



Exploring the Influence of Students' Anxiety on English Language Learning in Online Integrated Instruction

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ABSTRACT

This research explores the influence of online integrated learning on students' anxiety within the English Language Education Program at Muhammadiyah University of East Kalimantan (UMKT). The study investigates the impact of online integrated learning in the English General Course on students' anxiety levels. It examines significant differences in anxiety levels between students actively using online platforms and those who do not. The sample consisted of 117 freshmen, with data collected via questionnaires assessing comfort with technology, perceptions of its effectiveness, and its impact on anxiety levels. Statistical analyses, including descriptive statistics, the One-Sample Kolmogorov-Smirnov Test, ANOVA, and Bonferroni multiple comparisons, were employed to provide a comprehensive understanding of the findings. Key results indicate a mean anxiety score of 41.55 and a mean achievement score of 78.21, reflecting moderate anxiety and relatively high academic performance. The One-Sample Kolmogorov-Smirnov Test confirmed the normal distribution of the data ($p > 0.05$), justifying the use of parametric methods. ANOVA results showed significant differences in anxiety levels and English scores based on online integrated learning ($F = 166.159$, $p < 0.001$). Bonferroni multiple comparisons revealed that lower anxiety was associated with higher English scores, with significant mean differences observed between low, medium, and high anxiety groups ($p < 0.001$). These findings suggest that online integrated learning significantly impacts students' anxiety levels, which in turn affects their academic performance. The study provides valuable insights for educators and policymakers on the importance of creating supportive and anxiety-reducing learning environments in technology-enhanced settings

Keywords: *Online Integrated Learning, Students' Anxiety, Language Education*

INTRODUCTION

Technology can help reduce student anxiety by offering flexible, easily accessible, and engaging learning options. However, it can also intensify anxiety if students encounter technological issues or feel overwhelmed by the demands of using new tools. The relationship between

online integrated learning and learning anxiety is complex and multifaceted. While technology can provide adaptable and engaging educational materials that reduce anxiety, it can also increase anxiety when technical problems arise, or the use of new tools becomes burdensome. There is still more research needed on the

relationship between learning anxiety and technological integration. Many studies focus on specific aspects of technology use or examine anxiety in particular contexts. For instance, Kolski and Weible (2018) focus exclusively on virtual proctoring, ignoring offline proctoring, while Reyaz Ahmad Bhat (2023) does not offer a comprehensive classification of the various effects of online integrated learning on students. Furthermore, according to Alizamar et al. (2017), our understanding of student anxiety is always changing and is influenced by thorough evaluations of situational and individual factors. More investigation into the anxiety levels of various student groups and circumstances is required to close these disparities, especially with regard to how well students function in technologically assisted learning environments.

No one doubts that technology has revolutionized many aspects of human life. The impossible becomes possible, and people's quality of life can improve drastically. Technology impacts every aspect of human life, including educational aspects. Technology is widely recognized as a valuable tool for improving the learning process in the digital era (Rintaningrum, 2023). In addition, technology helps students gain knowledge about the principles that govern formal and informal language (Clark and Dugdale, 2009). Technology can also foster autonomy, which improves students' performance in EFL classes (Han, 2021). Virtual classrooms, online exams, and interactive learning courses have become

commonplace in modern learning experience. According to Daud et al. (2019), this virtual class exercise might be seen as a method for teachers to use blended learning. In English Language Teaching (ELT), 'blended learning' typically refers to integrating traditional classroom instruction with technology-based computer activities and online and offline materials. Therefore, it would be advantageous for educators to incorporate a virtual classroom into their conventional teaching methods throughout the academic year.

Online learning has grown rapidly due to social restrictions and school closures. Since COVID-19, many educational institutions have adopted online learning platforms to ensure the continuity of the learning process. Some examples of popular online learning platforms include Google Classroom, Zoom, and Moodle. As an example of the implementation of technology in higher education, Al-Rahmi et al. (2015) identify factors that contribute to students' academic experience. In the context of effectiveness evaluation, Prakash (2022) provides an in-depth analysis of the extent to which online learning can achieve learning goals in higher education. Studies on the implementation of online learning in Indonesia have been observed previously, especially in online learning platforms. The online learning process utilizes several instructional learning tools that cover online multimedia (Sari and Oktaviani, 2021).

