BIoLAE - Journal
Britain International of Linguistics, Arts and Education Sciences Journal
Publish : March - July - November
E-ISSN: 2685 - 4813
P-ISSN: 2685 - 4805
http://biarjournal.com/index.php/biolae

Exploring Students' Engagement in Blended Learning

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Abstract: *The COVID-19 pandemic brought significant changes to education, prompting a shift to blended learning post-2022. A study conducted with 250 English Education master's students at Universitas Negeri Yogyakarta explored student engagement in this new learning model. Using an adapted engagement scale and assessing barriers and efforts, researchers found moderate engagement levels with low barriers. Students actively worked to maintain their engagement, regardless of gender or age, though differences in engagement levels did surface between males and females, and across age groups. Interestingly, efforts and barriers didn't significantly vary by gender or age. The study concluded that both barriers to engagement and students' efforts strongly influenced their overall engagement in blended learning. These findings highlight the adaptability and commitment of students in navigating blended learning environments, underscoring its effectiveness as a teaching approach post-pandemic*

Keywords: *Blended learning, Higher Education, Student Engagement*

I. Introduction

After the COVID-19 pandemic, online learning has emerged as a pivotal concern in Indonesia's educational landscape (Adedoyin & Soykan, 2023). It has progressively supplanted traditional face-to-face learning, providing a viable alternative for students unable to physically attend classes. Indonesia swiftly pivoted to nationwide online learning in response to COVID-19, mandated by Circular Letter No. 4/2020 from the Ministry of Education and Culture, effectively transitioning from physical classrooms to virtual platforms. This transition underscored online learning's potential to mitigate the inherent limitations of traditional educational approaches. As COVID-19 cases abated, Indonesia began transitioning towards a blended learning model, integrating both face-to-face instruction and online learning components.

Traditional face-to-face learning in Indonesian schools has been critiqued for several deficiencies. Ni (2022) identifies issues such as low student engagement, delayed responsiveness, and environmental distractions that disrupt learning focus. Nadialista Kurniawan (2021) further criticizes the traditional model for its limitations in fostering student involvement and effectiveness. These challenges can be addressed through alternative pedagogical approaches like case-based and cooperative learning, proven to enhance academic achievement and non-cognitive skills (Nadialista Kurniawan, 2021).

Three years post-pandemic, Indonesian educators and students have significantly enhanced their proficiency in organizing online learning and employing diverse strategies to foster learning across various settings (Conner et al., 2023). Despite ongoing recovery efforts, Indonesia has moved away from exclusive reliance on online learning, embracing blended learning as a preferred instructional method in the post-pandemic era (Rapanta et al., 2021). This

DOI: *https://doi.org/10.33258/biolae.v6i2.1080*

approach combines the flexibility of online platforms with the interpersonal dynamics of face-to-face interactions, catering to the diverse needs of students, including those balancing work or other commitments (Suharti et al., 2021).

To address the evolving challenges in education, institutions must adopt innovative teaching strategies and leverage technological advancements. The Ministry of Education and Culture has responded with circular letters (SE) focusing on COVID-19 prevention and management, illustrating a proactive approach to adapting educational practices (Ministry of Education and Culture, 2020). Blended learning, characterized by its integration of physical and virtual learning environments, aligns with contemporary trends in higher education that emphasize student-centered approaches and enhanced learning outcomes (Vaughan, 2014).

While blended learning presents a promising educational framework in Indonesia, its effectiveness in engaging students remains a subject of scrutiny (Mu'ayyadah & Sahiruddin, 2020; Bolliger & Martin, 2018). Understanding and improving student engagement in blended learning environments requires further exploration, considering factors such as communication dynamics between educators and students, technological integration, and the overall learning experience (Laksana et al., 2019; Hariadi & Simanjuntak, 2020). Future research should delve deeper into these aspects to optimize the potential of blended learning and enhance educational outcomes across diverse learning contexts.

