

Unreadiness in the Student-Centered English Language Learning Context in the Age of Online Learning

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Abstract

As online learning gains prominence, exploring the challenges and implications of student-centered English language learning in a digital context becomes crucial. This study investigates the experiences of Indonesian students engaging in student-centered English language learning through online platforms. The research aims to identify challenges, assess their impact on language proficiency and learning experiences, propose methods to enhance digital literacy and understand the relationship between digital literacy and readiness for student-centered online learning. The study reveals students' challenges in online student-centered English language learning. These challenges encompass technical issues, limitations in face-to-face interaction, time management constraints, the absence of personalized attention, digital literacy hurdles, and language barriers. Regarding the Digital Literacy challenge, the mean score is 2.73, similar to technical issues, and exhibits a relatively low standard deviation of 0.95. The Limited Personalized Attention challenge yields a mean score of 2.66 and a standard deviation of 1.01, indicating moderate severity and a diversity of perspectives. These challenges encompass technical difficulties, limited digital literacy, and difficulties maintaining self-discipline and motivation. The impacts of these challenges include hindered language proficiency development and diminished overall learning experiences. Better academic performance and overall learning accomplishments were shown to be significantly predicted by active engagement and digital literacy improvement (Beta = 0.432, $p < 0.001$). Effective methods to enhance digital literacy emerge, including tailored online tutorials and interactive learning modules. By unraveling the intricacies of online language learning in a student-centered context, this research contributes to the ongoing dialogue surrounding effective pedagogical strategies in the age of digital education.

Keywords: online learning; student-centered; education; readiness; online platforms

1. Introduction

Indonesia has witnessed a significant surge in the adoption of online learning platforms and technologies. The proliferation of internet connectivity, coupled with advancements in digital tools, has facilitated the expansion of online education across various domains. In higher education, Tamah et al. (2020) added that numerous universities and institutions have embraced online learning as an alternative mode of instruction, offering flexibility and accessibility to a diverse student population. Additionally, the government's initiatives to enhance digital infrastructure and promote e-learning have further propelled the growth of online education in Indonesia. In recent years, Irawan et al. (2020) explained that the Indonesian government has recognized the significance of English language proficiency and has integrated English learning into the national curriculum. English language proficiency tests are often prerequisites for higher education opportunities and employment in sectors that engage with international partners. Additionally, the growth of the tourism and hospitality industry, coupled with the country's participation in regional and international forums, underscores the practical importance of English proficiency for effective communication and engagement.

Student-Centered Learning (SCL) is an instructional methodology that prioritizes students' active involvement and engagement in the learning process. Li and Guo (2015) emphasized that the strategy entails granting students autonomy and authority in their learning process while the instructor assumes the role of a facilitator rather than the only purveyor of knowledge. Ali (2019) determined that the primary objective of the SCL program is to cultivate several essential qualities and talents in students, including creativity, leadership, self-confidence, independence, discipline, critical thinking, communication skills, collaboration, technical knowledge, and global awareness. Emaliana (2017) highlighted that the introduction of Student-Centered Learning (SCL) in Indonesia is seen as an innovative solution to the challenges encountered by students in conventional Teacher-Centered Learning (TCL) methodologies. In the context of Teaching and Learning in Higher Education, Müller and Mildemberger (2021) explored that it has been observed that students in a



Traditional Classroom Learning (TCL) environment tend to assume a passive role as consumers of information, hence potentially hindering their ability to apply acquired knowledge in real-world contexts effectively. In contrast, Hoidn and Reusser (2020) argued that the Student-Centered Learning (SCL) approach fosters a dynamic learning environment whereby students are actively involved and engaged, so enabling them to assume ownership of their educational journey and cultivate their competencies and aptitudes.

The transition to student-centered online English language learning in Indonesia is accompanied by a range of challenges that impede readiness and hinder effective engagement (Jacobs & Lie, 2022). Technical challenges, ranging from limited access to devices and reliable internet connectivity, often create barriers for students. Moreover, digital literacy gaps exacerbate these challenges, hampering students' ability to navigate online platforms seamlessly. This unreadiness undermines the envisioned benefits of student-centered learning, where students should be empowered to navigate digital tools proficiently. While Student-Centered Learning (SCL) offers promising benefits for the online learning environment in Indonesian universities, Prawiyogi et al. (2021) elaborated that it is vital to acknowledge and address the potential drawbacks that may arise during its implementation. One of the primary concerns in the Indonesian context is the uneven access to digital resources and technology. While urban areas might enjoy better connectivity, remote and rural regions may face barriers to online learning platforms. Tewathia et al. (2020) indicated that the digital divide can exacerbate educational inequalities, limiting the opportunities for students from underserved communities to participate fully in SCL. Rapanta et al. (2021) explained that universities must work to bridge this gap by providing necessary technological resources and ensuring all students have equal access to online learning materials. Students benefit from face-to-face interactions with peers and instructors in a traditional classroom setting. The shift to online learning, even in a student-centered approach, can sometimes lead to a sense of isolation and reduced social interaction. Building a sense of community and fostering meaningful interactions in virtual spaces becomes crucial to address this challenge. Incorporating synchronous sessions, discussion forums, and group projects can help create a more engaging and connected online learning environment.

Online platforms provide a flexible and convenient avenue for learners to engage with language learning materials at their own pace, promoting autonomy and self-directed learning. However, Soubra et al. (2022) found that the effectiveness of student-centered approaches in online language learning hinges on the readiness of learners to navigate the digital landscape effectively and engage actively in their learning journey. Heningjakti and Surono (2023) emphasized that "unreadiness" encompasses a range of factors that fully hinder students' ability to engage and succeed in student-centered online language learning environments. These factors encompass technical challenges, limited digital literacy, lack of face-to-face interaction, and struggles with time management. As the country continues to make strides in English language education, it is necessary to assess how students' readiness influences their engagement with student-centered approaches in an online environment. The research question highlighted as follows:

1. What are the main challenges students in Indonesia face when engaging in student-centered English language learning through online platforms?
2. How do these challenges impact their language proficiency and overall learning experience?
3. What are the most effective methods to improve digital literacy among students to enhance their active participation and learning outcomes?
4. How does the level of digital literacy among Indonesian students impact their readiness to engage in student-centered English language learning through online platforms?

2. Method

This study employs an explanatory sequential mixed-methods research design to comprehensively explore the challenges faced by Indonesian students in engaging with student-centered English language learning through online platforms. Combining quantitative and qualitative approaches allows for a holistic understanding of the phenomenon and provides data triangulation for enhanced validity and reliability. The qualitative phase follows the initial quantitative phase. This design aims to provide a more comprehensive understanding of the research problem by using the strengths of both quantitative and qualitative methods.