Since the emergence of the pandemic in 2020, many platforms have been developed within educational institutions to adapt to online learning, one of them is UMKT, a private university in East Kalimantan which requires first-semester students from all majors to take English Language as a general course by utilizing an online learning platform. Open Learning (OPL) is an official learning platform used in UMKT. Established in 2012, Open Learning (OPL) has evolved into one of the most innovative and audacious learning platforms globally. The media is used for delivering learning material, taking exams and tests, and even as a medium for communication between lecturers and students.

Students' anxiety is a significant psychological issue influenced by academic pressure, fear of failure, and exam uncertainty. It affects academic performance, mental well-being, and motivation to learn. Research conducted by Chakraborty (2023) indicates that anxiety is a widespread issue among undergraduate students, particularly around examinations. According to certain theories, anxiety can spiral out of control when someone fears that they will not live up to their own or other people's expectations. This can result in low motivation and more negative self-talk. The emotional state can affect a student's cognitive function, ability to concentrate, and overall state of being, which may, in turn affect their academic performance and the learning process. It is important to remember that each individual

has a different tolerance and response to pressure, so the above factors may interact in complex ways. Efforts to identify and address these factors can help manage and reduce students' anxiety levels (Purba et al., 2021)

Over the passage of time, numerous researches have emerged that explores and discusses online integrated learning and its implications on students' anxiety. For example, research by Kolski and Weible (2018) focused more on the relationship between student behavior during online exams and test anxiety in the context of virtual proctoring only, where the context of offline proctoring was not explained. Other research, by Reyaz Ahmad Bhat (2023), although the journal mentions the impact of online integrated learning on students' learning outcomes, there has been no in-depth analysis of categories regarding the classification of online integrated learning which can have a different impact on each student. Previous studies tend not to discuss all aspects in detail regarding the influence of technology on students' anxiety itself. The understanding of students' anxiety has evolved throughout time, driven by a comprehensive assessment of individual and situational variables (Alizamar et al., 2017).

The limitations mentioned above provide a significant motivation to design new research with a focus on exploring the levels of anxiety in three different groups based on students' final examination results, namely: (a) high, (b) medium, and (c) low. Centered on quantitative

data, these categories are established based on students' final examination results during online learning. The primary objective of this study is to achieve a more comprehensive understanding of the integration technology in language learning and its influence on students' anxiety levels in the context of higher education. The aim of this research is to explore whether the integration of technology in language learning correlates with students' anxiety levels. Based on this background, this research aims to answer key questions:

1. Is there a significant difference between anxiety levels and students' English learning score in online Integrated Instruction?
2. What is the influence of students' anxiety level on students' English learning score in online Integrated Instruction?

LITERATURE REVIEW

Online Integrated Learning in the Educational Context

Online integrated learning refers to the incorporation of technology tools and resources into the teaching and learning process in educational settings. It can take various forms, such as using interactive whiteboards, educational software, online resources, and mobile devices in the classroom. The effective use of new technologies has been found to improve learners' language learning skills Selvanathan et al., (2023). Students now have the opportunity to take online courses, engage with interactive learning modules, and participate in virtual discussion, thereby

contributing to a more adaptable and personalized learning experience (Hartanto, 2016). It can also involve the use of learning management systems, virtual reality, augmented reality, and other emerging technologies to create immersive and interactive learning environments.

However, successful online integrated learning requires meticulous planning, professional development for teachers, and sustained support to ensure effective implementation (Mdhlalose and Mlambo, 2023). Teachers should act as facilitators and guides in the learning process for their students, supported by technology-driven changes. Technical support and assistance must be provided to facilitate online integrated learning in the classroom (Ahmadi, 2018). Barriers to online integrated learning encompass resources, knowledge and skills, intuitions, attitudes and beliefs, assessment, and subject-specific culture. This empowers them to explore and improve their creative skills, enabling the creation of multimedia projects, presentations and educational content. In conclusion by utilizing technology wisely, education can become more inclusive, innovative, and in line with the demands of the times. The integration of technology in learning is essential to create an adaptive and relevant learning environment (Handayuni et al., 2020).

