Analysis of Students' Readiness to Prepare Research Reports in Research Methodology Courses

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Article Info	ABSTRACT
	Students' ability to prepare research reports is an important academic competence that must be developed as part of scientific literacy in higher education. A research report not only serves as the final product of learning in a research methodology course, but also reflects students' readiness to understand research concepts, apply methodological procedures, and communicate research findings in a systematic and academically acceptable manner. In practice, students' readiness to prepare research reports varies, even after they have completed a Research Methodology course. This study aimed to describe students' readiness to prepare research reports in a Research Methodology course in terms of five aspects: methodological understanding, technical writing skills, academic readiness, psychological readiness, and learning support. This study employed a descriptive quantitative design involving 35 fifth-semester students in the Mathematics Education program. Data were collected using a four-point Likert-scale questionnaire consisting of 21 items, distributed online via Google Forms. Data were analyzed descriptively by calculating mean scores and categorizing students' readiness levels. The results showed that, overall, students' readiness was at a moderate level across all measured aspects. Learning support obtained the highest mean score, whereas technical skills for preparing research reports received the lowest. These findings indicate that strong learning support is not yet fully matched by students' internal readiness. Therefore, this study recommends strengthening Research Methodology instruction by placing greater emphasis on research report writing practice, staged exercises, and continuous feedback.

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Introduction

The ability to prepare research reports is a core academic competency that students must develop as part of scientific literacy in higher education (Shandy, 2024; Wang et al., 2018; Zulnaidi et al., 2024). A research report is not only the final output of a research process, but also evidence of students' capacity to integrate theoretical knowledge, methodological competence, and critical and reflective thinking (Talib et al., 2025b, 2025a). In contemporary higher education, this competency also indicates students' readiness to participate in research-oriented academic and professional communities.

Globally, strengthening students' research competence aligns with research-based education, an approach that positions students as active participants in knowledge construction through inquiry and research activities (Belawati et al., 2023; Inganah et al., 2023). Engagement in research tasks, including research report writing, can strengthen conceptual understanding, analytical reasoning, and scientific dispositions. However, such engagement requires adequate readiness to carry out a systematic and reflective research process. Evidence from prior studies suggests a persistent gap between students' conceptual understanding of research methods and their ability to apply that understanding in research report writing (Dagdag & Calimag, 2023; Evin Gencel & Saracaloğlu, 2018). Many students can identify standard report sections, yet struggle to develop rigorous arguments, synthesize literature, and connect empirical findings to relevant theoretical frameworks (Batiao et al., 2023; Turan & Koç, 2018). This pattern indicates that research report writing is not merely a technical task. It is an academic practice that demands cognitive readiness, methodological competence, and scientific literacy.

In Indonesia, the urgency of research report writing competence continues to increase as higher education policies emphasize research culture and scientific publication (Morgan, 2020). Research Methodology courses therefore serve as a strategic platform to introduce the foundations of scientific inquiry and to train students in research reporting. However, instruction often remains concept-oriented and does not consistently provide structured opportunities for extended writing practice, iterative revision, and sustained feedback. As a result, students may complete the course with partial understanding but limited readiness to produce coherent and academically acceptable research reports.

Student readiness to prepare research reports can be examined through two complementary perspectives: learning readiness and academic literacy (Wang et al., 2018; Zulnaidi, Mafarja, & Oktavika, 2024). Learning readiness refers to internal conditions that enable individuals to engage effectively in learning activities. In the context of research reporting, cognitive readiness relates to understanding methodological logic and research concepts, skill readiness relates to technical competence in academic writing, and affective readiness includes motivation, scientific attitudes, and confidence to complete research tasks (Talib et al., 2025b). Meanwhile, academic literacy frames research report writing as a social and disciplinary practice that requires knowledge of disciplinary conventions, the ability to construct evidence-based arguments, and ethical communication of findings. Therefore, readiness should not be reduced to compliance with formatting rules, but understood as holistic preparedness to participate meaningfully in academic research practices.

