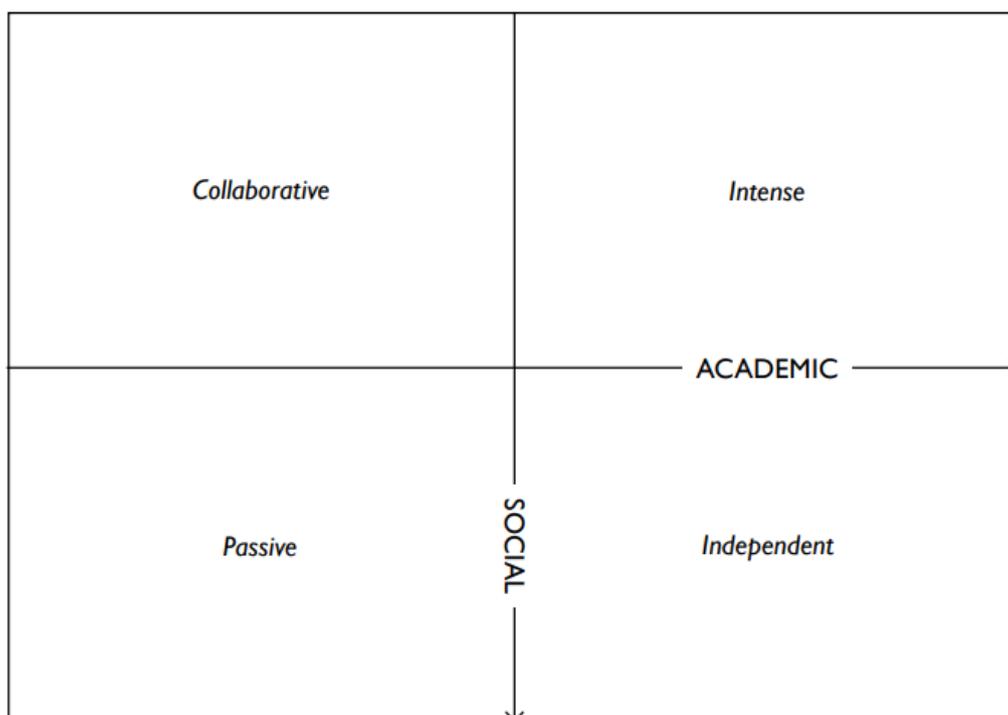
Figure 1: Student engagement styles (Coates, 2007)

Collaborative:
"Students reporting a collaborative style of engagement tend to favor the social aspects of university life and work, as opposed to the more purely cognitive or individualistic forms of interaction ... High levels of general collaborative engagement reflect students feeling validated within their university communities, particularly by participating in broad beyond-class talent development activities and interacting with staff and other students." (Coates, 2007)

Passive:
"It is likely that students whose response styles indicate passive styles of engagement rarely participate in the only or general activities and conditions linked to productive learning." (Coates, 2007)

However, with the online pedagogy, students' engagement has been an impact factor influencing the assessment. In online learning, there appears to be two major research clusters where one bargains with the advancement of good designs whereas the other bargains with the appraisal of students 'satisfaction with a web course because it relates to a conventional face-to-face course (Czerkawski and Lyman, 2016). The E-Learning Engagement Design (ELED) system accept that, at different stages, multiple sources of information may be utilized based on the instructor's or instructional designer's needs and the necessities of the derived ID model in brief, different sub-levels of Lee and Jang's (2014) source measurement may be show. Additionally, the analysis plot for any inferred directions model(s) would depend on desires and objectives of particular creators. Finally, although the ELED system proposes a successive and iterative approach to directions plan, beginning with deter-mining directions needs and moving through an arrangement of steps to summative assessment which shapes the following iteration of guidelines plan modeling information in the form of creator, educators, and understudy input may be shared bi-directionally between prepare stages.

Modern technology is firmly woven in our personal and proficient lives and has made a world of contrast in being able to engage students with the teachers, with other students, and with the substance. Learning management frameworks have ended up increasingly more advanced and broadly utilized since their debut within the 1950s and offer a bunch of chances for understudies to connected with the content, the teachers, and their peers. The National Instruction Innovation Arrange 2010 calls for progressive changes in instruction using technologies that lock in and enable. The role that innovation plays within the classroom depends on area financing and bolster, teachers' comfort level and information, and knowing how to use innovation as an guidelines tool. Students, on the other hand, have experience with innovation that bolsters multimedia, communication, and organize get to, and fosters creativity, issue understanding, and collaboration experiences worldwide (Everett, 2014).

