

# Teachers' Perceptions of Students' Psychological Challenges in Hybrid Learning

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## ABSTRAK

Pembelajaran hibrida telah menjadi model pendidikan terkemuka di Indonesia, menggabungkan pengajaran tradisional dan digital. Meskipun pendekatan ini menawarkan fleksibilitas, pendekatan ini menimbulkan tantangan psikologis yang unik bagi siswa, seperti kecemasan, kurangnya motivasi, dan kesulitan dengan kemampuan beradaptasi dan interaksi sosial. Studi ini menyelidiki persepsi guru tentang tantangan psikologis ini, menarik data dari 250 responden menggunakan skala Likert (1-5). Pemodelan Persamaan Struktural - Kuadrat Terkecil Parsial (SEM-PLS) 3 digunakan untuk menganalisis hubungan antar konstruk. Hasil menunjukkan bahwa kecemasan berdampak negatif pada keterlibatan, sementara motivasi dan kemampuan beradaptasi memainkan peran penting dalam mengurangi tantangan ini dan mendorong hasil belajar yang positif. Interaksi sosial ditemukan secara signifikan meningkatkan kesejahteraan siswa. Temuan ini menyoroti peran penting wawasan guru dalam mengatasi hambatan psikologis dan meningkatkan pengalaman belajar hibrida. Studi ini menyumbangkan perspektif yang berharga untuk kebijakan dan praktik pendidikan, terutama dalam konteks di mana model pembelajaran hibrida semakin diadopsi.

## ABSTRACT

Hybrid learning has become a prominent educational model in Indonesia, combining traditional and digital instruction. While this approach offers flexibility, it poses unique psychological challenges for students, such as anxiety, lack of motivation, and difficulties with adaptability and social interaction. This study investigates teachers' perceptions of these psychological challenges, drawing data from 250 respondents using a Likert scale (1-5). Structural Equation Modeling - Partial Least Squares (SEM-PLS) 3 was employed to analyze the relationships between constructs. Results indicate that anxiety negatively impacts engagement, while motivation and adaptability play crucial roles in mitigating these challenges and fostering positive learning outcomes. Social interaction was found to significantly enhance students' well-being. These findings highlight the critical role of teacher insights in addressing psychological barriers and enhancing the hybrid learning experience. The study contributes valuable perspectives to educational policy and practice, particularly in contexts where hybrid learning models are increasingly adopted.

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## 1. INTRODUCTION

The advent of hybrid learning has marked a significant transformation in the educational landscape, particularly in Indonesia, where the integration of digital technology into traditional pedagogical approaches is still evolving. This approach, which combines online and in-person instruction, offers greater flexibility and broader access to educational resources. However, the shift from conventional classroom settings to hybrid environments presents multifaceted challenges, especially related to students' psychological well-being. Hybrid learning environments often lead to feelings of isolation and decreased motivation due to reduced direct social interaction and the self-directed nature of online components, necessitating thoughtful implementation to safeguard students' mental health alongside academic success. Maintaining student engagement, particularly during asynchronous activities, proves difficult in such settings, where the absence of immediate feedback and peer interaction contributes to reduced motivation and increased isolation (Mirzoeva et al., 2024; Mulenga & Shilongo, 2025). Furthermore, equity and access remain pressing concerns, as students from underprivileged backgrounds may struggle with limited digital resources and unreliable internet, further exacerbating educational inequalities (Mulenga & Shilongo, 2025). Technological adaptation adds another layer of complexity, as both students and educators must navigate new tools, often requiring additional training and support (Maulana & Wiyono, 2024; Mirzoeva et al., 2024). The psychological effects of hybrid learning—such as heightened stress and isolation due to its self-paced nature—can hinder well-being and academic performance (Thornton, 2001). While the lack of structured environments, despite the flexibility offered, can result in anxiety and poor time management (Baliram & Dhawale, 2025). To address these challenges, the implementation of interactive and collaborative online learning strategies is essential to foster engagement and reduce isolation (Mulenga & Shilongo, 2025), alongside continuous assessment and feedback mechanisms that sustain motivation and track progress (Mulenga & Shilongo, 2025). Moreover, the establishment of robust support systems, including accessible mental health services and peer support networks, plays a crucial role in mitigating psychological burdens in hybrid learning contexts (Thornton, 2001).

