EFL Undergraduate Students' Competence, Relatedness, and Autonomy in Online Learning: A Self-Determination Perspective

Dwi Bayu Saputra, Eko Saputra
Universitas Bengkulu
Bengkulu, Indonesia
Universitas Bengkulu
Bengkulu, Indonesia
Corresponding email: dwibayusaputra@unib.ac.id

Abstract

Due to the pandemic of Covid-19, numerous educational institutions have attempted to shift their pedagogical instruction from face-to-face to online teaching and learning. A plethora of studies have been published on how online learning should be provided. However, there is a paucity of research on the psychological needs that online learning provides for language learners. To bridge that gap, this descriptive study aimed to investigate the university students' perspectives on psychological needs, particularly regarding their competence, relatedness, and autonomy concerning self-determination theory. The quantitative research design study attempted to investigate students' autonomy, competence, and relatedness in online tertiary learning. Sixty people were asked to fill out a survey-based questionnaire that included questions about autonomy (5 items), competence (5 items), and relatedness (8 items). The study's findings revealed that online grammar sessions met undergraduate students' basic physiological learning needs despite the lack of physical human interaction. Among those three aspects, students' sense of relatedness had the highest mean. It meant the undergraduate students had no feeling of isolation while attending online learning. This present study suggests that teachers should consider students' interests to improve autonomy, competence, and relatedness.

Keywords: Self-determination, Autonomy, Competence, Relatedness, EFL

I INTRODUCTION

The ability to better grasp the lessons will occur when the students possess a feeling of joy, enthusiasm, and interest in the learning process. According to Davis & Bowles (2018), every student possessed one of the most valuable resources available to educators: their natural curiosity and love of learning. Feeling less pressure in the classroom would lead the students to enjoy doing tasks. Students might feel empowered to meet their own needs and built rapport with others as a replacement for feeling incapable and unable to control their outcomes (Kirk et al., 2017). However, teachers continued to uphold close supervision, monitoring, and evaluation of their students, accompanied by rewards or punishment. (Niemiec & Ryan, 2009). As a result, anxiety, boredom, and disengagement frequently replaced pupils' natural interest in studying.

The advancements in technology are expected to bring the students' inherent interest back, and it is believed to enhance the learning process when appropriately delivered. In addition, the teaching and learning process is now more flexible where teachers can use online learning if offline learning is not possible. Due to the pandemic, teachers are assumed to have learnt how to use synchronous and asynchronous programs. Asynchronous and synchronous modalities should deliver virtual teaching and learning activities. Asynchronous text-based communication technology permitted understudies to work at their speed inside an assigned period, like seven days, as they fulfill course time constraints (Lowenthal et al., 2017). Meanwhile, synchronous learning happens in real-time, where both students and teachers meet simultaneously, even though no physical human interaction occurs. Both appear to impact the teaching and learning process when used together significantly.

Moving from a traditional face-to-face learning environment to a cyberspace learning environment has prompted both academics and practitioners to explore this abrupt shift, spanning a range of educational levels, including tertiary level (e.g., Salas-Pilco et al., 2022; Brown et al., 2022; Punjani & Mahadevan, 2022; Yeung & Yau, 2022; Aroonsrimarakot, 2022) and secondary level (e.g., Khatoony & Nezhadmehr, 2020; Önalan & Kurt, 2020; Walters et al., 2022; Saputra et al. 2022). Moreover, this quick shift in educational areas is also received significant attention not only across different educational levels but also across subject domains such as Mathematics (e.g., Hwang et al., 2021; Mailizar et al., 2020), Science (e.g., Asbell-Clarke & Rowe, 2019) and Language teaching (e.g., Saputra et al. 2022). Each study has shown various empirical data that practitioners can use as insightful sources to carry out online teaching effectively.

The study, as mentioned earlier, has provided teachers with insightful ideas for increasing student learning outcomes when learning is done remotely. However, more is needed to know about one of the predominant aspects of learning, motivation, particularly in the area of self-determination. This involves students' autonomy, competence, and relatedness, and all are considered vital qualities to be fulfilled. Learning will run smoothly when these needs are met, and students' outcomes will enhance. According to Edward Deci and Richard Ryan's self-determination theory (SDT), autonomy, competence, and relatedness are basic psychological needs that can lead to intrinsic motivation, well-being, and other beneficial results (Davis & Bowles, 2018). When students' three demands, as mentioned above, are better supported and met, they are more motivated and engaged in learning activities (Ryan & Deci, 2020).