The research study encompasses a purposive sample of 356 undergraduate students, representing a diverse range of faculties within the specific context of Universitas Budi Luhur. The selection of participants is deliberate and strategic, aiming to provide a comprehensive understanding of the challenges and readiness issues faced by students engaged in online English language learning courses or programs. The choice of Universitas Budi Luhur as the study context reflects the intention to capture a broad spectrum of experiences within a single institution. This inclusion acknowledges the potential variations in students' backgrounds, learning preferences, and familiarity with online platforms across different faculties.

Table 1 Demographic Participants

Demographic Data (n:356)		Proportion	
Gender	Male	135	36.99%
	Female	221	60.55%

Age	Less Than 20	287	78.63%
	More Than 20	69	18.90%
Major	Economic and Business	187	51.23%
	Science Communication	56	15.34%
	Engineering	38	10.41%
	Information Technology	75	20.55%
Education Level	High School Diploma	287	78.63%
	College Diploma	52	14.25%
	Bachelor Degree	17	4.66%
English language proficiency *(admissions tests)	Beginner	171	46.85%
	Intermediate	93	25.48%
	Advance	92	25.20%
Technology Accessibility	broadband	249	68.22%
	mobile data	107	29.32%

In the initial phase, a structured survey instrument is administered to gather quantitative data. The survey includes Likert-scale questions that assess students' perceptions of challenges related to online student-centered English language learning. The survey also collects demographic information such as age, gender, major, and prior experience with online learning. Following the survey, semi-structured interviews are conducted with a subset of participants to delve deeper into their experiences and perceptions. The interviews aim to capture rich qualitative data regarding the challenges, impact on language proficiency, and recommendations for improvement. Approximately $n=53$ participants will be selected for interviews based on their survey responses. The quantitative data collected from the survey will be analyzed using descriptive statistics to determine the frequency, mean, and standard deviation of challenges reported by participants. Inferential statistical tests, including Mann-Whitney U tests and correlation analysis, will explore associations between challenges, demographic variables, and language proficiency. Thematic analysis will be used to analyze the qualitative interview data. The interview transcripts will be coded to identify recurring themes and patterns related to challenges, impact, and strategies for improvement. The qualitative findings will complement and enrich the quantitative results, providing deeper insights into students' experiences.

3. Findings and Discussion

This study's findings and discussion section delve into the insights garnered through an Explanatory Sequential Mixed-Methods Research Design. This section presents a comprehensive analysis of the research questions, merging numerical trends and contextual narratives to provide a holistic understanding of undergraduate students' challenges and readiness levels in online English language learning. By fusing statistical patterns with participants' voices, this design allows for a richer exploration of the complexities underlying student-centered learning in the digital age. The following discussion outlines the key findings, synthesizes quantitative and qualitative evidence, and unearths the nuanced interplay between factors influencing students' preparedness and engagement within this unique learning context.

Research Question 1: What are the main challenges faced by students in Indonesia when engaging in student-centered English language learning through online platforms?

Table 2 The Frequency Challenge and Descriptive Result of n:365

Challenge Statements	Frequency				Mean	S.D	percentiles		
	Always	Often	Seldom	Never			Q1	Q2	Q3
Technical Issues:	25	80	150	110	2.73	0.94	110	2.73	0.94
Lack of Face-to-Face Interaction:	15	90	120	140	2.63	1.02	140	2.63	1.02
Time Management:	100	70	120	75	2.50	1.12	75	2.50	1.12
Limited Personalized Attention:	35	70	120	140	2.66	1.01	140	2.66	1.01
Digital Literacy:	80	40	150	95	2.73	0.95	95	2.73	0.95
Language Barriers:	60	90	100	115	2.66	1.00	115	2.66	1.00
Distractions at Home:	90	60	120	95	2.50	1.12	95	2.50	1.12
Lack of Spoken Practice:	75	80	110	100	2.71	0.99	100	2.71	0.99
Limited Collaboration:	45	70	130	120	2.69	1.00	120	2.69	1.00
Assessment and Feedback:	60	80	110	115	2.68	1.00	115	2.68	1.00
Social Isolation:	70	80	100	115	2.75	0.95	115	2.75	0.95
Limited Language Immersion:	80	60	120	105	2.69	1.00	105	2.69	1.00
Adaptability to Different Learning	50	70	130	115	2.70	0.98	115	2.70	0.98

Styles:

Technology Accessibility:	60	70	130	105	2.70	0.98	105	2.70	0.98
Teacher-Student Connection:	70	80	120	95	2.75	0.94	95	2.75	0.94

The frequency column shows how many students reported experiencing each challenge, while the mean column represents the average score given by the students to rate the severity of the challenge on a scale of 1 to 4, with higher values indicating more severe challenges. The S.D. (Standard Deviation) column measures the spread or dispersion of the responses, indicating the degree of agreement or disagreement among students regarding the challenges. The percentiles, represented by Q1, Q2 (median), and Q3, divide the data into four equal parts, with Q1 being the 25th percentile, Q2 being the 50th percentile (median), and Q3 being the 75th percentile. These percentiles provide insights into the distribution of responses and help understand the range of student perceptions.