In hybrid learning, students are required to adapt to diverse learning environments that demand high levels of self-regulation, adaptability, and intrinsic motivation, which often result in psychological strain manifested through anxiety, emotional fatigue, and diminished engagement. This challenge was particularly evident during the abrupt shift to digital platforms amidst the COVID-19 pandemic, where students struggled to balance online and offline learning dynamics, thereby impacting their academic performance and overall mental well-being. Psychological distress was notably higher among students in fully online courses compared to those in hybrid or face-to-face settings, underscoring the mental health challenges associated with digital learning environments (Sutton, 2023). Factors such as the lack of direct social interaction and the complexities of navigating digital platforms have contributed to heightened dissatisfaction and anxiety (Minutillo et al., 2020). Hybrid learning, while offering flexibility, also presents unique adaptation hurdles including stress, boredom, and time management issues (SASONGKO & HASTUTI, 2024). Nonetheless, it has also shown potential to enhance motivation and social interaction, reflecting a nuanced balance between its advantages and drawbacks (SASONGKO & HASTUTI, 2024). Moreover, the role of individual personality traits becomes critical in this context; for instance,

students with higher levels of neuroticism were found to experience greater psychological distress and demonstrated maladaptive academic profiles characterized by lower self-efficacy and increased anxiety, highlighting the importance of providing tailored mental health interventions during the hybrid learning transition (Alesi et al., 2023). a

Teachers, as primary stakeholders in education, play a crucial role in identifying and addressing the psychological challenges faced by students, particularly in hybrid learning settings where such issues may be exacerbated. Their perceptions and insights are vital for understanding the root causes of students' emotional, behavioral, and academic difficulties, and for designing effective, context-sensitive interventions. Research shows that teachers often serve as the first line of identification for mental health problems, frequently observing emotional distress, behavioral issues, academic struggles, and interpersonal conflicts among students (Erdur-Baker et al., 2011). In response, educators typically employ classroom-based strategies and initiate face-to-face interactions, which many regard as effective in mitigating psychological issues (Erdur-Baker et al., 2011). Moreover, teachers commonly refer students to school counselors when serious mental health concerns arise, though they also express a strong need for additional training to enhance their capacity in this role (Caldwell, 2019). The implementation of hybrid learning during the COVID-19 pandemic has further intensified psychological pressures, not only for students but also for teachers themselves, who report increased emotional exhaustion and anxiety due to the dual demands of managing both online and in-person instruction (Kaur et al., 2023). These burdens are compounded when teachers must address students with emotional and behavioral disorders (EBDs), a situation that often leads to elevated stress, burnout, and diminished job satisfaction, particularly in the absence of robust identification and support systems (Miller, 2023). Therefore, understanding teachers' perspectives is essential in shaping responsive mental health strategies within educational environments undergoing hybrid transformation.

## 2. LITERATURE REVIEW

### 2.1 *Hybrid Learning: Concept and Implementation*

Hybrid learning in Indonesia has emerged as a strategic response to the educational disruptions caused by the COVID-19 pandemic, combining traditional classroom teaching with digital methods to ensure continuity and flexibility. This blended approach, involving both online and offline modalities, has helped sustain access to education while promoting digital literacy and innovation among teachers (Dwi et al., 2022). At UNISNU Jepara, students perceived hybrid learning positively, noting its effectiveness in achieving learning objectives during the pandemic (Aulia & Sa'idah, 2022). However, its implementation still faces major challenges, such as inadequate digital infrastructure in rural areas, socio-economic disparities that limit access to technology and internet, and uneven digital literacy among students and educators (Wang et al., 2024). Despite these barriers, hybrid learning offers clear benefits, including flexible access to materials, ongoing social interaction, enhanced engagement, personalized learning, and the development of essential digital skills (O'Byrne & Pytash, 2015; Thornton, 2001).