Studies on students' scientific writing commonly show that students understand research procedures at a general level, yet face difficulties when producing coherent and persuasive research reports (Dello Iacono et al., 2024). Challenges often appear in formulating research problems, selecting and justifying methods, collecting, and analyzing data appropriately, and constructing discussions that interpret findings critically (Adolat, 2024; Milenković & Stevanić, 2025). In Indonesia, similar issues persist. Many students struggle to develop research questions, design procedures, and write discussions that go beyond description. Existing studies

often focus on product quality or writing errors, while fewer studies treat readiness as an initial condition that shapes performance in research report preparation (Hoang, 2020).

Based on this landscape, research that positions student readiness as a multidimensional construct in research report preparation remains limited, particularly within undergraduate Research Methodology courses. Studies that integrate methodological understanding, technical writing skills, academic readiness, psychological readiness, and learning support within a single analytical framework are still scarce (Dello Iacono et al., 2024; Miguel et al., 2020; Milenković & Stevanić, 2025). This gap matters because inadequate readiness can lead to low-quality research reports, longer completion times, and weaker engagement in research culture. This study addresses the gap by analyzing student readiness to prepare research reports as a multidimensional construct comprising methodological understanding, technical academic writing skills, academic readiness, psychological readiness, and learning support. Rather than focusing primarily on the final product or writing errors, this study treats readiness as a prerequisite that influences the entire research reporting process. Accordingly, this study aims to describe students' readiness to prepare research reports in a Research Methodology course across these five dimensions. The findings are expected to provide empirical input for designing more effective Research Methodology instruction that prioritizes structured writing practice, staged exercises, and continuous feedback to strengthen students' readiness to produce high-quality research reports.

Method

Types of Research

This study employed a descriptive quantitative approach. This approach was selected because the study does not aim to examine relationships among variables or evaluate the effectiveness of an intervention. Instead, it aims to empirically map students' readiness to prepare research reports. The data were collected in numerical form through a questionnaire; therefore, a descriptive quantitative approach was appropriate for objectively describing students' readiness. Using this approach, the researcher presents a factual description of students' readiness as it exists, without implementing any intervention during the research process. Accordingly, the descriptive quantitative design enables the study to generate comprehensive and representative information about students' readiness to engage in the Research Methodology course and to prepare research reports.

Subjects

The participants were fifth-semester students from the Mathematics Education Study Program, Faculty of Teacher Training and Education, University Nias, who were enrolled in the Research Methodology course. Fifth-semester students were selected because they are typically at an early stage of active involvement in research activities and begin to be guided to prepare research reports independently. This study used total sampling. All students taking the Research Methodology course were included as respondents, so the data represent the overall condition of student readiness within the cohort.

Instruments

The instrument used in this study was a student readiness questionnaire for research report preparation. The questionnaire was developed using a four-point Likert scale, with response

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options ranging from the lowest to the highest score to represent the level of student readiness. The instrument was designed based on learning readiness and academic literacy perspectives and aligned with the research objectives. The questionnaire consisted of 21 statements grouped into five aspects of readiness: (1) understanding of research methodology concepts, (2) technical skills in preparing research reports, (3) academic readiness, (4) psychological readiness, and (5) learning support. Each item was designed to capture students' readiness based on their experiences and perceptions while participating in the Research Methodology course.

Table 1. Categories for Student Readiness Scores

Average score range	Readiness category
3.26–4.00	Very High
2.51–3.25	High
1.76–2.50	Moderate
1.00–1.75	Low

These categories were used to interpret readiness scores for each aspect: methodological understanding, technical skills in research report preparation, academic readiness, psychological readiness, and learning support. This classification allows the analysis to present numerical results while also providing interpretable categorical meaning regarding students' readiness to prepare research reports.