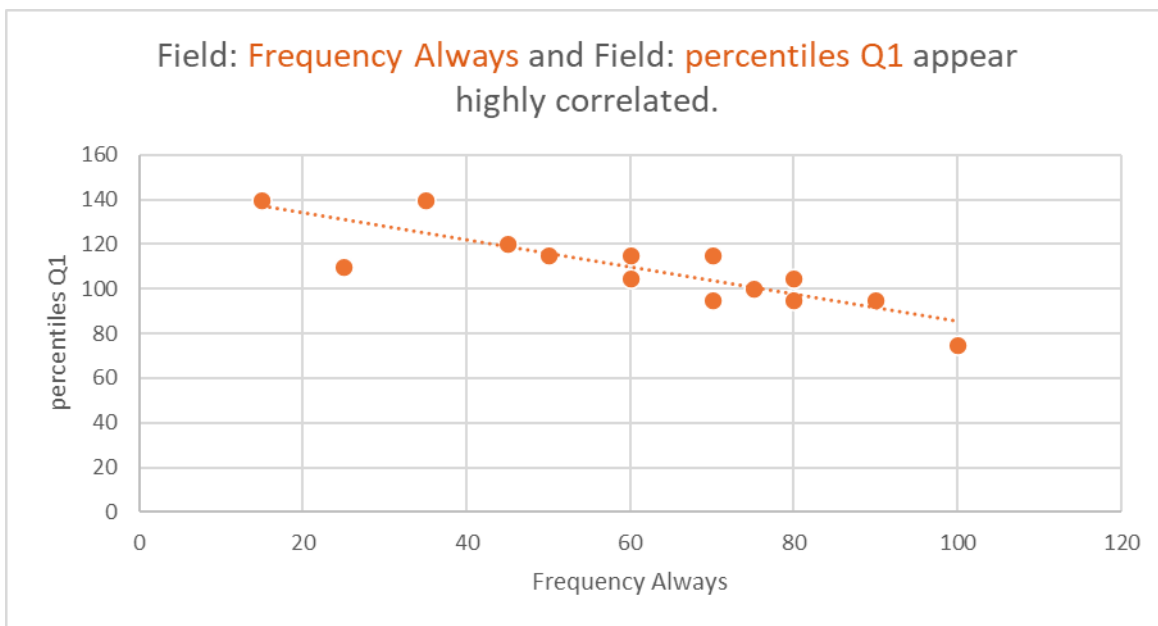


Figure 1 Highly Correlated Always and Percentiles Q1

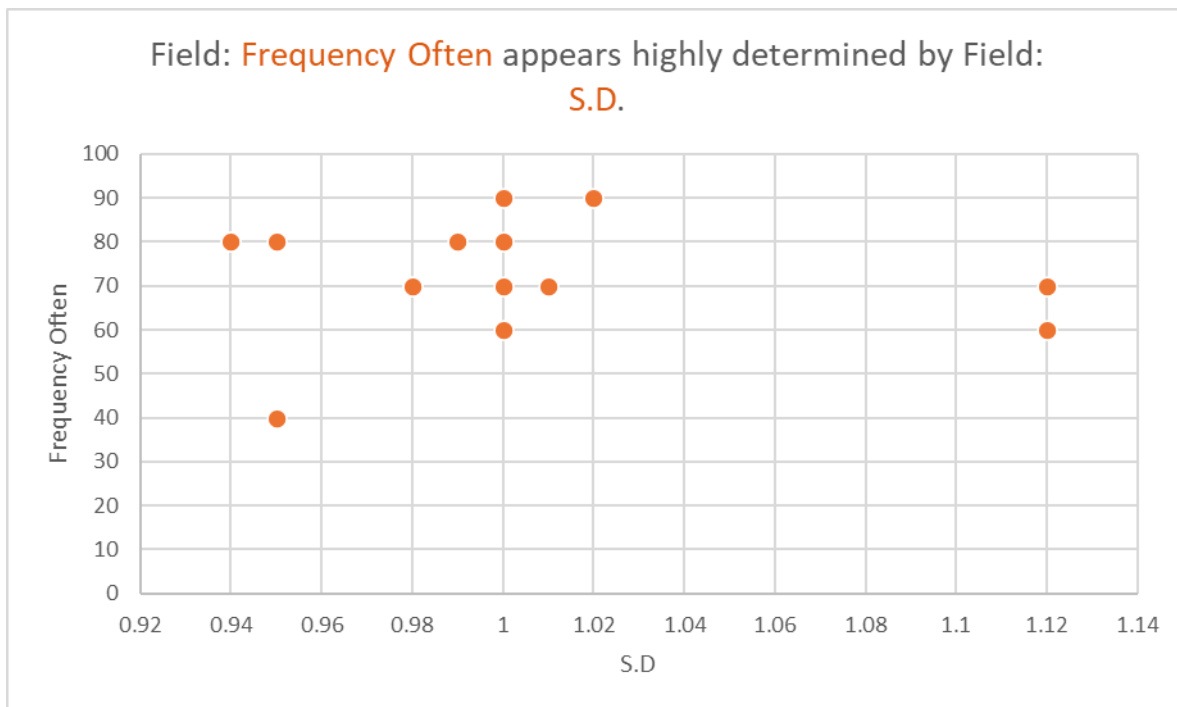


Figure 2 Highly Determined Often and Standar Deviation (S.D)

With a mean score of 2.63 and an S.D of 1.02, the Lack of Face-to-Face Interaction challenge is perceived as moderately severe, and students' opinions are more spread out. This could indicate differing preferences for in-person interactions during language learning. Time Management challenge has a mean score of 2.50 and an S.D of 1.12, showing that it is one of the more severe challenges students face. Managing time effectively in an online learning environment can be difficult for some students. Limited Personalized Attention challenge is also considered moderately severe, and students' perceptions vary with a mean score of 2.66 and an S.D of 1.01. Personalized attention may be lacking in the online setup compared to traditional classrooms. The Digital Literacy challenge has a mean score of 2.73, similar to technical issues, and a relatively low S.D of 0.95. This suggests that while some students may face digital literacy challenges, most have similar experiences. Language barriers are perceived as moderately severe with a mean score of 2.66 and an S.D of 1.00. Students from diverse linguistic backgrounds may find engaging in English language learning challenging.

The respondents face various challenges when engaging in student-centered English language learning through online platforms. These challenges encompass technical issues, limited face-to-face interaction, time management difficulties, and the lack of personalized attention. Digital literacy and language barriers also present challenges, along with distractions at home and the need for more opportunities for spoken practice and collaboration. Furthermore, students express concerns about the effectiveness of assessment and feedback processes and feelings of social isolation and limited language immersion. Technology accessibility and strong teacher-student connections are additional factors influencing the students' online language learning experience. While some challenges are perceived as more severe than others, the diverse nature of these difficulties highlights the need for tailored support and strategies to enhance Indonesia's overall online language learning environment.

The challenges encountered by students engaging in student-centered English language learning through online platforms in Indonesia constitute a significant area of inquiry within education. As the world evolves into a digital age, Rege Colet (2017) confirmed that education paradigms have shifted, and online platforms have become integral to the learning landscape. Peyrefitte, M., & Lazar, G. (2018) compared contextualize the main challenges Indonesian students face in pursuing student-centered English language learning through online platforms. By examining existing studies, Emaliana (2017) summarized that they gain insights into the multifaceted dimensions of these challenges and the potential implications for education.

Table 3 The Result of Cross-Tabulation of Age, Gender, Major and Challenges

Challenges	Major	Male	Female	Total	Male %	Female %
Technical Issues	Economic and Business	25	35	60	7.67%	15.84%
	Science Communication	10	6	16	3.07%	2.71%
	Engineering	6	2	8	1.84%	0.86%
	Information Technology	4	9	13	1.23%	3.88%
Lack of Face-to-Face Interaction	Economic and Business	15	55	70	4.60%	23.66%
	Science Communication	4	1	5	1.23%	0.43%
	Engineering	4	0	4	1.23%	0.00%
	Information Technology	2	19	21	0.61%	8.19%
Time Management	Economic and Business	60	19	79	18.46%	8.19%
	Science Communication	24	7	31	7.38%	3.01%
	Engineering	9	4	13	2.77%	1.72%
	Information Technology	2	13	15	0.61%	5.60%
Limited Personalized Attention	Economic and Business	20	32	52	6.15%	13.76%
	Science Communication	6	3	9	1.84%	1.29%
	Engineering	6	2	8	1.84%	0.86%
	Information Technology	3	3	6	0.92%	1.29%
Digital Literacy	Economic and Business	18	32	50	5.54%	13.76%
	Science Communication	4	1	5	1.23%	0.43%
	Engineering	6	2	8	1.84%	0.86%
	Information Technology	6	5	11	1.84%	2.15%
Language Barriers	Economic and Business	15	25	40	4.60%	10.77%
	Science Communication	8	20	28	2.46%	8.62%
	Engineering	4	4	8	1.23%	1.72%
	Information Technology	3	9	12	0.92%	3.88%
Distractions at Home	Economic and Business	30	20	50	9.23%	8.62%
	Science Communication	6	2	8	1.84%	0.86%
	Engineering	2	0	2	0.61%	0.00%
	Information Technology	2	15	17	0.61%	6.47%
	Economic and Business	29	24	53	8.92%	10.34%