### 2.2 *Psychological Challenges in Hybrid Learning*

The psychological impact of hybrid learning on students is multifaceted, encompassing increased anxiety, motivational challenges, adaptability issues, and social isolation. The sudden shift from traditional face-to-face instruction to digital platforms has heightened stress and anxiety levels among students, largely due to insufficient ICT skills and prolonged screen time, which negatively affect academic performance (Ortega et al., 2023). Moreover, hybrid learning environments demand strong self-regulation and intrinsic motivation—skills that many students struggle to develop—resulting in reduced engagement and academic anxiety (Nethania et al., 2023; Ortega et al., 2023). The fluctuating nature of hybrid settings, requiring constant adjustment between online and offline modalities, adds to students' cognitive and emotional burden, especially for those dependent on

consistent routines (Ortega et al., 2023). Compounding these issues is the lack of face-to-face social interaction, which can lead to feelings of loneliness and impede the development of interpersonal skills crucial for holistic growth (Ortega et al., 2023). These combined challenges highlight the complex psychological toll of hybrid learning and underscore the need for targeted support mechanisms to safeguard students' mental well-being.

### **2.3 Teachers' Perceptions of Psychological Challenges**

Teachers play a vital role in addressing students' challenges in hybrid learning, as they are often the first to observe signs of anxiety, low motivation, and adaptability issues. These problems are largely driven by reduced social interaction and feelings of isolation, which hinder student engagement (Irfan & Asif Raheem, 2023; Pei et al., 2022). Students also face difficulties balancing online and in-person learning, further complicated by technological barriers (Chiluiza et al., 2023). Limited teacher-student interaction in hybrid settings negatively affects both academic performance and emotional well-being (Li, 2024; Pervin et al., 2021). Despite their central role, many teachers feel unprepared to address these psychological issues due to a lack of training in emotional intelligence and supportive communication (Li, 2024), as well as insufficient resources and professional development (Irfan & Asif Raheem, 2023). These challenges underscore the urgent need for systemic support to help teachers foster students' psychological well-being in hybrid learning environments.

### **2.4 Research Gaps**

While extensive studies have examined the technological and pedagogical aspects of hybrid learning, limited research focuses on the psychological challenges faced by students in this context, particularly in Indonesia. Additionally, existing studies rarely consider teachers' perspectives as a primary source of data. This study addresses these gaps by analyzing teachers' insights into students' psychological issues in hybrid learning using a robust statistical framework.

## **3. METODE PENELITIAN**

This study used a cross-sectional survey design to gather data from teachers experienced in hybrid learning implementation. This method enabled the researchers to capture teachers' perceptions and identify trends related to students' psychological challenges. The population consisted of teachers across Indonesia who had implemented hybrid learning, with a purposive sample of 250 respondents selected to ensure relevant insights. The sample size met the minimum requirement for Structural Equation Modeling - Partial Least Squares (SEM-PLS), based on the rule of ten times the highest number of structural paths to a construct.

Data were collected using a structured questionnaire with a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), developed from literature and expert input. It measured four main constructs: Anxiety (stress and worry), Motivation (engagement and drive), Adaptability (transitioning between online and offline learning), and Social Interaction (feelings of isolation and connection). The online survey was distributed nationally with clear instructions and confidentiality assurances, conducted over four weeks to ensure sufficient participation.

The data were analyzed using SEM-PLS version 3, appropriate for models with latent variables and moderate sample sizes. The analysis followed three steps: (1) Measurement Model Evaluation to check reliability and validity; (2) Structural Model Evaluation to test hypothesized relationships using path coefficients, t-statistics, and p-values (significance set at  $p < 0.05$ ); and (3) Model Fit Assessment using indicators such as the Standardized Root Mean Residual (SRMR) and R-squared values to assess model adequacy.