Instrument Validity and Reliability

Prior to distribution, the questionnaire underwent content validation through expert judgment. Two lecturers with expertise in educational research and academic writing reviewed the instrument to evaluate clarity, relevance, and representativeness of each item with respect to the five readiness aspects. Revisions were made based on the experts' feedback to ensure that the items matched the intended indicators and were understandable for respondents. After data collection, the internal consistency of the questionnaire was examined using Cronbach's alpha. An alpha coefficient of at least 0.70 was used as the minimum criterion to indicate acceptable reliability for research purposes. In addition, item-level review was conducted to identify any items that reduced the overall reliability of the scale.

Data Collection and Analysis

Data collection involved several stages. First, the researcher developed the student readiness questionnaire based on predetermined indicators. Second, the questionnaire was distributed online via Google Forms. Google Forms was selected because it facilitates questionnaire distribution, increases efficiency in data collection, and allows respondents to complete the questionnaire independently and flexibly. Third, responses submitted through Google Forms were compiled and downloaded as raw data for analysis. The questionnaire data were analyzed using descriptive quantitative techniques. The analysis involved calculating total scores and mean scores for each aspect of student readiness. The resulting scores were then converted into percentages and categorized to describe students' readiness levels in preparing research reports. The findings are presented in tables and narrative form to provide a clear description of readiness across each aspect and overall readiness in the Research Methodology course.

Each questionnaire item was scored using a four-point Likert scale. Positive statements were scored from 1 to 4, where 1 indicates the lowest readiness and 4 indicates the highest readiness. If the questionnaire included negatively worded items, reverse scoring was applied so that higher scores consistently represented higher readiness.

Scores were calculated at two levels. First, aspect scores were obtained by summing item scores within each aspect and then dividing by the number of items to produce an average aspect score. Second, an overall readiness score was calculated by averaging all item scores. Mean scores were interpreted using the readiness category ranges provided in Table 1. To support interpretation, mean scores were also converted into percentages using the following formula:

$$\text{Percentage} = \frac{\text{Obtained score}}{\text{Maximum possible score}} \times 100$$

The analysis results were presented in tables and narrative descriptions to highlight readiness levels for each aspect and the overall readiness profile of students in the Research Methodology course.

Research Findings

Overview of Research Implementation

This study was conducted with fifth-semester students in the Mathematics Education Study Program who were enrolled in the Research Methodology course. A total of 35 students participated as respondents by completing an online questionnaire distributed via Google Forms. Google Forms was selected to ensure accessibility, time efficiency, and consistent instrument completion. The instrument was a four-point Likert-scale questionnaire consisting of 21 statements designed to measure students' readiness to prepare research reports. The questionnaire covered five readiness aspects: understanding of research methodology concepts, technical skills in report preparation, academic readiness, psychological readiness, and learning support. Data collection was conducted after students had received the core research methodology content and had prior experience with research report preparation. Responses submitted through Google Forms were automatically compiled and analyzed using descriptive quantitative techniques to provide an empirical profile of student readiness.

Student Readiness to Participate in Research Methodology Lectures

Descriptive analysis indicated that students' readiness to prepare research reports was generally in the moderate category. The mean scores across aspects ranged from 2.62 to 3.25 on a four-point scale. These results suggest that students show initial readiness to engage in Research Methodology learning, but their readiness has not yet reached an optimal level to support independent and comprehensive research report writing. Overall, learning support achieved the highest mean score, while technical skills in research report preparation had the lowest. This pattern indicates that students perceive strong external support from course materials, lecturer guidance, and examples and exercises. However, internal readiness, particularly technical writing competence, remains relatively weaker. This finding points to a gap between the availability of learning support and students' ability to translate that support into strong applied writing skills.

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Table 2. Average Student Readiness Score by Aspect (n = 35)

Aspect of readiness	Mean score	Category*	Rank
Understanding of research methodology concepts	2.67	Moderate	4
Technical skills in research report preparation	2.62	Moderate	5
Academic readiness	2.68	Moderate	3
Psychological readiness	2.73	Moderate	2
Learning support	3.25	High	1

*Category based on your score ranges: 3.26–4.00 = Very High; 2.51–3.25 = High; 1.76–2.50 = Moderate; 1.00–1.75 = Low.