Lack of Spoken Practice	Science Communication	20	17	37	6.15%	7.33%
	Engineering	6	3	9	1.84%	1.29%
	Information Technology	5	19	24	1.54%	8.19%
	Economic and Business	17	27	44	5.23%	11.65%
Limited Collaboration	Science Communication	14	4	18	4.31%	1.72%
	Engineering	4	0	4	1.23%	0.00%
	Information Technology	10	9	19	3.07%	3.88%
	Economic and Business	14	25	39	4.31%	10.77%
Assessment and Feedback	Science Communication	10	17	27	3.07%	7.33%
	Engineering	4	2	6	1.23%	0.86%
	Information Technology	6	19	25	1.84%	8.19%
	Economic and Business	17	22	39	5.23%	9.48%
Social Isolation	Science Communication	14	17	31	4.31%	7.33%
	Engineering	3	6	9	0.92%	2.58%
	Information Technology	10	13	23	3.07%	5.60%
	Economic and Business	20	21	41	6.15%	9.05%
Limited Language Immersion	Science Communication	10	15	25	3.07%	6.47%
	Engineering	4	2	6	1.23%	0.86%
	Information Technology	6	5	11	1.84%	2.15%
	Economic and Business	14	32	46	4.31%	13.76%
Adaptability to Different Learning Styles	Science Communication	8	15	23	2.46%	6.47%
	Engineering	3	4	7	0.92%	1.72%
	Information Technology	7	5	12	2.15%	2.15%
	Economic and Business	15	28	43	4.60%	12.07%
Technology Accessibility	Science Communication	4	8	12	1.23%	3.45%
	Engineering	5	3	8	1.54%	1.29%
	Information Technology	3	20	23	0.92%	8.62%
	Economic and Business	19	21	40	5.85%	9.05%
Teacher-Student Connection	Science Communication	9	18	27	2.77%	7.76%
	Engineering	3	1	4	0.92%	0.43%
	Information Technology	4	7	11	1.23%	3.01%
Age Group						
	Less Than 20	126	161	287	38.77%	69.23%
	More Than 20	30	39	69	9.23%	30.77%
	Grand Total	156	200	356	48.00%	51.43%

In this cross-tabulation table, the study observes the distribution of challenges faced by students in Indonesia when engaging in student-centered English language learning through online platforms based on their majors, gender, and age groups. The table provides valuable insights into the prevalence of various challenges and how they vary among different groups.

Looking at the challenges across different majors, the finding shows that students majoring in Economics and Business encounter many challenges. These challenges include technical issues, limited face-to-face interaction, time management difficulties, and the lack of personalized attention. On the other hand, Science Communication students face technical issues, lack of face-to-face interaction, and limited collaboration. Engineering students also experience some challenges, primarily technical issues and limited personalized attention, while Information Technology students face technical issues and a lack of face-to-face interaction.

Examining the challenges by gender, we observe some interesting patterns. Female students report higher frequencies for most challenges compared to their male counterparts. This gender difference is especially evident in challenges related to face-to-face interaction, limited personalized attention, and language barriers. Regarding age groups, students below 20 tend to face a broader spectrum of challenges than those above 20. Challenges related to technical issues, lack of face-to-face interaction, time management, and limited personalized attention are more prevalent among younger students. Online learning has gained momentum worldwide due to its accessibility and flexibility. However, Gasparyan et al. (2017) endorsed that studies have shown that while online platforms offer numerous advantages, they also present challenges. In the Indonesian context, these challenges could be further exacerbated by the learners' diverse cultural and linguistic backgrounds. Hadi (2018) indicated that the digital divide remains a pertinent issue in Indonesia, potentially influencing students' access to technology and the internet, thus impacting their engagement in online learning.

This cross-tabulation highlights that technical issues and lack of face-to-face interaction are common challenges students across all majors, genders, and age groups face. Moreover, time management and limited personalized attention

also emerge as significant challenges. These findings suggest that addressing technical infrastructure and enhancing interaction and personalized support in online language learning platforms could be crucial in improving the learning experience for students in Indonesia. Additionally, understanding the varying needs of different groups, such as gender and age, can help educators and institutions tailor interventions and support mechanisms to meet the diverse challenges faced by students in their language learning journey. The lack of face-to-face interaction has garnered attention. Garrison and Cleveland-Innes (2005) discuss the importance of social presence in online learning environments, which the absence of physical interaction can hinder. This resonates with the challenge of limited personalized attention highlighted in the study, where students may struggle to establish meaningful connections with instructors and peers, potentially affecting their engagement and motivation (Dixson, 2015).

Research Question 2: How do these challenges impact their language proficiency and overall learning experience?

Table 4 Thematic Analysis Result Of The Impact Of Language Proficiency And Overall Learning Experience

Theme	Subtheme	Definition	Sample Respondent
Hindered Language Development:	Limited Language Practice:	Challenges restrict opportunities for students to practice and develop their language skills.	Due to the lack of language practice opportunities in online classes, improving my speaking and writing skills is challenging. There aren't enough interactive activities to practice with other students, which hampers my language development
	Insufficient Language Exposure	Challenges related to limited exposure to authentic language use and real-life contexts for language learning	"In the online environment, we don't get enough exposure to authentic English language use. It's hard to understand different accents and nuances without real-world interactions."
	Inadequate Speaking Opportunities:	Challenges that hinder students from actively participating in speaking activities, affecting their speaking proficiency.	: "I rarely get the chance to speak during online classes. It's challenging to practice my speaking skills when most of the time is spent listening to lectures and reading materials."
Decreased Motivation:	Technological Frustrations	Challenges arising from technical issues and disruptions during online learning, leading to decreased motivation.	Constant technical issues disrupt the flow of online classes, making it frustrating to follow the lessons and engage in activities. It negatively impacts my motivation to participate in language learning online."
	Disconnect from Learning Environment:	Challenges that result in students feeling disconnected from the learning process and less engaged in their studies.	"In online classes, I feel disconnected from my peers and teachers. Building meaningful connections is challenging, and I miss our social interactions in physical classrooms."
	Lack of Clear Goals	Challenges related to unclear learning objectives and goals, which diminish students' motivation to strive for improvement	"I wish there were clearer learning objectives for each online session. Without well-defined goals, I find it challenging to track my progress and know what I should focus on improving."
Reduced Engagement:	Access Barriers	Challenges related to limited access to online learning platforms and materials, reducing students' ability to engage fully in the learning process.	"Limited access to the internet and devices is a significant barrier for me. I miss out on important online resources and activities, which negatively impacts my language learning experience."
	Interaction Challenges	Challenges that hinder effective interaction with teachers and peers during online classes, leading to reduced active engagement.	"Online interactions with teachers and peers are less engaging compared to face-to-face classes. It's hard to have meaningful discussions and get immediate feedback on my language skills."
	Passive Learning Environment	Challenges that contribute to a predominantly passive learning experience,	"Online learning feels more passive as I spend a lot of time listening to pre-recorded lectures. I miss the dynamic classroom environment that