The majority of studies on students' perceived self-determination were conducted in traditional face-to-face learning settings (e.g., Davis & Bowles, 2018; Dincer et al., 2019; McEown & Oga-Baldwin, 2019. In a remote teaching context, few studies have been conducted in a blended learning environment, especially in the ELT context (e.g., Abeysekera & Dawson, 2015; Zainuddin & Perera, 2019 and Chiu, 2021) where They suggest that if the flipped or hybrid classroom fosters a sense of competence, autonomy, and relatedness, it can boost student motivation. To date, far too little attention has been paid to investigating how online learning facilitates students' basic needs called self-determination (e.g., Alamri et al., 2020; Chiu, 2021a). As a result of this scarcity, researchers feel compelled to study more about these three dimensions of self-determination in English as a Foreign Language (EFL) students pursuing online learning.

According to self-determination theory, students are motivated to grow and change by fulfilling three innate psychological needs: the need for competence, autonomy, and relatedness. Autonomy refers to a feeling of initiative and authority in one's actions. It is reinforced by feelings of interest and worth, whereas it is weakened by experiences of being externally controlled through positive and negative reinforcement. Competence is defined as a sense of mastery or the belief that one can achieve and progress. Competence is best satisfied in well-structured workplaces that provide optimal challenges, positive feedback, and growth chances. Finally, relatedness is concerned with a sense of belonging and kinship. It was encouraged by the expression of respect and concern. (Ryan & Deci, 2020).

Educators could make significant learning decisions that are robust to advancing competence (Garn & Jolly, 2013). Students might perceive a sense of competence when they feel that all the hard work has paid off and they have achieved the goal they have set for

themselves. Autonomy refers to the student's ability to self-regulating in their actions. In addition, Reeve (2002) said that Students' autonomy could be aided by learning situations that offer choices to encourage learning interests, but learning that the teacher completely might undermine students' perceived autonomy. Davis & Bowles (2018) asserted that students could work independently when they feel free and have the opportunity to choose how and when they will carry out their activities. Autonomy is also defined as the ability of students to learn on their own such as by looking for material to be studied, working on problems on their own, and learning new topics without being prompted (Abeysekera & Dawson, 2015). Relatedness referred to being interacting with, being connected to, and caring for others or activities (Chiu, 2021b). It is connected to social networking, allowing in-class or after-hours social interaction with peers and the instructor. When students develop positive interactions with their classmates and teachers, they feel more connected. Ryan & Deci (2020) stated that the primary focus of SDT's analysis of educational settings is on how well they meet or fail to meet these basic needs.

Alamri et al. (2020) have conducted a qualitative study investigating university students' perceptions of their physiological demands and intrinsic motivation in two courses: one-size-fits-all and tailored. This study revealed that students' perceived autonomy and competence were fulfilled in online learning courses using personalized learning principles and led to positive online learning outcomes. Moreover, Chiu (2021) has done a sequential explanatory mixed methods design on students' engagement in a blended learning environment based on the self-determination theory framework. This study presented digital support designs to meet students' autonomy, competence, and relatedness evaluated their efficacy, and looked at how existing forms of digital help and instructor support influenced student engagement. The finding has shown that teachers who could satisfy the students' three needs were likelier to foster student learning in blended environments.

Zainuddin & Perera (2019) have researched the contrasts between a flipped classroom and a non-flipped class educational model in light of the (SDT). Sixty-one undergraduate students participated in this experimental study. It revealed that students' scores in the experimental group that used flipped learning were higher than those in the conventional class, which meant that the participants' perceived autonomy, competence, and relatedness were higher than in control group students. Chiu (2021a) used pre- and post-questionnaires filled by 1201 Grade 8 and 9 students within six weeks of participating in online learning to study how the three perceived psychological requirements in SDT affected student participation in online learning during the COVID-19 pandemic. The study discovered that digital support strategies met students' requirements better, that all of the demands were predictors of engagement, and that relatedness support was critical.

To the best of our knowledge, there is still scarce attention to research focusing on investigating how online learning can facilitate students' psychological needs, especially in the Indonesian context. Therefore, this study was designed to investigate students' perceived self-determination: autonomy, competence, and relatedness in their grammar class, using an online learning model at a university based in Indonesia. This investigation on the process of actualizing online learning might inform how students' autonomy, competence, and relatedness are fulfilled and offer a holistic portrait for a better framework of its needs analysis.

Considering the settings mentioned above, this study is about to address the following question
• What is Indonesian students' autonomy, competency, and relatedness in terms of self-determination in online learning situations?

II METHOD

Research Design and Participants

This study used a quantitative research design in which the researchers performed a survey to investigate how individuals in an online learning environment perceive self-determination in these three areas: autonomy, competence, and relatedness. The students in this study were taking the fully online mode. The participants are from two fields at a private institution in Bengkulu, Indonesia, concentrating on engineering and geography education. To select a representative sample of 60 students, convenient sampling was used (35 male, 25 female). The responders were required to take English classes primarily focused on basic grammar.