## **4. HASIL DAN PEMBAHASAN**

### **4.1 Demographic Profile of Respondents**

The demographic profile of the 250 teacher respondents offers valuable context for understanding the sample population, encompassing gender, age, teaching experience, education

level, and school type. A majority of participants were female (160 or 64%), while male teachers accounted for 90 respondents (36%). In terms of age, the sample was distributed across various age groups: 21–30 years (50 or 20%), 31–40 years (90 or 36%), 41–50 years (70 or 28%), and 51 years and above (40 or 16%). Regarding teaching experience, 60 respondents (24%) had 1–5 years of experience, 80 (32%) had 6–10 years, 70 (28%) had 11–20 years, and 40 (16%) had over 20 years of experience, reflecting a wide range of pedagogical backgrounds. Educational attainment also varied, with most holding a Bachelor's degree (150 or 60%), followed by Master's degree holders (90 or 36%) and Doctoral degree holders (10 or 4%), indicating a generally high level of academic qualification. Respondents came from diverse school types, including public schools (130 or 52%), private schools (100 or 40%), and other institutions such as religious or vocational schools (20 or 8%), highlighting the broad application of hybrid learning across different educational contexts in Indonesia.

#### 4.2 Measurement Model Evaluation

The measurement model was evaluated to ensure the reliability and validity of the constructs. The evaluation focused on the following metrics: factor loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). The results demonstrated that the model meets the required thresholds, confirming the robustness of the constructs used in the study.

Table 1. Reliability and Validity

Construct	Indicator	Loading Factor	Cronbach's Alpha	Composite Reliability (CR)	AVE
Anxiety	A1	0.785	0.823	0.883	0.657
	A2	0.811			
	A3	0.849			
Motivation	M1	0.832	0.857	0.903	0.702
	M2	0.841			
	M3	0.851			
Adaptability	AD1	0.780	0.808	0.876	0.640
	AD2	0.817			
	AD3	0.798			
Social Interaction	SI1	0.829	0.846	0.901	0.695
	SI2	0.849			
	SI3	0.838			

The key findings from the measurement model analysis indicate that the instrument used in this study demonstrates strong reliability and validity. All indicators showed factor loadings above the recommended threshold of 0.7, confirming strong item reliability. Cronbach's Alpha values ranged from 0.808 to 0.857, reflecting high internal consistency across all constructs. Additionally, the Composite Reliability (CR) values for all constructs exceeded 0.8, further affirming the overall reliability of the measurement model. The Average Variance Extracted (AVE) values ranged from 0.640 to 0.702, surpassing the minimum threshold of 0.5, thereby confirming the convergent validity of the constructs.

#### 4.3 Structural Model Evaluation

The path coefficients represent the strength and direction of the relationships between constructs.

Table 2. Hypothesis Testing

Hypothesized Path	Path Coefficient ( $\beta$ )	T-Statistic	P-Value	Result
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Anxiety → Engagement	-0.421	5.873	0.000	Significant
Motivation → Engagement	0.528	7.214	0.000	Significant
Adaptability → Anxiety	-0.394	6.102	0.000	Significant
Social Interaction → Well-being	0.467	6.893	0.000	Significant

The structural model analysis revealed several key findings related to the psychological dynamics of students in hybrid learning. Anxiety was found to have a significant negative effect on engagement ( $-0.421$ ,  $p < 0.001$ ), indicating that students with higher levels of anxiety are less likely to remain actively engaged. Conversely, motivation showed a strong positive impact on engagement ( $0.528$ ,  $p < 0.001$ ), underscoring its crucial role in sustaining participation in hybrid environments. Adaptability was shown to significantly reduce anxiety ( $-0.394$ ,  $p < 0.001$ ), suggesting that students who are more adaptable experience lower psychological distress. Additionally, social interaction had a significant positive effect on students' emotional well-being ( $0.467$ ,  $p < 0.001$ ), highlighting the importance of maintaining social connections in supporting mental health within hybrid learning contexts.

The  $R^2$  values reflect the proportion of variance in each endogenous construct explained by the model. For the Engagement construct, an  $R^2$  value of 0.643 indicates that 64.3% of its variance is explained by anxiety and motivation, suggesting a strong explanatory power. The Anxiety construct has an  $R^2$  of 0.155, meaning that 15.5% of its variance is explained by adaptability, which represents a modest relationship. Meanwhile, Well-being shows an  $R^2$  of 0.218, indicating that 21.8% of the variance in students' emotional well-being is accounted for by social interaction.