		reducing students' active involvement in the learning activities	encouraged active participation and learning through discussions."
Compromised Learning Outcomes:	Knowledge Retention Challenges	Challenges that hinder students' ability to retain and apply the knowledge gained during online learning sessions	"I sometimes struggle to retain the information I learn in online classes. Without regular reinforcement and practice, it's hard to remember and apply what I've learned."
	Limited Progress Monitoring	Challenges related to inadequate progress tracking and feedback, affect students' ability to assess their learning growth.	"I wish there were more frequent assessments and feedback on my progress. Without regular monitoring, it's hard to identify my strengths and weaknesses in language learning."
	Impaired Skill Integration	Challenges that impede the integration of language skills (e.g., speaking, listening, reading, writing), lead to compromised language proficiency outcomes.	"I find integrating different language skills (reading, writing, speaking, listening) in the online learning format challenging. It is harder to see how they connect and complement each other."
Feelings of Isolation:	Social Disconnection	Challenges that contribute to students feeling socially isolated and detached from their peers and teachers in the virtual learning environment.	"Online learning can be isolating, and I miss the social interactions and camaraderie we had in physical classrooms. It is challenging to feel connected to the learning community."
	Lack of Support Networks	Challenges related to the absence of strong support networks and communities that foster a sense of belonging.	"I miss the support and encouragement from classmates and teachers in traditional classrooms. The absence of strong support networks makes staying motivated and committed to language learning challenging."
	Emotional Strain	Challenges that result in emotional strain and feelings of loneliness affect students' overall well-being and engagement in learning activities.	"Online learning can be emotionally draining, especially with the challenges we face. It affects my motivation and makes staying positive and engaged in language learning harder."

The main themes that emerged from the thematic analysis include: Hindered Language Development, Decreased Motivation, Reduced Engagement, Compromised Learning Outcomes, and Feelings of Isolation. Under each theme, several subthemes were identified, providing a more detailed understanding of the challenges faced by students. Under Hindered Language Development, students mentioned Limited Language Practice, where they felt the lack of opportunities to practice speaking and writing skills in interactive activities. They also highlighted Insufficient Language Exposure, referring to the limited exposure to authentic language use in the online environment. Additionally, Inadequate Speaking Opportunities were reported, where students expressed their challenges in actively participating in speaking activities. Language proficiency is a cornerstone of language learning, and the challenges students encounter can significantly influence their language mastery. Miralpei and Muñoz (2018) emphasized that language proficiency involves more than grammar and vocabulary. It encompasses effective communication and comprehension. In the context of online learning, Dhawan (2020) verified that challenges such as limited personalized attention and lack of face-to-face interaction could hinder students' opportunities for interactive language practice and communication, potentially impacting their ability to achieve higher proficiency levels.

Decreased motivation was another significant theme, with students sharing their Technological Frustrations due to technical issues disrupting online classes. They also mentioned feeling disconnected from the Learning Environment, and missing their social interactions and connections in physical classrooms. Moreover, the Lack of Clear Goals affected their motivation as students felt unsure about learning objectives and progress tracking. Reduced Engagement was evident in the experiences of students facing Access Barriers, hindering their full engagement in online learning due to limited access to resources. Interaction Challenges emerged from difficulties in effective communication with teachers and peers during virtual classes, leading to reduced active involvement. Passive Learning Environment indicated the challenge of passivity in online classes with more pre-recorded lectures and less active participation.

Moreover, Sánchez-Cruzado et al. (2021) supported that the challenge of digital literacy can be a barrier to language proficiency. Language learning in an online environment often involves navigating various digital tools and resources. Students lacking the necessary digital literacy skills

Compromised Learning Outcomes were reported as students faced Knowledge Retention Challenges, where they found it hard to retain information without regular reinforcement. Limited Progress Monitoring was another subtheme, with students desiring more frequent assessments and feedback. Impaired Skill Integration represented challenges in integrating different language skills effectively. Feelings of Isolation emerged as a significant emotional impact. Students reported Social Disconnection due to online learning, leading to feelings of loneliness and detachment from peers and teachers. The lack of Support Networks was highlighted, emphasizing the importance of a supportive learning community. Emotional strain indicated that online learning challenges affected students' overall well-being and engagement in language learning. The thematic analysis provided valuable insights into students' multifaceted challenges in Indonesia's online student-centred English language learning context. These findings can help educators and policymakers develop targeted strategies to address specific areas of concern, ultimately enhancing the language learning experience for students and fostering a more supportive and engaging online learning environment. Beyond language proficiency, Chung et al. (2020) demonstrated that challenges can also significantly affect students' overall learning experience. Engagement, motivation, and satisfaction are essential to effective learning (Lee et al., 2019). Challenges such as technical issues, home distractions, and limited spoken practice and collaboration opportunities could lead to decreased engagement and motivation (Joo et al., 2018). Students may feel frustrated by technical barriers, and the lack of social interaction might result in feelings of isolation, diminishing their overall learning experience (Erlangga (2022).

Research Question 3: What are the most effective methods to improve digital literacy among students to enhance their active participation and learning outcomes?

Table 5 Multiple Regression Analysis of Digital Literacy Improvement, Active Participation, and Learning Outcomes with Additional Control Variables

Predictor Variables	Beta Coefficient	Standard Error	t-value	p-value (Significance Level)
Digital Literacy Improvement	0.432	0.078	5.541	< 0.001
Active Participation	0.315	0.065	4.846	< 0.001
Control Variable 1 (Age)	0.086	0.034	2.535	0.012
Control Variable 2 (Gender)	0.019	0.052	0.362	0.718
Control Variable 3 (Education Level)	0.502	0.092	5.456	< 0.001
Control Variable 4 (English Language Proficiency)	0.398	0.075	5.303	< 0.001
Control Variable 5 (Technology Accessibility)	0.261	0.042	6.190	< 0.001
Constant	1.278	0.211	6.063	< 0.001

The table presents the results of the multiple regression analysis that assesses the relationship between digital literacy improvement, active participation, and learning outcomes while controlling for additional variables, such as education level, English language proficiency, and technology accessibility. The multiple regression analysis confirms that digital literacy improvement and active participation significantly contribute to students' learning outcomes in the online learning environment. When controlling for additional variables, such as education level, English language proficiency, and technology accessibility, the positive relationships between digital literacy improvement, active participation, and learning outcomes remain significant. These findings emphasize the importance of incorporating targeted digital literacy interventions and fostering active participation while considering individual characteristics and access to resources to enhance student's educational experiences in the digital age.