Results by Readiness Aspect

Understanding of Research Methodology Concepts

The mean score for understanding research methodology concepts was 2.67 (Moderate). Most students reported that they understood the general distinction between qualitative and quantitative research and were familiar with the basic structure of a research report. However, responses varied on items related to selecting appropriate research methods and designs. This pattern suggests that students possess foundational conceptual understanding, but they have not fully developed an applied understanding that supports methodological decision-making in authentic research contexts.

Technical Skills in Research Report Preparation

Technical skills obtained the lowest mean score, 2.62 (Moderate). This result indicates that students still face challenges in producing research reports that are systematic and coherent across key sections such as the background, objectives, methodology, results, discussion, and conclusions. Some students reported difficulty organizing a complete report in a sequential and academically acceptable manner. This aspect therefore requires the strongest reinforcement through structured writing practice, staged tasks, and continuous feedback.

Academic Readiness

Academic readiness produced a mean score of 2.68 (Moderate). Students were generally familiar with the use of formal academic language and aware of academic writing ethics. Nevertheless, substantial variation appeared in skills related to citing sources correctly and using credible journal literature. This finding indicates that students show basic academic awareness, but they still require support to apply academic literacy practices consistently in research report writing.

Psychological Readiness

Psychological readiness had a mean score of 2.73 (Moderate), the highest among internal readiness aspects. Most students reported sufficient motivation and confidence to prepare research reports, although some still experienced anxiety when working independently. This result suggests that the main challenge is not primarily motivational, but lies in conceptual mastery and technical writing competence.

Learning Support

Learning support achieved the highest mean score, 3.25 (High). Students perceived course materials, lecturer guidance, and provided examples and exercises as helpful in

supporting their readiness. This indicates that the learning environment offers strong external support. However, high learning support does not automatically translate into strong technical and methodological competence. This reinforces the need for instructional adjustments that prioritize intensive report-writing practice and mentoring.
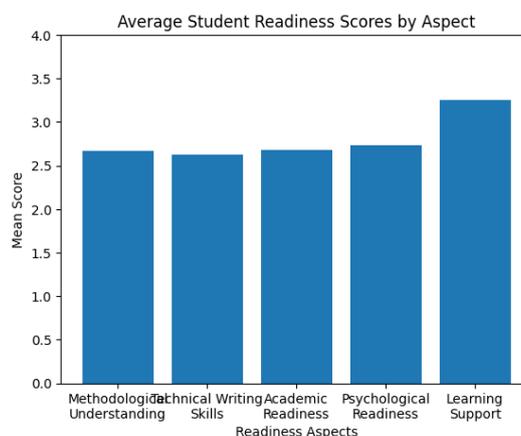

Figure 1. Average Student Readiness Score by Aspect

Figure 1 presents the comparison of mean readiness scores across the five measured aspects. Learning support shows the highest score (3.25), indicating strong perceived external support. Psychological readiness ranks second (2.73), suggesting students generally feel motivated and confident. The aspects of methodological understanding (2.67) and academic readiness (2.68) remain moderate, indicating the need for deeper application and literacy practice. Technical skills show the lowest score (2.62), highlighting the most critical area for improvement. Overall, the figure illustrates a gap between external learning support and students' internal readiness, particularly technical writing competence, which provides a basis for instructional implications and recommendations.

Table 3. Average Student Readiness Score by Aspect, Item Count, and Maximum Score (n = 35)

Aspect of readiness	k (items)	Max score (4 × k)	Mean score	Category*	Rank
Understanding of research methodology concepts	k1	4k1	2.67	Moderate	4
Technical skills in research report preparation	k2	4k2	2.62	Moderate	5
Academic readiness	k3	4k3	2.68	Moderate	3
Psychological readiness	k4	4k4	2.73	Moderate	2
Learning support	k5	4k5	3.25	High	1
Total	**21**	**84**			

*Category based on your score ranges: 3.26–4.00 = Very High; 2.51–3.25 = High; 1.76–2.50 = Moderate; 1.00–1.75 = Low.