II. Review of Literatures

2.1 EFL Teaching and Learning

A classroom serves as a crucial space where students, educators, and teaching methodologies converge to facilitate learning (Barus et al., 2022). Teachers play a pivotal role in shaping students' holistic development by guiding their academic journey. Research indicates that well-designed classrooms have the potential to enhance motivation and academic achievement (Gherasim et al., 2011). This underscores the significance of classroom structure, which is established by educators and educational institutions, in influencing student engagement. Effective teachers who create stimulating learning environments and actively engage students are both essential components for successful educational outcomes.

Interaction between teachers and students within the classroom environment is crucial for fostering a conducive learning atmosphere. The quality of interactions largely determines whether the classroom environment is positive or negative. Positive relationships between instructors and students contribute significantly to creating a conducive learning environment (Abdullah et al., 2012). A positive classroom atmosphere not only makes learning enjoyable but also enhances teacher and student satisfaction while promoting effective learning.

In English as a Foreign Language (EFL) classrooms, researchers have highlighted the challenge of maintaining student engagement. Barus et al. (2022) emphasize the importance of deep collaboration between teachers and students to overcome this challenge. Despite intrinsic motivation among some students, current teaching methodologies often fall short in creating an actively engaging learning environment. Anita and Susilawati (2018) argue for the necessity of schools and educators to design lessons that actively encourage student participation.

To address the issue of student engagement in EFL classrooms, teachers should focus on creating a positive and interactive learning environment through effective communication and

collaboration with students. Adopting a student-centered approach, where teachers tailor their teaching to meet the needs and interests of students, can cultivate a genuine enthusiasm for learning English and ultimately enhance academic outcomes.

2.2 Students' Engagement

Student engagement encompasses various facets that contribute significantly to academic success and personal development. According to Fredricks et al. (2004), it comprises behavioral, emotional, and cognitive dimensions. Behavioral engagement involves students' active participation in educational activities, such as attending classes, completing assignments, and adhering to school rules. Emotional engagement pertains to students' feelings toward their peers, teachers, and learning experiences, encompassing aspects of joy and satisfaction. Cognitive engagement reflects the mental effort students exert to comprehend and master challenging academic content, demonstrating their interest and focus in learning (Conner, 2016).

These dimensions of engagement are interconnected, with each influencing the others. For instance, active participation in class activities often correlates with deeper cognitive and emotional engagement, fostering a positive learning experience. While terminology and classifications may vary across studies, the fundamental role of student engagement in shaping educational outcomes remains consistent. Understanding and fostering these dimensions are crucial for educators aiming to enhance students' overall learning experiences and achievements in both traditional and blended learning environments.

2.3 Blended Learning

Blended learning, as defined by various scholars (Wichadee, 2017; Fadillah et al., 2020), integrates traditional face-to-face teaching with online activities to enhance the learning experience. This approach combines synchronous and asynchronous online interactions with classroom-based sessions, aiming to leverage the strengths of both modalities. It allows for flexibility in learning, overcoming the constraints of time and location, and promoting a more interactive and adaptable educational environment (Kanuka & Rourke, 2013).

In the context of Indonesia, the Ministry of Education has recognized the potential of blended learning, particularly in response to the challenges posed by the COVID-19 pandemic (Gayatri et al., 2023). The government has mandated the integration of online learning components with traditional classroom teaching, starting in higher education institutions in 2021 (Circular Letter of Learning Organization in Higher Education). Despite its potential benefits, the implementation of blended learning in Indonesia faces challenges, such as the need for comprehensive teacher training and infrastructure development (Wuryaningsih et al., 2019; Zuhairi et al., 2006).

However, the effectiveness of blended learning in Indonesian higher education remains a subject of debate and requires further investigation (Hoerudin, 2022). While some educators emphasize its adaptability and potential to cater to diverse learning needs and preferences, others highlight issues such as insufficient access to technology among students and the need for better instructional strategies to engage learners effectively (Hayati et al., 2021). Addressing these challenges is crucial for maximizing the benefits of blended learning and ensuring its successful integration into the Indonesian educational system.