The results of the multiple regression analysis provide valuable insights into the factors that influence students' learning outcomes in the online learning environment. Digital literacy improvement and active participation (Digital Literacy Improvement (Beta = 0.432, $p < 0.001$) were found to be significant predictors of better academic performance and overall learning achievements. The analysis revealed that students who experienced greater improvement in digital literacy demonstrated higher academic success with Active Participation (Beta = 0.315, $p < 0.001$). Digital literacy refers to the ability to use digital tools and technologies effectively, and when students enhance their digital skills, they become better equipped to navigate online learning platforms, access resources, and engage in various learning activities. Age has a significant positive association with learning outcomes because Control Variable 1 (Age) (Beta = 0.086, $p = 0.012$). This finding highlights the importance of incorporating digital literacy interventions and training to empower students in the digital age. Bejaković and Mrnjavac (2020) outlined that digital literacy encompasses a range of skills, from basic computer proficiency to critical evaluation of online information. Various approaches have been proposed to enhance

digital literacy among students. Falloon (2020) found that hands-on training and workshops that teach practical skills, such as using software applications, searching for reliable information, and managing online resources, have shown positive outcomes. Toff and Nielsen (2018) confirmed that these interventions help students feel more confident in navigating digital platforms and empower them to engage more actively in online learning environments.

Active participation in online learning activities was strongly associated with improved learning outcomes. Students who actively engaged in virtual discussions, collaborative assignments, and other interactive tasks showed better academic performance. Active participation fosters deeper understanding and engagement with course content, allowing students to apply their knowledge effectively. Constant (Beta = 1.278, $p < 0.001$) of the constant term represents the intercept of the regression equation. This emphasizes the significance of creating interactive and engaging online learning environments that encourage student involvement. The analysis also considered several control variables: age, gender, education level, English language proficiency, and technology accessibility. Older students were found to have slightly better learning outcomes than younger students, indicating that age can influence academic success. However, gender did not significantly affect learning outcomes, suggesting that both male and female students can perform equally well in online learning environments. Additionally, education level was a crucial factor affecting learning outcomes. Students with higher education levels tended to achieve better academic performance, underscoring the importance of continuous education and advanced learning opportunities for overall success. Integrating digital literacy instruction into the curriculum is another effective approach. Kuşay, Y. (2019) emphasized the importance of "participatory culture," where students are not just consumers but also creators of digital content. Educators foster students' digital literacy skills by incorporating digital projects, multimedia assignments, and collaborative online activities into coursework while promoting active engagement and meaningful learning experiences.

Table 6 Pearson Correlation Analysis of Digital Literacy Improvement, Active Participation, Frequency of Interaction Peer and Collaboration Social Interaction in Online Learning

		active participation	learning outcomes	Frequency of Interaction	Peer Collaboration	Social Interaction
active participation	Pearson Correlation	1.000	0.543	0.421	0.376	0.289
	Sig. (2-tailed)	< 0.001		< 0.001	< 0.001	< 0.001
	N	300	300	300	300	300
learning outcomes	Pearson Correlation	0.543	1.000	0.386	0.301	0.215
	Sig. (2-tailed)	< 0.001		< 0.001	< 0.001	< 0.001
	N	300	300	300	300	300
Frequency of Interaction	Pearson Correlation	0.421	0.386	1.000	0.511	0.420
	Sig. (2-tailed)	< 0.001		< 0.001	< 0.001	< 0.001
	N	300	300	300	300	300
Peer Collaboration	Pearson Correlation	0.376	0.301	0.511	1.000	0.612
	Sig. (2-tailed)	< 0.001		< 0.001	< 0.001	< 0.001
	N	300	300	300	300	300
Social Interaction	Pearson Correlation	0.289	0.215	0.420	0.612	1.000
	Sig. (2-tailed)	< 0.001		< 0.001	< 0.001	< 0.001
	N	300	300	300	300	300

The results of a Pearson Correlation Analysis explore the relationships between Digital Literacy Improvement, Active Participation, Frequency of Interaction, Peer Collaboration, and Social Interaction in online learning. The correlation coefficients indicate the strength and direction of the relationships, while the p-values assess the statistical significance of these relationships. Each cell in the table shows a correlation coefficient value, representing how closely two variables are related. A correlation coefficient ranges from -1 to 1. A positive value (closer to 1) indicates a positive relationship, where higher values of one variable tend to correspond with higher values of the other. Conversely, a negative value (closer to -1) indicates a negative relationship, where higher values of one variable are associated with lower values of the other. Furthermore, adopting a critical digital literacy perspective is crucial. This approach focuses on equipping students to critically evaluate online information, discern credible sources, and understand potential biases (Polizzi, G. (2020). Research by Bowyer and Kahne (2020) highlighted the significance of teaching students to analyze

the credibility of digital content and engage in respectful online discourse. These skills improve digital literacy and contribute to informed participation and responsible online behavior.

The significance level (p-value) assesses whether the observed correlation is statistically significant or likely due to chance. A p-value less than 0.05 (often denoted as " < 0.001 " in this table) suggests that the correlation is statistically significant. This means that the observed relationship is unlikely to occur by random chance and might reflect a meaningful connection between the variables. The "N" values represent the sample size used for each correlation analysis. It indicates the number of data points available for the analysis. A larger sample size generally contributes to more reliable and robust results. For instance, looking at the specific values in the table, the correlation coefficient between Active Participation and Learning Outcomes is 0.543. This positive value suggests a moderate positive relationship between these two variables. As students' active participation increases, their learning outcomes tend to improve. The correlation coefficients between other pairs of variables, such as Frequency of Interaction and Peer Collaboration, or Social Interaction and Peer Collaboration, show positive relationships as well. The p-values being less than 0.001 indicate that these relationships are statistically significant, lending weight to the observed connections. However, challenges in improving digital literacy exist. Some students might resist technology integration, viewing it as an additional burden or lacking relevance to their field of study (Emre (2019)). Additionally, Assunção Flores and Gago (2020) stated that educators may face constraints in terms of time and resources to provide comprehensive digital literacy instruction. Regarding the impact on active participation and learning outcomes, improved digital literacy has been linked to increased engagement and enhanced learning. Research by Ding et al. (2018) suggests that students with higher digital literacy are likelier to engage in online discussions, collaborate with peers, and take ownership of their learning. These active participation behaviours are associated with a deeper understanding and better retention of course content.

Research Question 4: How does the level of digital literacy among students impact their readiness to engage in student-centered English language learning through online platforms?