Discussion

The results showed that students' readiness to prepare research reports was in the moderate category, with clear variation across readiness aspects. The mean scores ranged from 2.62 to 3.25 on a four-point scale. Learning support obtained the highest mean score (3.25), while technical writing skills achieved the lowest (2.62). Methodological understanding (2.67), academic readiness (2.68), and psychological readiness (2.73) were also in the moderate

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category. This profile indicates that readiness is not a single attribute. It emerges from the interaction between students' internal readiness and external support from the learning environment. This pattern aligns with the concept of learning readiness, which views readiness as a combination of cognitive, skills-based, and affective conditions that enable individuals to engage effectively in learning activities (Shandy, 2024; Talib et al., 2025b; Wang et al., 2018).

Learning support received the highest score, suggesting that students perceived lecturers' guidance, course materials, and the examples and exercises provided in the Research Methodology course as key enablers of research report preparation. This finding is consistent with the view that a supportive learning environment that provides guidance, modeling, and opportunities for active engagement is essential for research-based education (Belawati et al., 2023; Dagdag & Calimag, 2023; Inganah et al., 2023). However, the results also indicate that strong learning support does not automatically translate into strong technical and methodological readiness. A plausible explanation is that support may be experienced primarily as conceptual guidance, while opportunities for sustained writing practice and iterative revision remain limited. When students rarely engage in staged report-writing tasks, the course may strengthen perceived support without producing equivalent gains in applied writing competence.

The lowest score in technical writing skills highlights a gap between conceptual understanding and students' ability to apply what they have learned. This finding supports evidence that students may recognize the formal structure of a research report but still struggle to develop coherent scientific arguments and integrate evidence effectively (Adolat, 2024; Dello Iacono et al., 2024; Milenković & Stevanić, 2025). In this context, research report writing appears to be treated primarily as a format-driven task rather than as an intellectual process that requires integration of data, theory, and scientific reasoning. Therefore, Research Methodology instruction may need to shift from explaining report components to training students to produce and revise complete sections through guided drafting, targeted feedback, and explicit modeling of argument construction.

Similarly, findings on methodological understanding suggest that students possess basic knowledge of research methodology but do not consistently apply it to authentic research situations. This aligns with the argument that students' understanding of research methods often remains at a declarative level and does not progress to procedural and strategic competence (Hoang, 2020). These results imply that concept-heavy instruction alone is insufficient to develop comprehensive readiness for research reporting. Students may benefit more from structured decision-making tasks, such as selecting a design based on a given research problem, justifying sampling and instruments, and aligning analysis procedures with research questions.

In terms of academic readiness, students demonstrated awareness of academic language and writing ethics, yet many still experienced difficulties in using credible scholarly sources and applying citation practices consistently. This reinforces the academic literacy perspective that academic writing is a social and disciplinary practice that develops through participation and experience, not merely through knowledge of technical rules (Hamidy et al., 2023; Zulnaidi, Mafarja, Rahim, et al., 2024). Limited exposure to authentic academic literacy practices, such as working with journal articles as primary references and practicing citation within real writing tasks, may constrain students' academic readiness. As a practical implication, the course may need to incorporate routine literature-based tasks, short annotated summaries, and citation exercises that are embedded directly within the report-writing process.

Psychological readiness showed a relatively higher score, indicating that students generally reported sufficient motivation and confidence to prepare research reports. This pattern suggests that the primary challenges are less affective and more related to technical competence and methodological application. Motivation alone cannot compensate for gaps in procedural

skills. Students need structured learning experiences that directly support the development of applied writing competence so that readiness can develop in a balanced manner. A staged writing model can be implemented through a sequence of tasks, for example: drafting the background and problem statement, revising based on feedback, drafting the method section with justification, and revising again, before moving to results and discussion.