2.4 Demographic Variables Related to Students' Engagement

Gender differences in student engagement within blended learning environments have been a topic of exploration across several studies. While Heinze and Procter (2010) highlighted

how medium, audience, and subject familiarity can influence interaction with course materials, Adams et al. (2020) observed that male students often achieve higher scores, whereas female students demonstrate stronger performance in learning activities and perceive blended learning as more beneficial. Lin et al. (2019) further found that women tend to excel in online collaborative settings, showcasing effective communication skills. However, Brook and Beauchamp (2015) indicated that overall attitudes towards blended learning are positive across genders, with no significant gender-based differences in perceptions noted. Conversely, Yu et al. (2023) concluded that while male students may exhibit more favorable views towards online learning, there are no statistically significant gender disparities in blended learning outcomes once technical ability differences are accounted for. The relationship between gender composition, engagement types, and their impact on student engagement continues to evolve, as highlighted by Tison et al. (2011).

Regarding age, research underscores various influences on student engagement in blended learning. Jin et al. (2022) suggested that while there may not be significant differences in behavioral and cognitive engagement based on age, emotional engagement can vary. Adams et al. (2020) similarly noted differences in engagement across age groups and other demographic factors. Hartono et al. (2019) specifically found that younger students often exhibit higher levels of engagement compared to older peers, attributing this to differing needs for growth and developmental stages. Conversely, Fadillah et al. (2020), focusing on younger students, observed heightened engagement levels among pupils aged twelve to sixteen. In higher education settings, however, older students tend to demonstrate higher engagement, as highlighted by Gibson and Slate (2010). Course design and student perceptions play pivotal roles in shaping these engagement patterns across different age groups, as emphasized by Manwaring et al. (2017).

III. Research Methods

A quantitative survey design would be adopted for this research. Creswell (2012) stated that survey research is a statistical test used to evaluate attitudes, beliefs, and behaviors using a survey to assess individual viewpoints. This survey design would be utilized in this study to analyze attitudes and practices of student participation, to compare group opinions between students as well as among students' gender and age themselves, and to evaluate the blended learning program itself. This type of survey might potentially be used to know community needs and for national assessment. The survey employed in this research was a cross-sectional survey, which would be completed in a single moment in time.

This study included all English students from magister degree at State Yogyakarta University, who had experience with blended learning throughout the pandemic and new normal phase. During the pandemic and new normal, teaching and learning process in this university used blended learning and considered student interaction as a vital aspect of EFL learning. As a result, they fulfilled the requirements for becoming a participant in the context of student participation in blended learning.

The research population included 311 students from the class of 2022, the class of 2023 and students from even semester intake program. The population was presented as below:

Table 1. List of Population

No	Class of Student	Number of Student
1	Class of 2022	108 students
2	Class of 2023	104 students
3	Even Semester Intake	99 students
	Total	311 students

The simple random sampling strategy, which included probability sampling, would be used to select the sample for this study. This type of sampling would give all target populations an equal chance of being selected. According to Creswell (2012) using a quantitative sampling technique called simple random sampling, the researcher chooses individuals (or units, such as schools) for the sample with the goal of ensuring that every sample of size N has a same chance of being chosen from the population. Simple random sampling was used to select units to be taken from a representative sample of the population.

The sample size was chosen in relation to the population's varying total number. The researcher used the following Slovin formula to calculate the sample size (Ryan, 2013):

$$n = \frac{N}{1 + Ne^2}$$

n = Sample minimal e = Error margin

N = Total of population

$$n = \frac{311}{1 + 311 \times 0.05^2} = \frac{311}{1 + 0.7775} = \frac{311}{1.7775} = 174.9 \rightarrow 175$$

In this research, the margin of error that was used was 5%, so the accuracy of the sample would be 95%. Based on the result of the calculation above, 175 respondents would be taken as a sample of this research. However, all 311 students were given a chance to participate in this research. Finally, the researcher was able to obtain 250 participants to collect the data. Hence, there were 250 participants of this present research which reached the minimum of research sampling to be selected.