Technological Influences: Shaping on Students' Learning Experience

The research findings indicate that students in the Kingdom of Saudi Arabia (KSA) were satisfied with online learning platforms and experiences during the COVID-19 pandemic. The population in the study expressed positive attitudes towards experiential learning and reflected on their learning through past knowledge of online platforms, such as Google Meet, Google Classroom, and LMS (Moodle), for lecture delivery, course management and assessments contributed to students' satisfaction. The availability of training workshops and online technical support also enhanced students' satisfaction with online learning experiences (Almusharraf and Khahro, 2020). The use of technology, specifically Web 2.0 tools, in an interdisciplinary setting can effectively develop information technology literacy skills and enhance student engagement and learning outcomes. It also aligns with the preferences and experiences of next-generation learners (Williams, 2003).

In addition to providing evidence that informs best practice in learning and teaching to accommodate the evolving learning styles of students, it is crucial to document students' experiences in technology-enabled spaces so that university communities can be informed when developing new spaces (Verdonck et al. 2019). Various visual elements, learning games, and innovative approaches can spark student interest and engagement, creating a more positive learning atmosphere. According to

Sarnoto et al. (2023) the use of technology in an educational context can significantly impact students' learning experiences, including: (a) Online integrated learning in education offers students fast access to information enhanced time and space flexibility. (b) Interactive learning experiences through apps and software, as well as improved collaboration and communication. (c) real-time progress monitoring and evaluation through the Learning Management System. (d) Personalized learning through adaptive learning application. (e) Game-based learning elements, and support for distance learning through online platforms and video conferencing. (f) Digital portfolio development allows students to showcase their projects and achievements. Therefore, a thoughtful approach to integrating technology in learning needs to be adopted, ensuring that the positive impacts outweigh the potential risks and providing a holistic and rewarding learning experience for students.

Students' Anxiety in the Context of Education

Students' anxiety within the educational context has emerged as a subject of considerable scholarly interest. An exploratory study assessed college students' stress levels of using technology, indicating that technology use in the college classroom can lead to negative feelings among students. Technology use in education can contribute to students' anxiety and stress levels. It is important for lecturers to be mindful of students' needs and consider the impact of technology on their well-being (Zhang et al., 2014).

The seminal work of Johnson (2023) has laid a foundational understanding by identifying key contributors to students' anxiety in educational settings. Their research highlighted the pervasive influence of academic pressures, societal expectations, and the fear of academic failures as significant sources of anxiety among students. Examining the social dynamics within educational environments, Afzal, et al. (2023) emphasized the pivotal role of teacher-student relationships in influencing students' anxiety levels. Positive and supportive interactions with teachers were identified as crucial factors in alleviating anxiety and fostering a more conducive learning environment. Building upon these studies, Weda and Sakti (2018) explored the intricate relationship between anxiety and academic performance. Their findings suggested a reciprocal connection wherein high levels of anxiety could adversely affect academic achievement, thereby contributing to a cyclical pattern.

In conclusion, research indicates that technology use in college classrooms may contribute to students' anxiety and stress. Factors such as academic pressures, societal expectations, and teacher-student relationships also play significant roles in shaping anxiety levels. Positive interactions with teachers are crucial in alleviating anxiety and fostering a conducive learning environment. Moreover, a reciprocal connection between anxiety and academic performance suggests a need for a

holistic approach to address students' anxiety in an educational setting.

Exploring Factors Behind Students' Anxiety

Anxiety is a basic human emotion that consists of fear and uncertainty, and usually it occurs when an individual believes that the event is a threat to self or self-esteem and is not the only student with academic anxiety (Ajmal and Ahmad, 2019). Students experience problems during their studies and feel anxious when taking exams or making significant life decisions. Ordinary students with learning disabilities may also suffer from anxiety disorders. Katagami and Tsuchiya (2016) studied how perfectionism and achievement motivation affect gifted students. Perfectionist students may undergo academic anxiety because of unrealistic expectations set by themselves or others.