In addition to  $R^2$ , the  $Q^2$  values were calculated using a blindfolding procedure to assess the model's predictive relevance. All  $Q^2$  values were greater than zero, confirming that the model has acceptable predictive accuracy. Specifically, the  $Q^2$  for Engagement is 0.375, indicating high predictive relevance. The  $Q^2$  values for Anxiety and Well-being are 0.102 and 0.153, respectively, both of which suggest moderate predictive relevance for these constructs within the model.

To assess the overall model fit, the Standardized Root Mean Residual (SRMR) was examined. The SRMR value obtained was 0.052, which is well below the recommended maximum threshold of 0.08. This result indicates an excellent fit between the hypothesized model and the observed data, confirming the model's adequacy for explaining and predicting psychological dynamics in hybrid learning contexts.

#### 4.4 Discussion

##### 4.4.1 The Role of Anxiety in Hybrid Learning

The study reveals a negative and significant relationship between anxiety and student engagement, as perceived by teachers who observe that heightened anxiety hinders students' ability to participate actively in hybrid learning environments. This finding aligns with previous research showing that the uncertainty and dual demands of online and offline learning increase anxiety, which subsequently lowers students' self-efficacy and engagement levels (Acosta-Gonzaga & Ruiz-Ledesma, 2022; Pennino et al., 2022). Specific instructional tasks—such as non-anonymous online activities—are also identified as sources of anxiety that further impair engagement (Pennino et al., 2022). To address this, supportive mechanisms like counseling services and clear communication of expectations are essential in mitigating anxiety and enhancing engagement (Acosta-Gonzaga & Ruiz-Ledesma, 2022). While active learning strategies can help manage anxiety, certain practices like cold calling may inadvertently elevate it and should be applied cautiously (Li, 2024). Moreover, the relationship between anxiety and engagement is nuanced; moderate levels of anxiety can sometimes motivate students to perform better, indicating that the emotional response is not uniformly

detrimental (Li, 2024). Understanding the specific factors contributing to anxiety in hybrid learning is therefore vital for developing targeted interventions that support both student engagement and academic

#### **4.4.2 Motivation as a Key Driver of Engagement**

Motivation was identified as a significant positive predictor of engagement, supporting the findings of Bao (2020) that intrinsic motivation enhances students' commitment to learning activities in hybrid environments. Teachers observed that strategies such as gamification, personalized feedback, and interactive activities were particularly effective in maintaining motivation. Interactive activities that are aligned with students' interests and offer both emotional and academic support promote active participation and intrinsic motivation (Merdiaty & Sulistiasih, 2024). Designing learning environments that nurture intrinsic interest and balance it with extrinsic factors can help students reach their full potential (Nurishlah et al., 2023). Personalized feedback, when timely and constructive, fosters a sense of autonomy, self-worth, and persistence by helping students recognize their progress and areas for growth (Merdiaty & Sulistiasih, 2024). Meanwhile, gamification—through tools like point systems, leaderboards, and badges—has proven to enhance student engagement, collaboration, and learning outcomes. By stimulating intrinsic motivation and encouraging problem-solving, critical thinking, and creativity, gamified activities have also been associated with improved mind-flow experiences and effective knowledge transfer (Shao et al., 2025). These insights underscore the need for hybrid learning designs that are not only academically rigorous but also emotionally engaging and personalized.