The researcher used a questionnaire to measure the students' engagement in blended learning. The respondents would be asked to select one of the alternatives that correspond to their actual circumstances as described in surveys. The questionnaire would be given to respondents through Google Forms by the researcher. Furthermore, the tool for this study would be a questionnaire adapted from a variety of sources.

This study utilized the Fredericks' School Engagement Scale, originally developed by Maroco et al. (2016), and adapted it for the context of higher education to assess student engagement in blended learning environments. The adaptation process involved modifying the questionnaire to align closely with the specific research focus and needs of the study. This included eliminating irrelevant sections, incorporating new questions to target particular aspects related to blended learning, and adjusting the wording for enhanced clarity within the study's context. The questionnaire encompassed demographic variables such as gender and age, using close-ended items structured across three dimensions.

Table 2. Blueprint of Questionnaire for Students' Engagement

No	Dimension	Indicator	Reference
1	Behavior	Interacting in a meaningful way with others in the class, Demonstrating the learning	Maroco et al (2016) taken from the original Fredericks's School Engagement Scale adapted for the university context
2	Cognitive	Using time and energy to learn materials and skills	
3	Emotional	Emotionally involved with their learning	

In this study, a questionnaire was developed to explore the barriers hindering students' participation in EFL blended learning. The questionnaire was adapted from Bond and Bedenlier's (2019) framework on microsystem factors that influence student engagement, which draws from Bronfenbrenner's bioecological model (Bronfenbrenner, 1979, 1986; Bronfenbrenner and Ceci, 1994). The adaptation involved using closed-ended questions aimed at investigating students' perceptions of obstacles to engagement specifically within the context of EFL blended learning.

Table 3. Blueprint for Barriers of Students' Engagement in Blended Learning

No	Dimension	Indicator
1	Student	Motivation, identify, interest, personality, self-efficacy, self-regulation, health, and well-being
2	Teacher	Feedback, support, time invested, ICT skills & knowledge, technology acceptance, use of technology, prior ICT experience, content expertise, and presence
3	Curriculum	Design, challenging, useful/authentic, relevant and collaborative
4	Technology	Accessibility, Usability, Technology choice, ICT skills & knowledge, Technology acceptance, Prior ICT experience
5	Peers and Family	Opportunities to collaborate, Respectful relationship, Clear boundaries and expectations, 'Seeing' each other, Sharing, Respond to the work of others. Parental involvement and engagement with learning, ICT skills & knowledge, Technology acceptance, Prior ICT experience, Relationship
6	Institution	Sense of community, Supportive, Assessment, Design

The questionnaire utilized in this study adopted the dimensions and indicators consistent with Bond and Bedenlier's (2019) framework on microsystem factors influencing student engagement, which is rooted in Bronfenbrenner's bioecological model (Bronfenbrenner, 1979, 1986; Bronfenbrenner and Ceci, 1994). It employed closed-ended questions to explore students'

perceptions regarding the strategies aimed at identifying and overcoming obstacles, as well as maintaining student engagement in EFL blended learning.

Table 4. Blueprint of Effort of Students' Engagement in Blended Learning

No	Dimension	Indicator
1	Student	Motivation, identify, interest, personality, self-efficacy, self-regulation, health, and well-being
2	Teacher	Feedback, support, time invested, ICT skills & knowledge, technology acceptance, use of technology, prior ICT experience, content expertise, and presence
3	Curriculum	Design, challenging, useful/authentic, relevant and collaborative
4	Technology	Accessibility, Usability, Technology choice, ICT skills & knowledge, Technology acceptance, Prior ICT experience
5	Peers and Family	Opportunities to collaborate, Respectful relationship, Clear boundaries and expectations, 'Seeing' each other, Sharing, Respond to the work of others. Parental involvement and engagement with learning, ICT skills & knowledge, Technology acceptance, Prior ICT experience, Relationship
6	Institution	Sense of community, Supportive, Assessment, Design

All questionnaires for students were distributed through Google Form. The questionnaire provided the following opinions based on the Likert scale to represent the respondent's opinions clearly.