According to Budiman, et al., (2018), Experts identify three main factors that can cause anxiety during the learning process: fear of negative judgment, test anxiety, and communication anxiety. This study shows that students do not worry about being judged negatively by peers and lecturers. Instead, their concern lies primarily with the outcomes of their tests. Additionally, they experience anxiety related to communication, such as the fear that their ability to express their opinions may fall short of expectations. These factors can interact and vary across different educational settings and individual student experiences, highlighting the importance of addressing anxiety in learning environments to support student well-being and

academic success (Siritheeratharadol et al., 2023).

It is important to note that the prevalence and determinants of anxiety may vary across different countries and disciplines, and further research is needed to fully understand the factors that contribute to anxiety among students (Samreen et al., 2020). Lack of mastery of the concept of learning material. Not understanding the concept of the material being tested. Not being serious enough in listening to the material presented during learning activities (Oktawirawan, 2020). Panic and rushing to complete exam questions due to lack of understanding overemphasis on exams as the sole determinant of success and graduation. Pressure from assignments, assessments of activeness, and attitude contributing to anxiety (Putranta and Jumadi, 2019).

In conclusion, anxiety is a prevalent emotion among students, stemming from various sources such as academic pressures, fear of negative judgment, test-related worries, and concerns over communication. Both ordinary students and those with learning disabilities can experience anxiety disorders, while perfectionist students may face academic anxiety due to unrealistic expectations. The fear of negative judgment, test anxiety, and communication-related concerns were identified as key factors contributing to anxiety during the learning process. These factors may vary across different educational settings and individual experience, emphasizing the need to address anxiety for

student well-being and academic success. Additionally, it is crucial to recognize anxiety's research for a comprehensive understanding. Common contributors to anxiety include a lack of mastery of learning materials, difficulty understanding concepts, and excessive emphasis on exams as the role measure of success. Addressing these factors is essential in creating a supportive learning environment that promotes both mental well-being and academic achievement.

This research is expected to be useful for students, lecturers, and other researchers. From this research, first we can find out how online integrated learning can influence teaching and learning activities in EFL classes. Second, the results of the research can help students', lecturers, and other researchers to find out what extend the influence of Online integrated learning on students' anxiety. Third, this research can be a reference for other researchers who focus on related topics.

METHODS

In this research methodology, data analysis is carried out through descriptive statistics (mean, median and standard deviation) to summarize the questionnaire results. Next, inferential analysis using t-test or analysis of variance (ANOVA) was used to determine significant differences in anxiety levels between different groups, especially between groups who have high learning achievement through online integrated learning and groups who do not. The results of this analysis provide insight into the

impact of online integrated learning based on students' anxiety levels and can provide a basis for recommendations or improvements in the use of technology in higher education learning contexts. Interpretation of results must consider the methodological limitations of the study and the specific context of the study.

The population is the first semester students of the English language as a general course. Among 16 study programs at UMKT, first semester students are divided into several classes, which carry out English as a Foreign Language (EFL) learning in each class. Lecturer presents English lesson in the learning process meanwhile the materials are available in the OPL platforms.

Random sampling technique will be used to determine the research sample. This technique involves selecting sample members from a population with equal probability, ensuring that each element in the population has a fair chance of being selected. The sample of the research is 117 students from 4 classes of English language as a general course semester 1 at Muhammadiyah University of East Kalimantan 2023/2024 Students.

The main source of the questionnaire that will be used in this research is a questionnaire that has been adopted and modified from previous research instruments whose reliability has been tested. The questionnaire comes from previous research examining online integrated learning in English language learning contexts. This adaptation process was carried out to

ensure the relevance and accuracy of research instruments in the context of online integrated learning at the first-year students of Muhammadiyah University East Kalimantan.