Students Engagement Assessment for Online learning:

Student engagement focuses on behavioral dimension and emotional dimension which lastly became the cognitive dimension (Hu and Li, 2017). The student's engagement can be evaluated in several ways. Behavioral engagement is the essential frame of engagement, is explicit and discernible, and basically incorporates student's specific behaviors in learning prepare. Cognitive engagement mainly refers to the use of learning procedures, that is, understudies grasp and control mental exertion in learning, and the utilize of different learning techniques will lead to diverse levels of thinking. Emotional engagement primarily alludes to students' emotional reaction, counting intrigued, boredom, bliss, pity and anxiety, and a few researchers get it enthusiastic engagement into sense of having a place and values (Hu and Li, 2017).
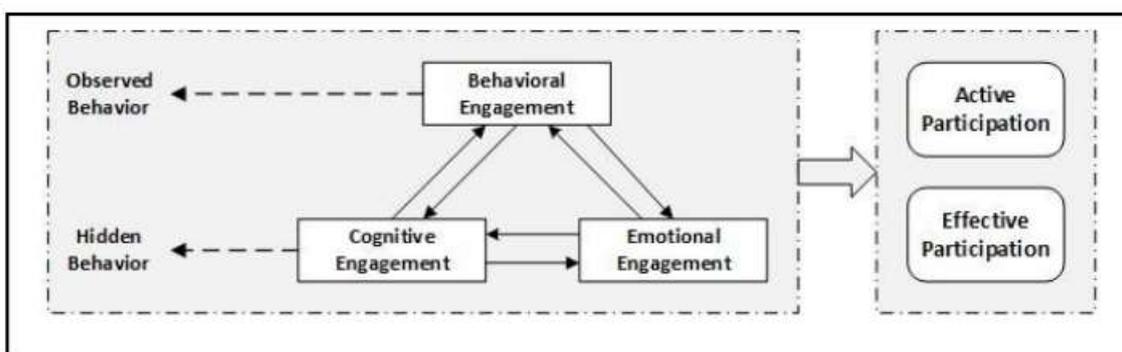

Figure 2: Structural relationship of three dimensions about student engagement (Hu and Li, 2017)

The early estimation of understudy engagement was mainly dependent on perception and student-behavior announcing, and these strategies are primarily measured whether understudies actively participate in learning, how to assess and degree student engagement is generally slack in pertinent investigate. Due to the complexity of understudy engagement, and the impact of different definitions and distinctive measures on it, its evaluation and estimation are correspondingly complicated (Hu and Li, 2017).

In the related research, quantitative methods, qualitative methods and mixed methods are used to evaluate student engagement in online learning, as shown in Table I (Hu and Li, 2017).

Table 1: Statistics of Measurement Methods (Hu and Li, 2017).

Classification	Specific Methods
Quantitative Methods	attendance rate/engagement rate/graduation rate /punctuality
	grade/academic achievement
	learning time, homework completion
	rating scale of work completed
	number of behavioral event report
	data gained with the help of devices
	analysis of log data
Qualitative Methods	student surveys
	teacher surveys
	self-report
	observed basis
Mixed Method	combining qualitative methods and quantitative methods

Investigating Student's Engagement in Online Learning:

The assortment of results about in online cognitive engagement and many issues such as understudies being at the lower degree of cognitive engagement have raised the need of assessing cognitive engagement, especially in an online learning setting to a more noteworthy extent (Shukora et. at, 2013). The National Survey of Student Engagement (NSSE) identified five academic components related to learning engagement: (1) level of academic challenge, (2) a supportive campus environment, (3) enriching educational experiences, (4) student–faculty interaction, and (5) active and collaborative learning (NSSE, 2005)

DISCUSSIONS AND CONCLUSIONS

Increasing Students Engagement for Online learning:

Nowadays, research on learning engagement consistently recognizes engagement as essential for student satisfaction and course completion especially during the pandemic which most educational section has automatically shift the teaching and learning methodology to almost fully online (Buelow, Barry and Rich, 2018). In order to increase the student's engagement especially for the online learning. There should be the cooperation between students and educators. As the student's engagement is considered one of the most significant factors in a student's academic success. The educators are responsible to evaluate and maintain the student's engagement in order to driven the students to the achievement. In online courses and programs, since of the virtual and frequently nonconcurrent nature of communication and other intuitive, students' discernments of engagement are indeed more critical (Buelow, Barry and Rich, 2018).