Table 5. The Likert Scale Rating (Creswell, 2012)

Option	Score
Strongly Disagree	1
Disagree	2
Agree	3
Strongly Agree	4

In this study, various quantitative data analysis techniques were employed to address the research questions related to students' engagement in blended learning. Initially, descriptive statistics were used to summarize and explore the data collected through questionnaires, focusing on the overall intensity of student engagement, barriers encountered, and efforts made to maintain engagement. It's important to note that descriptive statistics provide insights into the sample data obtained, rather than making inferences about the entire population under study (Field, 2018).

Furthermore, Multivariate Analysis of Variance (MANOVA) and Multiple Regression analyses were utilized to test hypotheses using IBM SPSS 27.0. MANOVA was selected to examine how student perspectives, gender, and age influence the intensity of student engagement across behavioral, cognitive, and emotional dimensions in EFL blended learning settings. The interpretation of MANOVA results relied on statistical criteria such as the coefficient (F) and significance level ($p \leq .05$) of Wilks' Lambda or Pillai's Trace, particularly in cases where

variance-covariance assumptions were not met (Tabachnick & Fidell, 2019). Post-hoc tests would then be applied to further elucidate significant differences among sample groups and the various dimensions of dependent variables.

Meanwhile, Multiple Regression analysis was chosen to explore how barriers and efforts related to student engagement in EFL blended learning predict the overall intensity of engagement. This approach allowed the researchers to assess the relationship between predictor variables and the outcome variable (intensity of student engagement), as indicated by the values of R (simple correlation) and R^2 (explained variance). Significance levels ($p \leq .05$) determined whether the hypotheses were supported, indicating that barriers and efforts significantly influenced student engagement outcomes (Hair et al., 2019). Overall, these quantitative methods provided robust analytical tools to explore and understand the dynamics of student engagement in blended learning contexts.

IV. Discussion

4.1 The Intensity of Students Engagement differ by Students' Gender

The study utilized the adapted questionnaire from Maroco et al. (2016), originally derived from Frederick's School Engagement Scale tailored for university settings, to assess students' engagement in EFL blended learning. Divided into behavior, cognitive, and emotion engagement dimensions, the 12-item questionnaire aimed to compare engagement intensity across genders. The findings revealed significant differences, with female students demonstrating higher levels of engagement in behavior, cognitive, and emotional aspects compared to male students. This aligns with prior research by Amir et al. (2014), Ní Fhloinn et al. (2016), Morante et al. (2017), and Hartono et al. (2019), highlighting consistent trends where female students tend to be more engaged than their male counterparts in educational settings.

Tison et al. (2011) suggested that gender disparities in engagement are influenced by factors such as engagement type and composition, advocating for strategies to increase male student engagement. Despite a larger proportion of female students in the study, previous research by Morante et al. (2017) noted that females exert more effort to maintain engagement in blended learning contexts, resulting in enhanced academic outcomes compared to males. However, this study did not directly compare effort levels between male and female students in EFL blended learning. Overall, the Multivariate Analysis of Variance (MANOVA) supported the hypothesis of significant gender differences in engagement perspectives across various dimensions in EFL blended learning, confirming that female students exhibit higher levels of engagement overall.

4.2 The Intensity of Students Engagement differ by Students' Age

The study employed Multivariate Analysis of Variance (MANOVA) to examine how student engagement in behavior, cognitive, and emotional dimensions varied across different age groups specifically comparing students aged 20-30 years with those aged 31 years and above. Previous findings indicated that student engagement levels in EFL blended learning were moderate across both age categories, with a notable tendency towards higher engagement among older students. This aligns with research by Deena Ingham (2016) and McCune et al. (2010), who highlighted that older students, particularly those over 26 years old, often exhibit greater levels of academic engagement compared to their younger peers.