The questionnaire is a data collection technique that gives a set of questionnaires or written statements to the respondent to be answered (Yoon, 2014). In this questionnaire, there are 16 questions with four options. The researcher uses the Likert scale, which is a scale of 1-4, such as points SS (Strongly Agree), S (Agree), TS (disagree), STS (Strongly Disagree) so that it takes a short time to answer them. Questions in the questionnaire covered important aspects, such as students' comfort in using technology, their perception of the effectiveness of online integrated learning, and its impact on anxiety levels. To assess content validity, The questionnaire used has gone through a validation stage involving experts and initial trials to ensure the clarity and feasibility of the instrument. This will help establish the questionnaire's credibility and relevance to the research objectives.

The researcher will use a questionnaire administered via Google Form as the main data collection tool. WhatsApp will use it as media for distributing questionnaires to the sample. Subsequently, the gathered data will undergo meticulous analysis employing statistical techniques, aiming to discern the influence of online integrated learning on students' anxiety. Additionally, complementary data will be acquired by assessing students' progress within

the OPL platform, systematically categorized according to the percentage of utilization. This comprehensive approach will provide a multifaceted understanding of the research objectives, combining survey-based insight with quantitative assessments of technology's impact on students.

Data analysis will involve descriptive statistical methods, such as mean and standard deviation, to summarize the questionnaire findings. T-tests or analysis of variance (ANOVA) will be employed to assess whether significant differences exist in anxiety levels among different groups based on students' final examination, they are: (a) high, (b) medium, and (c) low. Centered on quantitative data, this study aims to offer a clear understanding of the influence online integrated learning has on students' anxiety in the context of higher education.

RESULT AND DISCUSSION

Result

This section presents the study's results, detailing the statistical analysis of the collected data. The findings focus on the relationship between online integrated learning and students' anxiety levels, as well as the impact of anxiety on academic performance. The analysis includes descriptive statistics, the One-Sample Kolmogorov-Smirnov Test, ANOVA, and Bonferroni multiple comparisons to provide a comprehensive understanding of the influence of technology-enhanced learning environments

on students' psychological well-being and academic outcomes.

Table 1. The Summary of Statistics

Statistics	Anxiety	Achievement
N	Valid	117
	Missing	0
Mean	41.55	78.21
Std. Error of Mean	.677	1.288
Median	41.00	77.00
Mode	40	100
Std. Deviation	7.323	13.936
Variance	53.629	194.199
Range	49	52
Minimum	21	48
Maximum	70	100
Sum	4861	9150

Based on the data analysis, this study presents statistics regarding anxiety and achievement levels from 117 participants. The mean anxiety score among participants was 41.55, indicating a moderate level of anxiety on average, with a standard error of 0.677. The median anxiety score was 41, and the mode was 40, suggesting that anxiety scores were somewhat evenly distributed around this central tendency. Anxiety scores ranged from a minimum of 21 to a maximum of 70, indicating a wide range of anxiety levels within the sample. In terms of achievement, the mean score was 78.21, with a standard error of 1.288. The median achievement score was 77, and the mode was 100, indicating a higher concentration of participants achieving high scores. Achievement scores ranged from a minimum of 48 to a maximum of 100, showing variability in achievement levels within the sample. The standard deviation and variance provide further

insight into the spread of scores around the mean for both anxiety and achievement. Overall, these statistics offer valuable insights into the

distribution and variability of anxiety and achievement levels among the study participants.

Table 2. The Summary of Normality Data

One-Sample Kolmogorov-Smirnov Test		Anxiety	Achievement	
	N	117	117	
Normal Parameters ^{a,b}	Mean	41.55	78.21	
	Std. Deviation	7.323	13.936	
	Absolute	.074	.077	
Most Extreme Differences	Positive	.061	.073	
	Negative	-.074	-.077	
Test Statistic		.074	.077	
Asymp. Sig. (2-tailed) ^c		.156	.084	
Monte Carlo Sig. (2-tailed) ^d	Sig.	.115	.087	
	99% Confidence Interval	Lower Bound	.107	.080
		Upper Bound	.123	.094

In this study, the One-Sample Kolmogorov-Smirnov Test was utilized to assess the normality of anxiety and achievement data distributions among 117 participants. The test revealed that the data adhered to normal parameters, with mean scores of 41.55 for anxiety and 78.21 for achievement, and standard deviations of 7.323 and 13.936, respectively. The most extreme differences between the sample and theoretical cumulative distributions were .074 for anxiety and .077 for achievement, with test statistics of .074 and .077, respectively. The asymptotic two-sided significance values were .156 for anxiety and .084 for achievement, and the Monte Carlo two-sided significance values were .115 for anxiety and .087 for achievement, indicating no significant deviations from a normal distribution.