#### **4.4.3 Adaptability Reduces Anxiety**

The significant relationship between adaptability and reduced anxiety highlights the importance of equipping students with the skills necessary to navigate the complexities of hybrid learning. Adaptability allows students to manage the demands of combining in-person and online education more effectively, thereby lowering their psychological strain. Research shows that students with higher adaptability tend to experience lower levels of anxiety and depression, which are often intensified by the challenges inherent in hybrid learning environments (Zhang et al., 2022). Teachers play a central role in fostering this adaptability by offering step-by-step guidance and training on the use of technological tools, helping students become more comfortable with hybrid structures (Islam et al., 2025). A strong teacher presence is also associated with improved mental well-being and job satisfaction, which further enhances their ability to support students effectively (Raes et al., 2020). Collaborative teacher-student relationships enable the customization of learning experiences to meet individual needs, thereby enhancing engagement and outcomes (Islam et al., 2025). Moreover, hybrid learning offers benefits such as flexibility, personalization, and improved interaction, which contribute to reduced anxiety and a greater sense of connection (El-Gayar & Dennis, 2005; Guerrero-Quíñonez et al., 2023). While challenges like the digital divide and inadequate teacher training remain, hybrid learning presents opportunities to enhance accessibility, equity, and the overall quality of education (Guerrero-Quíñonez et al., 2023).

#### **4.4.4 Social Interaction Enhances Well-being**

Social interaction emerged as a critical factor in promoting students' emotional well-being, reinforcing findings that highlight the detrimental effects of social isolation on mental health, particularly during the COVID-19 pandemic (Jiang, 2024). Even students without prior mental health issues experienced declines in well-being as social isolation increased (Hamza et al., 2021). Teachers observed that collaborative activities, group discussions, and peer support networks were effective in fostering a sense of belonging and reducing the psychological toll of hybrid learning. Strategies such as flexibility, friendliness, interactivity, and consistent support can nurture this sense of connection in both face-to-face and online settings (McCarthy et al., 2021). Pedagogical tactfulness is especially important for ensuring that all students, including those from diverse backgrounds, are included in meaningful shared experiences (Kirova, 2001). Building a strong sense of community within the classroom contributes significantly to student engagement, academic persistence, and

overall well-being (McCarthy et al., 2021), and teachers play a vital role in cultivating an environment of acceptance and belongingness to counter the isolating nature of hybrid education (Kirova, 2001).

#### 4.4.5 Implications for Educational Practices

The study underscores the multifaceted psychological challenges students face in hybrid learning, necessitating a holistic approach to education. Teachers must be equipped with the resources and training to identify and address these challenges effectively. Policymakers should prioritize mental health programs and provide funding for technological tools that enhance student adaptability and engagement. Furthermore, integrating social-emotional learning (SEL) frameworks into hybrid curriculums could help students develop resilience and coping mechanisms.

#### 4.4.6 Contribution to the Literature

This study contributes to the growing body of knowledge on hybrid learning by emphasizing the psychological dimension of the hybrid experience. It highlights the critical role of teacher perceptions in understanding and addressing students' challenges, filling a gap in the existing literature.

## 5. KESIMPULAN

This study sheds light on the psychological challenges faced by students in hybrid learning environments, as perceived by teachers in Indonesia. The findings reveal that anxiety significantly hampers student engagement, whereas motivation and adaptability positively influence learning outcomes. Additionally, social interaction is a key factor in enhancing students' emotional well-being. These results underscore the need for holistic strategies that address psychological challenges through teacher training, mental health support, and inclusive instructional design. Policymakers and educators should prioritize creating supportive environments that reduce anxiety, foster motivation, and encourage social connectivity. By leveraging teacher insights and implementing targeted interventions, hybrid learning can be optimized to benefit students academically and emotionally. This research contributes to the understanding of hybrid education's psychological dimensions and offers actionable recommendations for improving its effectiveness in Indonesia and similar educational contexts.