Table 7 Thematic Analysis Result of the Impact of Digital Literacy on Readiness for Student-Centered English Language Learning through Online Platforms

Theme	Subtheme	Definition	Sample Quotation
Digital Literacy and Readiness	Digital Proficiency	The level of technical skills and familiarity with digital tools and platforms required for online learning.	"I feel confident in using online platforms, which makes me more prepared for English learning."
	Access to Technology	Availability and ease of access to digital devices and stable internet connections.	"Limited access to devices and internet affects my readiness for online English language learning."
Challenges in Online Engagement	Navigational Challenges	Difficulties in navigating online platforms and tools, impacting engagement.	"I find it hard to navigate the online platform, affecting my engagement in English lessons."
	Technical Barriers	Technical issues leading to frustration and hindrance in active participation.	"Technical glitches often make me lose focus during online English classes."
Benefits of Digital Literacy	Enhanced Interaction	Improved interaction with peers and instructors due to digital proficiency.	"Being digitally literate helps me actively participate in online English discussions."
	Flexibility and Autonomy	The ability to navigate online platforms independently and manage learning schedules.	"I can adapt my study schedule better with digital skills, making me more prepared for online English learning."
Readiness for Student-Centered Learning	Critical Thinking and Research Abilities	Digital literacy aids in conducting research and critical thinking for assignments.	"I can research and analyze English materials effectively online."
	Adaptability to Online Resources	The capacity to effectively use online resources for language learning.	"Digital literacy enables me to utilize online resources for improving my English language skills."
Challenges in Language Learning	Language Barriers	Limited digital literacy exacerbating language comprehension challenges.	"If I don't understand the digital resources, it affects my English language learning negatively."
	Isolation and	Feelings of isolation due to lack of	"Not being able to navigate online

	Motivation	digital proficiency impacting motivation.	tools affects my motivation to learn English."
Strategies for Improvement	Digital Training and Support	Formal training and support are needed to enhance digital literacy for better engagement.	"Regular workshops on digital tools can enhance my readiness for online English learning."
	Collaborative Learning Communities	Leveraging peer collaboration for improving digital skills and readiness.	"Group discussions on using online platforms can boost our collective readiness for English learning."

The thematic analysis focuses on understanding the relationship between digital literacy and its impact on Indonesian students' readiness to engage in student-centered English language learning through online platforms. The analysis identifies several key themes and subthemes that illuminate the nuanced dynamics. The theme "Digital Literacy and Readiness" delves into the foundational aspect of digital proficiency required for effective online learning. Subthemes like "Digital Proficiency" and "Access to Technology" capture the technical skills necessary for navigating digital tools and platforms and the availability of devices and stable internet connections. Participants expressed sentiments like feeling confident in using online platforms and recognizing the impact of limited access to devices and the internet on their preparedness for English language learning. Studies have shown that students with higher levels of digital literacy are more likely to actively participate in online discussions, collaborate with peers on projects, and utilize multimedia resources to enhance their learning (Blau et al. (2020). These behaviours are fundamental to student-centered learning, where students take ownership of their learning process and engage in meaningful interactions with content and peers.

The challenges faced during online engagement emerge as another significant theme. "Navigational Challenges" pertains to difficulties students encounter in manoeuvring through online platforms, impacting their overall engagement. "Technical Barriers" reflect the frustrations stemming from technical issues that hinder active participation. Participants highlighted experiences of losing focus due to technical glitches during online English classes, affecting their level of involvement. On the positive side, the theme "Benefits of Digital Literacy" highlights the advantages of digital proficiency. "Enhanced Interaction" emphasizes improved engagement with peers and instructors due to a higher level of digital literacy. "Flexibility and Autonomy" underscore the ability to navigate online platforms independently, leading to better management of learning schedules. Participants described how their digital skills enabled them to adapt their study routines, contributing to a higher level of readiness for online English learning. On the contrary, students with lower digital literacy might face barriers when participating in online learning activities. They might struggle to navigate the virtual learning environment, access course materials, and effectively communicate their ideas. Bergdahl (2022) explored that the condition can lead to frustration and disengagement, hindering their readiness for student-centered learning.

"Readiness for Student-Centered Learning" addresses the impact of digital literacy on students' aptitude for student-centred approaches. "Critical Thinking and Research Abilities" captures how digital literacy supports effective research and critical thinking for assignments. "Adaptability to Online Resources" indicates the capacity to utilize online resources for language learning effectively. Participants acknowledged that digital literacy empowered them to research and analyze English materials more efficiently, increasing readiness. The theme "Challenges in Language Learning" uncovers obstacles linked to digital literacy. "Language Barriers" highlight how limited digital proficiency exacerbates comprehension difficulties. Participants shared that an inadequate understanding of digital resources negatively affected their English language learning experience. "Isolation and Motivation" delve into how feelings of isolation due to a lack of digital skills impact motivation. Participants noted that struggles with online tools affected their enthusiasm for learning English. Finally, the theme "Strategies for Improvement" offers insights into avenues to enhance digital literacy and preparedness. "Digital Training and Support" underscores the importance of formal training and support for enhancing digital proficiency. "Collaborative Learning Communities" suggests leveraging peer collaboration to improve digital skills and readiness collectively. Participants recognized the value of workshops focusing on digital tools and the potential of group discussions to boost their overall preparedness for online English learning. Furthermore, the level of digital literacy impacts students' ability to evaluate and discern the quality of online information critically (Spires et al. (2019). In student-centred learning, students are expected to independently explore resources and make informed decisions about the credibility and relevance of content. Coiro (2021) found that students with higher digital literacy are better equipped to assess the authenticity of information and contribute meaningfully to discussions and assignments. However, disparities in digital literacy levels might exist among students. Factors such as socioeconomic background, prior exposure to technology, and access to resources can influence students' readiness for online learning. Hence, educators and institutions must consider these disparities and provide support to bridge the digital divide and ensure equitable access to student-centred online learning experiences.

4. Conclusion

According to the meticulous analysis and insightful exploration, this research has revealed the diverse hurdles Indonesian students face as they engage with online platforms for language learning. The findings underscore the importance of acknowledging technical issues, limited personalization, digital literacy gaps, and language barriers and emphasize the essential role of personalized attention and effective time management in enhancing the online learning experience. The study's synthesis of critical points reinforces the intricate relationship between digital literacy and student engagement, highlighting the imperative for tailored interventions to bridge this gap. Furthermore, the research underscores the significance of human-centric elements, indicating that while technology is a powerful tool, it is most effective when aligned with personalized attention and support. As the educational landscape continues to evolve in the digital age, these insights offer valuable guidance for educators, institutions, and policymakers seeking to cultivate an environment that empowers students to thrive in student-centered, online language learning platforms. Nonetheless, the study also points to remaining questions concerning the seamless integration of personalized attention in virtual contexts and innovative strategies for addressing the digital literacy divide among diverse student cohorts. This research thus serves as a cornerstone, paving the way for future endeavours that aim to refine and enrich the online educational experience, fostering a more prepared and engaged cohort of learners in the modern era.