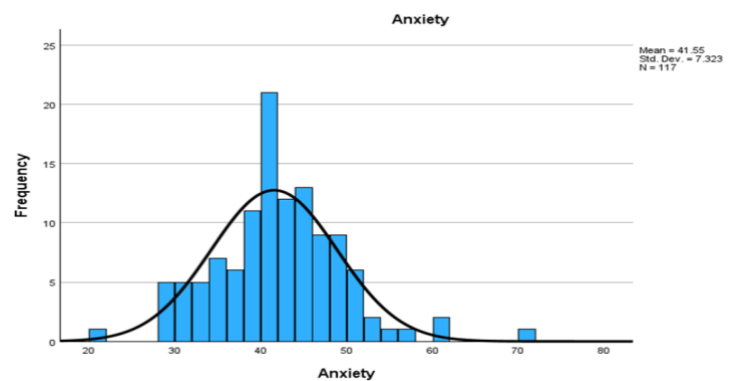


Figure 1. Histogram of Anxiety

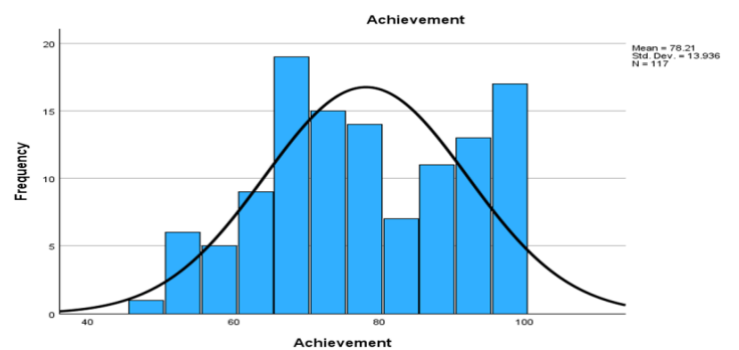


Figure 2. Histogram of Achievement

Additionally, the 99% confidence intervals for the Kolmogorov-Smirnov statistics ranged from .107 to .123 for anxiety and from .080 to .094 for achievement, providing robust support for the hypothesis tests and affirming the compliance of the data with a normal

distribution. Overall, these findings confirm the normal distribution of anxiety and achievement data, justifying the use of parametric methods in subsequent analyses and demonstrating the strong reliability of the statistical inferences drawn from this study.

Table 3. The Summary of Anova

Anxiety					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4632.003	2	2316.001	166.159	<,001
Within Groups	1588.989	114	13.938		
Total	6220.991	116			

Based on the provided ANOVA results, it can be concluded that there is a significant difference between anxiety levels and students' English scores based on their online integrated learning. This conclusion is drawn from the F-statistic of 166.159 with a p-value of less than 0.001. The F-statistic compares the variance between groups (in this case, different anxiety levels) to the variance within groups (students' English scores), determining whether the means of the

groups are significantly different. With a p-value less than 0.001, the observed difference is highly unlikely to be due to random chance alone, suggesting a significant relationship between online integrated learning and anxiety levels impacting students' English scores. In order to determine the difference among the groups, the researcher conducted a post-hoc test after the ANOVA test had been registered.