One of the interesting frameworks to increasing students' engagement is called E-Learning Engagement Design (ELED). ELED expect that, at different stages, multiple sources of information may be utilized based on the instructor's or instructional designer's needs (Czerkawski and Lyman, 2016). The framework of ELED is shown in figure 3.
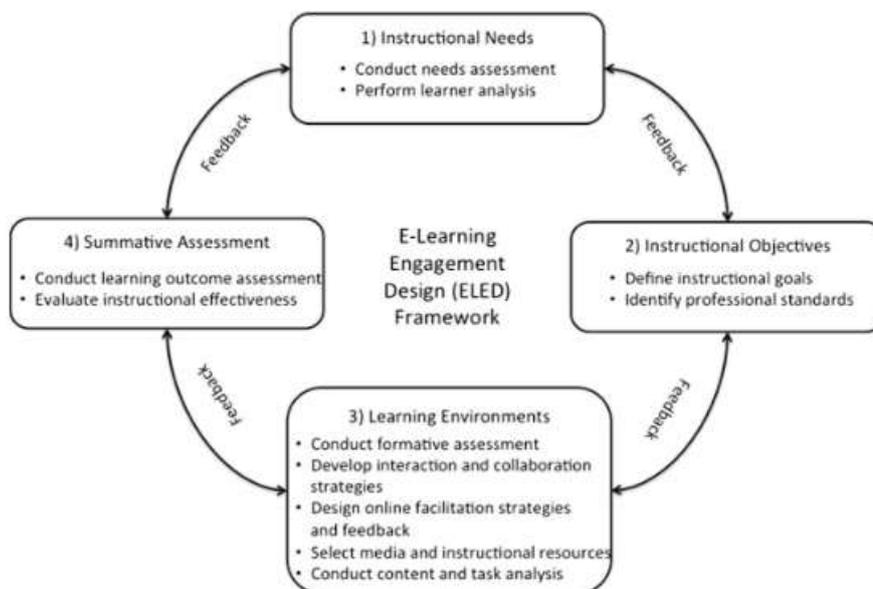

Figure 3: ELED framework (Czerkawski and Lyman, 2016)

However, as the teaching and learning pedagogy changed to mostly online. There would be more steps and procedure to increase the students' engagement due to the online environment. For example, 1) Communicate in Multiple Formats: Online instruction gives educates with multiple avenues for communicating with understudies. Course email and dialog gatherings tend to be the standard communication apparatuses, but don't ignore embedded audio and video, chat rooms or moment messaging, broadcast content informing, and domestic page announcements. Illustrative screencast recordings tend to be well gotten by understudies, and are increasingly easy and cheap to create (Dahl, 2015) 2) Provide Active Learning Opportunities: One definition of active learning is "hands-on learning," in spite of the fact that that seem likely incorporate "hands-on your mouse," which is not the proposal here. Relegate your online understudies to meet individuals working within the field, or to otherwise bring their learning out into the community where they live. Case ponders, bunch projects, or gathering and analyzing local data are fair a number of the numerous cases of dynamic learning (Dahl, 2015). 3) Make Learning Social: Social and online platform, in the event that utilized viably, can help construct a sense of classroom community among the understudies and between understudies and instructor (Dahl, 2015). 4) Provide Timely and Useful Feedback: Criticism of students around their execution is amazingly vital within the exertion to keep understudies locked in within the learning journey (Dahl, 2015). 5) Add Self-Assessment Opportunities: Give openings for self-assessment, permitting understudies to require more obligation for their own learning (Dahl, 2015).

FUTURE RESEARCH

Several areas for future research into student engagement in the online pedagogy could further the discussion:

1. Which online pedagogy, tools, and measurement work best for the student?

2. How can students be more engaged and collaborative with each other within the online learning? Which tools work best to create interaction happen?

3. How is online instructing and learning hoisted within the minds of its clients and pundits to recognize its esteem?

4. Modern technologies offer the guarantee of "reaching" instructors and learners. What are these innovations and how will they be utilized to engage learners? Proceeding investigate into understudy engagement and its measurements in online learning and its apparatuses and methodologies is required to encourage characterize the finest utilize of devices and procedures to include esteem to students' learning and arrangement for an ever-changing workplace.

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