The novelty of this study lies in positioning student readiness as the central construct, rather than treating it as an implicit background factor in evaluating research report quality. While prior research has largely emphasized writing errors or the quality of final research report products (Hoang, 2020; Milenković & Stevanić, 2025), this study highlights that research report quality is shaped by multidimensional readiness at the outset. The finding that high learning support is not necessarily proportional to technical readiness also challenges the assumption that improving instructional resources alone will automatically improve students' research report writing competence. Moreover, integrating learning readiness and academic literacy perspectives offers a stronger conceptual basis for understanding readiness in research methodology learning. Readiness is not limited to mastery of methodological concepts. It also includes preparedness to participate meaningfully in the academic practice of research writing. These findings provide an empirical basis for Research Methodology instruction that prioritizes staged writing tasks, intensive mentoring, and continuous feedback.

This study has several limitations that should be considered when interpreting the findings. First, the sample involved only 35 students from a single study program, which limits the generalizability of the results to other contexts. Second, the study relied on self-reported questionnaire data, which may not fully reflect students' actual performance in writing research reports. Third, the descriptive design does not allow causal conclusions regarding which instructional factors most strongly influence readiness. Future studies should triangulate questionnaire data with document analysis of students' research reports and interviews to capture readiness more comprehensively. Further research may also test targeted instructional interventions, such as structured writing workshops or iterative feedback cycles, to examine their effectiveness in strengthening technical writing skills and applied methodological competence. Overall, this study not only supports earlier findings but also emphasizes the importance of mapping students' readiness before designing instructional interventions. A learning approach that targets applied readiness is expected to reduce the gap between available learning support and students' actual ability to produce high-quality research reports.

Conclusion

This study provides an empirical overview of students' readiness to prepare research reports in a Research Methodology course. Overall readiness was at a moderate level, indicating that students show initial readiness but are not yet sufficiently prepared to complete research report writing independently and comprehensively. In this study, readiness is reflected across five dimensions: methodological understanding, technical writing skills, academic readiness, psychological readiness, and learning support. The findings show that learning support was relatively high, reflecting students' positive perceptions of course materials, lecturer guidance, and the examples and exercises provided during the course. However, technical writing skills remained the weakest aspect of readiness. This gap indicates that strong external learning support does not automatically translate into strong applied competence in research report writing. Therefore, Research Methodology instruction should place greater emphasis on structured writing practice, staged drafting tasks, intensive mentoring, and continuous feedback to strengthen students' technical skills and methodological application. Conceptually, this study

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reinforces that readiness to prepare research reports is a multidimensional construct and should be understood as preparedness to engage meaningfully in the academic practice of scientific writing, not merely as knowledge of research methodology concepts.

This study has several limitations. First, the sample included only 35 students from a single study program within one institution, which limits the generalizability of the findings. Second, data were collected using a self-report questionnaire, so the results may not fully represent students' actual performance in writing research reports. Third, the descriptive design does not allow causal conclusions about which learning factors influence readiness or how readiness affects the quality of students' research reports. Future studies should involve more diverse participants and triangulate survey findings with document analysis of students' research reports and qualitative inquiry. Further research should also develop and evaluate instructional designs that explicitly target technical writing competence and methodological application through iterative writing and feedback cycles.

Conflict of Interest

The author declares no conflict of interest.

Authors' Contributions

The main author, N.K.M., understood the concept of the research presented and was responsible for data collection, theory development, and actively participated in theory development, methodology, organization, and data analysis. The second author, R.N.M., actively participated in theory development, discussion of research results, approval of the final version of the work, data collection and data analysis. All authors declare that the final version of this paper has been read and approved. The total percentage of contributions to the conceptualization, preparation, and correction of this paper is as follows: N.K.M.: 70%, and R.N.M: 30

Data Availability Statement

The authors declare that data sharing is not possible, as no new data was created or analyzed in this study.