Table 4. The Summary of of Post Hoc Test

Multiple Comparisons						
Dependent Variable: Anxiety						
Bonferroni						
(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Low	Medium	-10.432*	.982	<,001	-12.82	-8.04
	High	-20.671*	1.145	<,001	-23.45	-17.89
Medium	Low	10.432*	.982	<,001	8.04	12.82
	High	-10.239*	.853	<,001	-12.31	-8.17
High	Low	20.671*	1.145	<,001	17.89	23.45
	Medium	10.239*	.853	<,001	8.17	12.31

Based on the multiple comparisons presented by Bonferroni, it is evident that students' anxiety levels significantly influence their English scores based on their English achievement in online integrated learning. This is supported by the significant mean differences observed between the compared anxiety level groups, as indicated by the highly significant p-values at the 0.05 level. For instance, the mean difference in anxiety scores between the low and medium anxiety groups is -10.432, with a highly significant p-value (<0.001). Similar significant differences are observed in comparisons between the low and high anxiety groups, as well as between the medium and high anxiety groups. Thus, it can be concluded that students' anxiety levels in online integrated learning significantly impact their English scores based on their English achievement.

The statistical analysis conducted in this study provides valuable insights into the relationship between online integrated learning, anxiety levels, and academic performance among students in the English Language Education Program at Muhammadiyah University of East Kalimantan. Beyond the statistical significance of the findings, discussing their practical implications for educators, policymakers, and stakeholders involved in educational practice is crucial.

Firstly, the moderate level of anxiety reported among students underscores the importance of fostering supportive and inclusive learning environments. Educators should be

mindful of the potential stressors associated with online integrated learning and work to create classrooms that prioritize students' emotional well-being. This could involve implementing mindfulness techniques, promoting open communication channels, and providing resources for stress management. By addressing these factors, educators can help mitigate anxiety and create a more conducive environment for learning.

Secondly, the significant impact of anxiety on students' academic performance highlights the need for targeted interventions to address anxiety in technology-enhanced learning environments. Educators should be equipped with strategies to identify and support students experiencing heightened levels of anxiety. This may include offering counseling services, implementing relaxation techniques, or providing academic support personalized to individual needs. By proactively addressing anxiety, educators can help students achieve better academic outcomes.

Moreover, the study's results suggest the need for ongoing research to explore further the complex relationship between online integrated learning, anxiety, and academic performance. Longitudinal studies could provide deeper insights into how these factors evolve and inform the development of evidence-based practices for promoting student success in technology-rich educational settings. Continuous research efforts can help educators and policymakers stay informed about emerging

trends and best practices, ensuring that educational strategies remain effective and responsive to students' need

Discussion

Technology integration in educational settings, particularly in language learning, has been widely recognized for its potential to enhance the learning experience. This study aimed to explore the influence of online integrated learning on students' anxiety levels within the English Language Education Program at Muhammadiyah University of East Kalimantan (UMKT). The statistical analysis revealed a mean anxiety score of 41.55 (moderate anxiety) and a mean achievement score of 78.21 (relatively high academic performance), with standard deviations of 7.323 and 13.936, respectively. The One-Sample Kolmogorov-Smirnov Test confirmed normal data distribution, justifying parametric methods. ANOVA results indicated significant differences in anxiety levels and English scores based on online integrated learning ($F=166.159$, $p<0.001$), suggesting a strong relationship between online integrated learning and anxiety affecting English scores. Bonferroni multiple comparisons further highlighted significant mean differences between low, medium, and high anxiety groups, with lower anxiety associated with higher scores, emphasizing the need to address anxiety in technology-integrated learning environments.

These findings align with previous research by Johnson (2023) and Weda and Sakti (2018), which identified anxiety as a significant

factor influencing academic performance. This study extends these findings by focusing on the specific context of online integrated learning in language learning. The results have important implications for educators and policymakers. The significant relationship between online integrated learning and students' anxiety levels suggests the need for careful implementation of technology in educational settings. Educators should be aware of the potential anxiety-inducing effects of technology and create supportive and anxiety-reducing learning environments. This could involve providing adequate training and resources for students and teachers, fostering positive teacher-student interactions, and incorporating strategies to manage and reduce anxiety.

Future research could benefit from longitudinal studies to provide deeper insights into the long-term effects of online integrated learning on students' anxiety levels and academic performance. Such studies would allow researchers to track changes in anxiety and achievement over time. Additionally, investigating the effectiveness of specific interventions or strategies aimed at reducing anxiety in technology-integrated learning environments could be valuable. This could involve implementing mindfulness techniques, cognitive-behavioral interventions, or other supportive measures. Exploring the role of individual differences, such as personality traits, learning styles, and prior experience with technology, in moderating the relationship

between online integrated learning and anxiety could provide valuable insights.