Table 1. Demographic Background of Participants

Demographic Background		Number of Participants	Percentage
Gender	Male	35	58%
	Female	25	42%
Major of Studies	Engineering	40	67%
	Geography	20	33%

Data Collection Instruments

This present study used a survey-based questionnaire to investigate the students' autonomy, competence, and relatedness to implementing online learning. Data was gathered via an online questionnaire. One of the most important reasons for utilizing an online questionnaire was that it could be administered and viewed by respondents using a variety of devices.

The questionnaire was adapted from Wong (2019), and it has 20 items: autonomy (6 items), competence (6 items), and relatedness (8 items). The closed-items questionnaire is graded on a 5-point Likert scale, with one indicating strongly disagree and five indicating strongly agree. The questionnaire is then divided into two portions. The first section gathered demographic data on the students. The second elicited data on their autonomy, competence, and relatedness. The researchers used Google Forms as a means of the questionnaire, which was distributed to the participants through WhatsApp groups. The participants were told that all the information was only for research purposes and that their identities would be kept confidential.

III RESULT

This study investigated undergraduate students' perceptions of self-determination in three aspects: autonomy, competence, and relatedness, in fully online classes mode. The researchers used Alhuwaydi (2021) model of explaining means to interpret the levels of means which was summarized in Table 2.

Table 2. Score category breakdown adopted from Alhuwaydi, (2021)

Means	Related level
1.0-1.80	Very low
1.81-2.60	Low
2.61-3.40	Moderate
3.41-4.20	High
4.21-5.0	Very high

Descriptive statistics were calculated to show the means and standard deviations of the survey participants' responses. Data on participants' autonomy, competence, and relatedness will be clearly presented. Table 3 shows that overall autonomy among undergraduate students in an online learning environment was rated as moderate (M = 3.29).

Table 3. Undergraduate students' autonomy in online learning setting
Descriptive statistic

Statement	N	Mean	Standard Deviation	Level
Overall		3.29		Moderate
I do not have a lot of options in determining how my assignment is completed.	60	3.08	.809	Moderate
I feel pressured at class	60	2.07	.972	Low
I am free to express my ideas and opinions	60	3.77	.767	High
My attitude is influenced by my feeling.	60	3.22	.958	Moderate
I feel like I can pretty much be myself.	60	3.70	1.109	High
When I am at campus, I have to do what is assigned to me	60	3.88	.739	High

According to Table 3, Students stated that they could express themselves according to their ideas and opinions. This finding shows that students have high autonomy in online learning (M = 3.77, SD =.767). Meanwhile, from the data, it can be seen that the average student does not feel pressured in class. The level of this item is Low, with an average of 2.07 and a standard deviation of .972. Table 4 below showed the students' competence in online learning mode which had moderate level (M = 3.17).

Table 4. Undergraduate students' competence in online learning setting
Descriptive statistic

Statement	N	Mean	Standard Deviation	Level
Overall		3.17		Moderate
I do not feel very competent when I am assigned a task.	60	2.47	.965	Low
Teachers at campus tell me I am good at the working with my assignments.	60	3.17	.693	Moderate
I have been able to learn interesting and new skills at campus.	60	4.03	.736	High
Most days I feel a sense of accomplishment from studying.	60	3.83	.827	High
At campus I do not get much of a chance to show how capable I am.	60	2.62	.804	Moderate
When I am studying, I often do not feel very capable.	60	2.92	.962	Moderate

Table 4 revealed the opportunities for students to learn new things online (M = 4.03, SD =.737) and the sense of accomplishment from learning in an online setting (M = 3.83, SD =. 825) had the highest self-determination in terms of competence perceived by undergraduate students. Meanwhile, the undergraduate students' assertion of their incapability in doing the assigned tasks had the lowest mean (M = 2.47), which means they perceived a positive attitude towards their competencies in doing the task given. Table 5 shows that undergraduate students have a high sense of relatedness in an online learning environment (M = 3.47).

Table 5. Undergraduate students' relatedness in online learning setting
Descriptive statistic

Statement	N	Mean	Standard Deviation	Level
Overall		3.47		High
I really like the people at class.	60	4.00	.759	High
I pretty much keep to myself when I am at campus	60	2.77	.851	Moderate
I consider the people I study together to be my friends.	60	4.20	.708	High
People at campus care about me.	60	3.63	.802	High
There are not many people at campus that I am close to.	60	2.78	.940	Moderate
The people I study together do not seem to like me much.	60	2.33	.951	Low
People at campus are pretty friendly towards me.	60	3.98	.770	High
I got along with people in campus	60	4.10	.730	High

The table above depicted that most of the items related to Self-Determination related to relatedness had moderate until high levels. The undergraduate students considered the students studying with them as friends with the highest mean (M =4.20, S = 7.08). On the other hand, the mean of the item which stated the feeling of unrelatedness, such as in the item "the people I study together do not seem to like me," had the lowest mean (M = 2.33, S = .951). It showed that those two items showed reversed answers, respectively.