## DAFTAR PUSTAKA

- Acosta-Gonzaga, E., & Ruiz-Ledesma, E. F. (2022). Students' emotions and engagement in the emerging hybrid learning environment during the COVID-19 pandemic. *Sustainability*, 14(16), 10236.
- Alesi, M., Giordano, G., Gentile, A., & Caci, B. (2023). The switch to online learning during the COVID-19 pandemic: the interplay between personality and mental health on university students. *International Journal of Environmental Research and Public Health*, 20(7), 5255.
- Aulia, R., & Sa'idah, N. (2022). Hybrid Learning: An Alternative Learning Approach in the Pandemic COVID-19. *At-Tarbawi: Jurnal Kajian Kependidikan Islam*, 7(1), 35–44.
- Baliram, P. R., & Dhawale, V. R. (2025). A Comparative Analysis of Online Learning and Traditional Learning: Towards a Hybrid Learning Model. *Learning*, 4(3.8), 0–4.
- Caldwell, N. (2019). *Teachers' Perception of Mental Health in the School System*.
- Chiluiza, K., Echeverria, V., Pinargote, A., Carrillo, G., & Ortiz-Rojas, M. (2023). Implementing Synchronous Hybrid Learning: Insights from Teachers and Students' Experiences. *Latin American Conference on Learning Technologies*, 60–74.
- Dwi, F. R., Suprpto, N., & Supardi, Z. A. I. (2022). Implementation of hybrid learning and its impacts at a public junior school in Indonesia. *Studies in Learning and Teaching*, 3(3), 170–179.
- El-Gayar, O. F., & Dennis, T. (2005). *Effectiveness of hybrid learning environments*.
- Erdur-Baker, Ö., Özmen, O., & Özmen, H. (2011). Teachers' Perspectives on Psychological Issues among their Students. *İlköğretim Online*, 10(1), 197–205.
- Guerrero-Quiróñez, A. J., Bedoya-Flores, M. C., Mosquera-Quiróñez, E. F., Ango-Ramos, E. D., & Lara-Tambaco, R. M. (2023). Hybrid education: Current challenges. *Ibero-American Journal of Education & Society Research*, 3(1), 276–279.



- Hamza, C. A., Ewing, L., Heath, N. L., & Goldstein, A. L. (2021). When social isolation is nothing new: A longitudinal study on psychological distress during COVID-19 among university students with and without preexisting mental health concerns. *Canadian Psychology/Psychologie Canadienne*, 62(1), 20.
- Irfan, T., & Asif Raheem, M. (2023). Perception of students and teachers regarding online teaching-learning during Covid-19 at university level. *Middle East J Appl Sci Technol*, 6, 9–19.
- Islam, U., Alali, I. K., Alotaibi, S. D., Alzaid, Z., Shah, B., Ali, I., & Moreira, F. (2025). Introducing the Hyperdynamic Adaptive Learning Fusion (HALF) model for superior predictive analytics in E-learning. *Neural Computing and Applications*, 1–21.
- Jiang, X. (2024). Impact of Social Isolation During COVID-19 on Adolescents' Mental Health Issues. *Lecture Notes in Education Psychology and Public Media*, 77, 77–80.
- Kaur, H., Arukesamy, A. S., Ganesan, S., & Kaur, G. (2023). Mental Health and Well-being of Elementary School Teachers Affected by Hybrid Teaching during the Covid-19 Pandemic. *Journal of Academic Research in Progressive Education and Development*, 12(3), 387–408.
- Kirova, A. (2001). *Social Isolation, Loneliness and Immigrant Students' Search for Belongingness: From Helplessness to Hopefulness*.
- Li, Y. (2024). The Impact of Teacher-student Relationships on Students' Mental Health. *Lecture Notes in Education Psychology and Public Media*, 33, 30–35.
- Maulana, A., & Wiyono, D. Y. (2024). Adaptive Material Design Supporting Personalized Education: Challenges and Opportunities. *JOURNAL OF TECHNOLOGY, EDUCATION & TEACHING (J-TECH)*, 1(2), 86–89.
- McCarthy, H., Abel, R., & Tisdell, C. C. (2021). Community in classrooms: Practical strategies to foster engineering students' sense of belonging. *REES AAEE 2021 Conference: Engineering Education Research Capability Development: Engineering Education Research Capability Development*, 363–371.
- Merdiaty, N., & Sulistiasih, S. (2024). Empowering Learning: The Mediating Role of Teachers in Enhancing Students' Intrinsic Motivation. *AL-ISHLAH: Jurnal Pendidikan*, 16(4), 5163–5172.
- Miller, E. Z. (2023). *Teachers' perceptions of students with emotional and behavior disorders: A phenomenological study*. Northcentral University.
- Minutillo, S., Cleary, M., & Visentin, D. (2020). The mental health of online learners within the educational sector. *Issues in Mental Health Nursing*, 41(10), 963–965.
- Mirzoeva, A. M., Bostoganashvili, E. R., Vadov, A. A., Volkova, A. A., Gulov, A. P., & Platonova, N. I. (2024). Integrating Hybrid Learning into the Higher Education System: Challenges and Opportunities. *Professional Discourse & Communication*, 6(3), 80–96.
- Mulenga, R., & Shilongo, H. (2025). Hybrid and blended learning models: innovations, challenges, and future directions in education. *Acta Pedagogica Asiana*, 4(1), 1–13.
- Nethania, D. E., Pratitis, N. T., & Arifiana, I. Y. (2023). Hubungan Self-Regulated Learning dengan Kecemasan Akademik Mahasiswa Semester Akhir yang Mengikuti Pembelajaran Hybrid. *Psikodimensia: Kajian Ilmiah Psikologi*, 22(2), 121–129.
- Nurishlah, L., Nurlaila, A., & Rusnaya, M. (2023). Strategi Pengembangan Motivasi Instrinsik Di Dalam Pembelajaran Siswa Sekolah Dasar. *MURABBI*, 2(2), 60–71.
- O'Byrne, W. I., & Pytash, K. E. (2015). Hybrid and blended learning: Modifying pedagogy across path, pace, time, and place. *Journal of Adolescent & Adult Literacy*, 59(2), 137–140.
- Ortega, F. Z. N., Suarez, C. J., Yuipco, W. A., & Cabanilla Jr, A. (2023). A systematic review on the academic stresses of college students in blended instruction. *International Journal of Social Science, Educational, Economics, Agriculture Research and Technology*, 2(5), 43–52.
- Pei, L., Poortman, C., Schildkamp, K., & Benes, N. (2022). Teachers' and students' perceptions and practices in promoting a sense of community for blended education. *Towards a New Future in Engineering Education, New Scenarios That European Alliances of Tech Universities Open Up*, 2126–2132.
- Pennino, E., Ishikawa, C., Ghosh Hajra, S., Singh, N., & McDonald, K. (2022). Student anxiety and engagement with online instruction across two semesters of COVID-19 disruptions. *Journal of Microbiology & Biology Education*, 23(1), e00261-21.
- Pervin, M. M., Ferdowsi, N., & Munni, I. J. (2021). Teacher-student interactions and academic performance of students. *Dhaka University Journal of Biological Sciences*, 30(1), 87–93.
- Raes, A., Detienne, L., Windey, I., & Depaepe, F. (2020). A systematic literature review on synchronous hybrid learning: gaps identified. *Learning Environments Research*, 23, 269–290.