Furthermore, this study contributed new insights by exploring how age impacts behavior, emotion, and cognitive engagement in blended learning contexts. While some studies, such as

those by Amir et al. (2014), Hartono et al. (2019), and Gibson & Slate (2010), suggested that younger learners generally show higher levels of engagement, contrasting perspectives indicated that older students tend to participate more actively at the university level. Interestingly, while behavior and cognitive engagement showed relatively stable patterns across different age groups, emotional engagement exhibited significant variations, as noted by Yu et al. (2023). Additionally, research from Simonds & Brock (2014) highlighted that older students often benefit from structured learning activities such as pre-recorded video lectures in blended learning environments, contributing positively to their overall engagement levels.

The findings underscored the nuanced relationship between age and student engagement in EFL blended learning, with older students generally demonstrating higher levels of engagement than their younger counterparts. While behavior engagement remained consistently high across age groups, emotional engagement emerged as a distinct area where significant differences were observed. These insights suggest that tailored approaches to instructional design and support mechanisms may be beneficial in optimizing engagement across diverse age demographics in blended learning settings.

4.3 The Efforts of Students Engagement differ by Students' Gender and age

The questionnaire developed to assess students' engagement efforts in EFL blended learning drew upon Bronfenbrenner's bioecological model, as discussed by Bond & Bedenlier (2019). This model provided a framework for constructing a comprehensive survey comprising 16 items across five categories: student factors, teacher influence, curriculum design, technological resources, and support from peers, family, and institution. This study aimed to investigate how gender and age influence students' ability to maintain engagement in EFL blended learning environments. Statistical analysis revealed no significant differences in effort between genders or age groups, aligning with Spelke (2005) and Jacob (2002), who argue that gender does not inherently affect learning effort. Rather, engagement is influenced by non-cognitive skills and educational contexts.

The research highlighted a pervasive commitment to engagement among participants, with 82% of students demonstrating a consistent effort to remain engaged throughout blended learning, while only 4% reported minimal effort. From an age perspective, 93% of students exhibited high engagement levels, with merely 2% showing minimal effort. This underscores students' proactive approach to learning activities and their awareness of areas needing improvement. Notably, students emphasized a strong inclination towards leveraging technology, with 162 students expressing enthusiasm for learning new technological features. This positive response indicates a robust engagement with technological components within the blended learning environment.

Institutional support emerged as a crucial factor in fostering student engagement. Effective implementation of government policies for blended learning, as noted by Odum et al. (2021), significantly contributed to positive student involvement. Furthermore, both younger and older students exhibited similar levels of effort in utilizing technological tools effectively. A significant majority (152 students) ensured the functionality of technological devices before use, reflecting their commitment to optimal learning conditions. Additionally, 162 students expressed readiness to acquire new technological skills, highlighting a universal dedication to maximizing engagement in blended learning.

In conclusion, this study underscored the significant efforts made by students of varying genders and age groups to enhance their engagement in EFL blended learning environments.

The collaboration among students, supported by institutional frameworks and technological resources, played a pivotal role in overcoming potential barriers and fostering conducive learning environments. Specifically, older students noted institutional practices such as regular course evaluations as factors contributing to lower perceived barriers, thereby enhancing the overall success of blended learning initiatives.

4.4 The Barriers of Students Engagement differ by Students' Gender and age

This research employed a specifically designed questionnaire to identify barriers hindering student engagement in EFL blended learning environments. Utilizing Bronfenbrenner's bioecological model, as outlined by Bond & Bedenlier (2019), the study structured its inquiry around six key microsystem variables: student factors, teacher influence, curriculum design, technology integration, peer and family support, and institutional factors. The questionnaire, comprising 16 questions, aimed to discern differing perceptions of barriers among students in blended learning settings.

From a gender perspective, both male and female students identified technology as a significant barrier to engagement in EFL blended learning. Specifically, 77 students reported encountering difficulties in using technology effectively. This finding underscores the challenges students face in adapting to the technological demands of blended learning, which can impact their motivation and self-confidence in this educational context.

Examining barriers by gender and age, the study found no statistically significant differences, consistent with findings by Douglas et al. (2020) and Widodo et al. (2023). Both gender and age were not found to significantly influence the barriers encountered by students in their learning journeys. This suggests that technological challenges and other barriers are perceived similarly across different demographic groups, highlighting the universal nature of these obstacles in blended learning environments.