Overall, the findings exemplified that two aspects of self-determination, autonomy (M = 3.29) and competence (M = 3.17) had the moderate level, meanwhile the aspects of relatedness (M = 3.47) had high level, indicating that the undergraduate students have positive attitude more toward online learning in the sense of relatedness.

IV. DISCUSSION

The study's findings show that online grammar sessions meet undergraduate students' basic physiological learning demands despite the lack of physical human interaction. The findings show that all the students had a positive attitude toward three dimensions of self-determination: autonomy, competence, and relatedness, and the sense of relatedness had the highest mean among those three aspects of self-determination. This result is consistent with some related studies conducted in an online learning environment (Chiu, 2021), indicating that digital support strategies can better meet the needs for autonomy, competence, and relatedness in online learning. This outcome is also in line with Zainuddin & Perera's (2019) findings from a flipped classroom study. They discovered that the flip-class setting had successfully established the essential psychological demands of SDT and that the video-recorded lectures, self-regulated learning environments, participation in-class activities, and peer interaction drove the students.

In general, the results in the autonomy domain reveal that students are autonomous in an online classroom, which meets their desire to be in charge and independent. Students can also work independently on questions and discover new concepts without being prompted. Also, this study demonstrates that when students take an online class, they did not feel under pressure, which assist their engagement in learning processes and it improved their capability in completing their assignments. Abdous (2019), feeling under pressure can be caused by a number of factors, including a lack of clear instructions and/or feedback from the instructor, an inability to manage the course workload, feelings of isolation, a lack of self-confidence, and unpleasant past experiences. Thus, students' feeling of autonomy might lead to better learning outcomes and performances.

The current study's findings also show that undergraduate students' perceptions of relatedness in online learning are positive. This finding is in accordance with Butt's (2014) research, which discovered strong positive correlations between students' perceived relatedness in offline and online learning. Furthermore, according to Chiu (2021), relatedness assistance should be prioritized during social separation, school closures, and city lockdowns, as well as during unusual learning scenarios that school kids have never encountered. As a result, creating a good learning environment in an online context is critical to increasing students' sense of connectedness.

According to the findings, students believe their teacher cares about their feelings, which can lead to a positive sense of competence and relatedness. This data was in line with Ryan & Deci's (2020) findings, which said that teacher-student connections are critical to learning. Teachers can encourage pupils to feel connected to their surroundings by encouraging efficient engagement and communication (Garn & Jolly, 2013). Moreover, since engagement is no longer limited to the actual classroom but may be mediated by modern technologies such as the Internet, attaining this sense of connectedness is conceivable. Furthermore, the participants in this study regard persons they meet on social media platforms as acquaintances. Students who prefer to remain silent or do not like to speak directly benefit from online learning. This finding is in line with a study conducted in a blended learning context by (Wong, 2019), who discovered that students had more opportunities to be active and socialize on online platforms than in face-to-face classes.

V. CONCLUSION

In a fully online learning environment, undergraduate students still perceived three aspects of self-determination: autonomy, competence, and relatedness. According to the study, students in the online learning classroom had a positive attitude toward autonomy, competence, and relatedness. Students felt more autonomous in completing assignments and could be more active than in traditional classrooms due to online learning was less controlled and lacks tangible human connections. Students could participate actively in course activities, had positive attitudes regarding the course and its activities, and gained confidence in accomplishing challenging tasks when they perceive a sense of relatedness. Also, students would feel intrinsically driven if these three dimensions of self-determination were met. They would then be able to comprehend the lesson, which would have an impact on their learning results. The researchers suggest that teachers considered making the learning environment more relevant, utilizing self-determination theory as a guide.

This research has raised several questions that need to be investigated further, particularly regarding the relationship between students' academic achievement and self-determination in a fully online learning environment. It is also worthwhile for other researchers to investigate how students experience autonomy, competence, and relatedness in online learning by embarking on in-depth interviews and observation. More qualitative work is needed across SDT to build a more thorough picture of experiences, behaviors, and reasons in need of supportive schools and promote translational research for everyday usage. Future research can be done by applying an exploratory sequential method to dig for more information concerning self-determination in both online and traditional learning modes. The findings of this study are likely to provide teachers with new insight into the importance of these three factors. Because these dimensions of self-determination are critical in accomplishing effective learning, online teachers can utilize SDT strategies to build activities that enhance autonomy, competence, and relatedness.

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