5. References

- Ali, S. S. (2019). Problem based learning: A student-centered approach. *English Language Teaching*, 12(5), 73–78.
- Assunção Flores, M., & Gago, M. (2020). Teacher education in times of COVID-19 pandemic in Portugal: national, institutional and pedagogical responses. *Journal of Education for Teaching*, 46(4), 507–516.
- Bergdahl, N. (2022). Engagement and disengagement in online learning. *Computers & Education*, 188, 104561.
- Blau, I., Shamir-Inbal, T., & Avdiel, O. (2020). How does the pedagogical design of a technology-enhanced collaborative academic course promote digital literacies, self-regulation, and perceived learning of students? *The Internet and Higher Education*, 45, 100722.
- Bowyer, B., & Kahne, J. (2020). The digital dimensions of civic education: Assessing the effects of learning opportunities. *Journal of Applied Developmental Psychology*, 69, 101162.
- Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online learning readiness among university students in Malaysia amidst COVID-19. *Asian Journal of University Education*, 16(2), 45–58.
- Coiro, J. (2021). Toward a multifaceted heuristic of digital reading to inform assessment, research, practice, and policy. *Reading Research Quarterly*, 56(1), 9–31.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5–22.
- Ding, L., Er, E., & Orey, M. (2018). An exploratory study of student engagement in gamified online discussions. *Computers & Education*, 120, 213–226.
- Emaliana, I. (2017). Teacher-centered or student-centered learning approach to promote learning? *Jurnal Sosial Humaniora (JSH)*, 10(2), 59–70.
- Emre, D. (2019). Prospective teachers' perceptions of barriers to technology integration in education. *Contemporary Educational Technology*, 10(4), 381–398.
- Erlangga, D. T. (2022). Student Problems in Online Learning: Solutions to Keep Education Going on. *Journal of English Language Teaching and Learning*, 3(1), 21–26.
- Falloon, G. (2020). From digital literacy to digital competence: the teacher digital competency (TDC) framework. *Educational Technology Research and Development*, 68, 2449–2472.
- Gasparyan, A. Y., Nurmashev, B., Yessirkepov, M., Endovitskiy, D. A., Voronov, A. A., & Kitay, G. D. (2017). Researcher and author profiles: opportunities, advantages, and limitations. *Journal of Korean Medical Science*, 32(11), 1749–1756.
- Hadi, A. (2018). Bridging Indonesia's digital divide: Rural-urban linkages. *Jurnal Ilmu Sosial Dan Ilmu Politik*, 22(1), 17–33.
- Hoidn, S., & Reusser, K. (2020). Foundations of student-centered learning and teaching. In *The Routledge International Handbook of Student-Centered Learning and Teaching in Higher Education* (pp. 17–46). Routledge.
- Irawan, A. W., Dwisona, D., & Lestari, M. (2020). Psychological impacts of students on online learning during the pandemic COVID-19. *KONSELI: Jurnal Bimbingan Dan Konseling (E-Journal)*, 7(1), 53–60.
- Jacobs, G. M., & Lie, A. (2022). Toward Student-Centered Teacher Education Programs. *Journal of International and Comparative Education (JICE)*, 93–105.
- Lee, J., Song, H.-D., & Hong, A. J. (2019). Exploring factors, and indicators for measuring students' sustainable engagement in e-learning. *Sustainability*, 11(4), 985.
- Li, L., & Guo, R. (2015). A student-centered guest lecturing: A constructivism approach to promote student engagement. *Journal of Instructional Pedagogies*, 15.
- Miralpeix, I., & Muñoz, C. (2018). Receptive vocabulary size and its relationship to EFL language skills. *International Review of Applied Linguistics in Language Teaching*, 56(1), 1–24.

- Müller, C., & Mildenerger, T. (2021). Facilitating flexible learning by replacing classroom time with an online learning environment: A systematic review of blended learning in higher education. *Educational Research Review*, 34, 100394.
- Neumeyer, X., Santos, S. C., & Morris, M. H. (2020). Overcoming barriers to technology adoption when fostering entrepreneurship among the poor: The role of technology and digital literacy. *IEEE Transactions on Engineering Management*, 68(6), 1605–1618.
- Özdal, R., Yükselir, C., & Akarsu, O. (2021). Foreign language learners' perceptions and preferences of synchronous and asynchronous online language learning during COVID-19 pandemic. *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 25(2), 699–715.
- Peyrefitte, M., & Lazar, G. (2018). Student-centered pedagogy and real-world research: Using documents as sources of data in teaching social science skills and methods. *Teaching Sociology*, 46(1), 62–74.
- Polizzi, G. (2020). Digital literacy and the national curriculum for England: Learning from how the experts engage with and evaluate online content. *Computers & Education*, 152, 103859.
- Prawiyogi, A. G., Aini, Q., Santoso, N. P. L., Lutfiani, N., & Juniar, H. L. J. (2021). Blockchain education concept 4.0: Student-centered ilearning blockchain framework. *JTP-Jurnal Teknologi Pendidikan*, 23(2), 129–145.
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2021). Balancing technology, pedagogy and the new normal: Post-pandemic challenges for higher education. *Postdigital Science and Education*, 3(3), 715–742.
- Rege Colet, N. M. (2017). From content-centred to learning-centred approaches: shifting educational paradigm in higher education. *Journal of Educational Administration and History*, 49(1), 72–86.
- Sánchez-Cruzado, C., Santiago Campión, R., & Sánchez-Compañía, M. T. (2021). Teacher digital literacy: The indisputable challenge after COVID-19. *Sustainability*, 13(4), 1858.
- Soubra, L., Al-Ghouti, M. A., Abu-Dieyh, M., Crovella, S., & Abou-Saleh, H. (2022). Impacts on student learning and skills and implementation challenges of two student-centered learning methods applied in online education. *Sustainability*, 14(15), 9625.
- Spires, H. A., Paul, C. M., & Kerkhoff, S. N. (2019). Digital literacy for the 21st century. In *Advanced methodologies and technologies in library science, information management, and scholarly inquiry* (pp. 12–21). IGI Global.
- Tamah, S. M., Triwidayati, K. R., & Utami, T. S. D. (2020). Secondary school language teachers' online learning engagement during the COVID-19 pandemic in Indonesia. *Journal of Information Technology Education: Research*, 19, 803–832.
- Tewathia, N., Kamath, A., & Ilavarasan, P. V. (2020). Social inequalities, fundamental inequities, and recurring of the digital divide: Insights from India. *Technology in Society*, 61, 101251.
- Toff, B., & Nielsen, R. K. (2018). "I just google it": Folk theories of distributed discovery. *Journal of Communication*, 68(3), 636–657.