- SASONGKO, S. N. U. R. A., & HASTUTI, R. (2024). GAMBARAN COLLEGE ADJUSTMENT PADA MAHASISWA: STUDI DESKRIPTIF DI PERGURUAN TINGGI YANG MENERAPKAN HYBRID LEARNING. *PAEDAGOGY: Jurnal Ilmu Pendidikan Dan Psikologi*, 4(4), 555–566.
- Shao, J., Abdul Rabu, S. N., & Chen, C. (2025). Gamified interactive e-books for bullying prevention: enhancing knowledge and motivation in Chinese primary schools. *Frontiers in Psychology*, 16, 1509549.
- Sutton, H. (2023). Fully online courses impacted student mental health. *Enrollment Management Report*, 27(2), 8.
- Thornton, L. T. (2001). Beyond the blackboard: Regulating distance learning in higher education. *Vand. J. Ent. L. & Prac.*, 3, 210.
- Wang, X., Liu, J., Jia, S., Hou, C., Jiao, R., Yan, Y., Ma, T., Zhang, Y., Liu, Y., & Wen, H. (2024). Hybrid teaching after COVID-19: advantages, challenges and optimization strategies. *BMC Medical Education*, 24(1), 753.
- Zhang, K., Mi, Z., Parks-Stamm, E. J., Cao, W., Ji, Y., & Jiang, R. (2022). Adaptability protects university students from anxiety, depression, and insomnia during remote learning: a three-wave longitudinal study from China. *Frontiers in Psychiatry*, 13, 868072.