Moreover, examining the impact of different technology tools and platforms on students' anxiety levels could be beneficial, as not all technologies may have the same effects. Finally, exploring the role of socio-cultural factors in shaping students' experiences with online integrated learning and anxiety could offer valuable perspectives. Addressing these future research directions can advance our understanding of the complex interplay between online integrated learning, anxiety, and student outcomes, ultimately informing the design of more effective and inclusive educational practices.

CONCLUSIONS AND SUGGESTIONS

Conclusions

This research explored the influence of online integrated learning on students' anxiety and its subsequent effect on academic performance in the English Language Education Program at Muhammadiyah University of East Kalimantan. The first research question examined whether there is a significant difference between anxiety levels and students' English learning scores in online integrated instruction. The study revealed significant differences in anxiety levels and English learning scores among students based on their engagement with online integrated learning ($F=166.159$, $p<0.001$). Lower anxiety levels were consistently associated with higher academic performance, as indicated by the descriptive statistics, which showed a mean

anxiety score of 41.55 and a mean achievement score of 78.21, reflecting moderate anxiety and relatively high performance. The One-Sample Kolmogorov-Smirnov Test confirmed the normal distribution of the data, justifying the use of parametric methods.

The second research question focused on the influence of students' anxiety levels on their English learning scores in online integrated instruction. Bonferroni multiple comparisons revealed significant mean differences between low, medium, and high anxiety groups, with lower anxiety correlating with higher English scores. These findings highlight the critical role of anxiety management in technology-enhanced learning environments. By creating supportive and anxiety-reducing learning atmospheres, educators can significantly improve academic outcomes for students.

The research provides valuable insights into the significant impact of anxiety on students' academic performance in technology-integrated learning environments. The findings are particularly relevant for educational theory and practice, suggesting that anxiety management is critical in enhancing student outcomes in technology-enhanced education. Here are some broader implications for educational theory and practice that would enhance the conclusion's impact:

1. Integration of Emotional and Psychological Factors in Learning Models

The study reinforces the need to incorporate emotional and psychological

dimensions, such as anxiety, into educational theories and models. Traditional models focusing solely on cognitive aspects may overlook critical elements that influence learning outcomes. Integrating these factors can lead to more comprehensive and effective educational theories that address the holistic needs of students.

2. Technology Acceptance and Usage Models

The research underscores the importance of considering students' emotional responses in technology acceptance models (TAM). Models such as the Unified Theory of Acceptance and Use of Technology (UTAUT) could be expanded to include anxiety as a key factor influencing technology adoption and usage in educational settings.

3. Constructivist Learning Theory

The findings align with constructivist learning theories, emphasizing the importance of a supportive and interactive learning environment. By addressing anxiety and creating a conducive learning atmosphere, educators can better facilitate the active construction of knowledge, leading to improved academic outcomes.

Suggestions

In light of the findings presented in this study, several suggestions are offered to enhance the current understanding and application of the research topic, as follows:

1. Training and Support for Students and Teachers

Provide adequate training for students and teachers in the use of technology. This training can help reduce anxiety associated with the uncertainty of using new technology. Additionally, provides easily accessible technical support to help students and teachers resolve technical issues that may arise during the learning process. In this way, students and teachers can feel more confident and ready to use technology.

2. Supportive Learning Environment

Create a positive and supportive learning environment where students feel comfortable asking questions and sharing their concerns regarding technology use. Implementing anxiety management strategies such as relaxation sessions, breathing exercises, or counseling can also help students overcome their anxiety. A supportive environment will help students feel calmer and focused on learning.

3. Periodic Monitoring and Evaluation

Carry out regular monitoring and evaluation of students' anxiety levels and learning achievements to identify and overcome problems early on. Use student feedback to continually improve technology-integrated learning strategies and methods. These periodic evaluations will assist educators in adapting their approach according to student needs.

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