Moreover, the study highlighted additional challenges stemming from the integration of ICT tools required for blended learning. Many students expressed unfamiliarity with these technologies, which are essential for accessing course materials and participating in online activities. Furthermore, interactions with peers and family were limited, with few students engaging in substantive discussions related to course content outside of class. This lack of peer and family support can impact students' ability to collaborate and stay motivated in blended learning formats, as noted by Stanard et al. (2010).

In conclusion, despite the overall positive engagement reported by the majority of students, a significant proportion encountered barriers related to technology and limited peer and family interactions. These findings underscore the importance of comprehensive support structures and educational policies to address these challenges in EFL blended learning. Collaborative efforts among stakeholders are crucial to minimizing obstacles and enhancing student engagement in blended learning environments, as emphasized by initiatives such as the National Survey on Student Engagement (NSSE), which aims to continually improve educational practices in blended learning.

4.5 The Relationship between the Barriers and Efforts of Student Engagement in EFL Online Learning towards the Intensity of Student Engagement in EFL Blended Learning

This study explored the relationship between barriers to student engagement and the efforts made to overcome these obstacles in the context of EFL blended learning. Using

regression analysis, the research identified three models to predict student engagement, with barriers and efforts collectively explaining 65.1% of the variance and emerging as the strongest predictors. The findings underscored the critical role of addressing both minor challenges and significant barriers to enhance student participation effectively in blended learning environments.

To foster greater student engagement in EFL blended learning, addressing various challenges is essential, as highlighted by Oraif & Elyas (2021) and Ridho (2020). These studies emphasize that students who actively address their challenges demonstrate higher levels of engagement in blended learning contexts. Conversely, students who encounter obstacles without adequate efforts to resolve them may experience diminished engagement. This underscores the importance of comprehensive support systems involving stakeholders such as government bodies, educational institutions, teachers, families, and students themselves in promoting effective blended learning practices.

Ultimately, the research supported the hypothesis that a significant relationship exists between the barriers encountered during blended learning and the efforts invested to overcome these obstacles, directly influencing the intensity of student engagement. By acknowledging and addressing barriers while fostering proactive efforts from all stakeholders, including students themselves, educators can optimize the conditions for robust engagement in EFL blended learning. This approach aligns with the study's conclusion that both identifying barriers and mobilizing efforts collectively serve as crucial predictors of student engagement in blended learning environments.

V. Conclusion

This study delved into the dynamics of university students' engagement in EFL blended learning, focusing on how gender and age influence their perceptions of engagement intensity, barriers encountered, and efforts made. The research aimed to uncover whether these demographic factors impact student engagement in terms of intensity, efforts, and barriers in EFL blended learning contexts. Analyzing the data revealed that students across genders and age groups generally shared similar perspectives on the level of engagement required in EFL blended learning, which was perceived as moderate. Key aspects of engagement highlighted by students included active participation in class discussions, group assignments, and applying acquired knowledge to solve new problems, indicating a robust behavioral engagement.

Despite the moderate engagement levels reported, technology, peers, and family emerged as significant barriers affecting student engagement in blended learning environments. Interestingly, both gender and age differences did not yield significant variations in these perceptions. The study underscored the pivotal roles played by educational institutions, lecturers, students, and families in supporting and enhancing the efficacy of blended learning initiatives. However, it also identified persistent challenges stemming from unavoidable barriers that need to be addressed comprehensively.

Furthermore, the study found disparities in engagement levels based on gender and age demographics. Female students and those aged 31 and above exhibited higher engagement levels compared to male students and younger counterparts. Moreover, the research highlighted a discernible relationship between perceived barriers and efforts in EFL blended learning. Students who perceived fewer barriers and exerted greater efforts were more likely to demonstrate higher intensity of engagement in blended learning. This underscores the importance of minimizing

obstacles and promoting proactive engagement strategies to optimize learning outcomes in EFL blended learning environments

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