References

Adolat, D. (2024). Development and implementation of the teaching methodology of the higher mathematics course based on practice. *International Journal of Pedagogics*, *4*(10). https://doi.org/10.37547/ijp/volume04issue10-12

Batiao, C. A., Yazon, A. D., Manaig, K. A., Sapin, S. B., & Tamban, V. E. (2023). Enhancing Readiness and Mathematics Performance in Face-to-Face Learning Among Grade 7 Students: A Descriptive-Correlational Study. *Applied Quantitative Analysis*, *3*(1). https://doi.org/10.31098/quant.1598

Belawati, T., Daryono, D., Sugilar, S., & Kusmawan, U. (2023). Development of an instrument to assess independent online learning readiness of high school students in Indonesia. *Asian Association of Open Universities Journal*, *18*(1). https://doi.org/10.1108/AAOUJ-09-2022-0139

Dagdag, J. D., & Calimag, N. A. (2023). Scale development and investigation of self-directed learning readiness in Mathematics among Filipino college students. *Journal of Research, Policy & Practice of Teachers & Teacher Education*, *13*(1). https://doi.org/10.37134/jrpptte.vol13.1.5.2023

Dello Iacono, U., Pierri, A., & Taranto, E. (2024). Peer Review Methodology in a Blended Course for Mathematics Teacher Education. *International Journal for Technology in Mathematics Education*, *26*(2). https://doi.org/10.1564/tme_v26.2.01

Evin Gencel, I., & Saracaloğlu, A. S. (2018). The Effect of Layered Curriculum on Reflective Thinking and on Self-Directed Learning Readiness of Prospective Teachers. *International Journal of Progressive Education*, *14*(1), 8–20. https://doi.org/10.29329/ijpe.2018.129.2

Hamidy, A., Maula, I., & Lam, K.-F. T. (2023). The influence of online learning readiness on mathematics achievement with mathematics self-efficacy as an intervening variable. *Al-Jabar : Jurnal Pendidikan Matematika*, *14*(2). https://doi.org/10.24042/ajpm.v14i2.17929

Hoang, N. T. (2020). A model of organizing activities for training metacognitive skills for primary education students in Mathematics teaching methodology courses. *Vietnam Journal of Education*, *4*(1). https://doi.org/10.52296/vje.2020.6

Inganah, S., Rizki, N., Choirudin, C., Farooq, S. M. Y., & Susanti, N. (2023). Integration of Islamic Values, Mathematics, and Career Readiness Competencies of Prospective Teachers in Islamic Universities. *Delta-Phi: Jurnal Pendidikan Matematika*, *1*(1). https://doi.org/10.61650/dpjpm.v1i1.31

Miguel, D. F., Sevil-Serrano, J., Penãrrubia-Lozano, C., & Abós, Á. (2020). Effect of the methodological combination based on flipped classroom and peer instruction on the grades of Physical Activity and Sport Sciences university students. *Retos*, (41). https://doi.org/10.47197/RETOS.V0I41.83984

Milenković, A., & Stevanić, J. (2025). Integrating Cooperative Learning in Distance Education for Methodology of Teaching Mathematics Course. *Pedagogika-Pedagogy*, *97*(2). https://doi.org/10.53656/ped2025-2.06

Morgan, C. (2020). Writing in the Mathematics Classroom. *Writing Mathematically*, 32–46. https://doi.org/10.4324/9780203017715-6

Shandy, A. N. (2024). Student Readiness in Mathematics in The New School Year 2024-2025. *Journal of Social Sciences and Cultural Study*, *1*(2). https://doi.org/10.61857/jsscs.v1i2.52

Talib, S. A., Nasri, N. M., & Mahmud, M. S. (2025a). Experts teachers' point of view on mathematics teachers' readiness in becoming professional teachers. *Journal of Education and Learning*, *19*(2). https://doi.org/10.11591/edulearn.v19i2.21857

Talib, S. A., Nasri, N. M., & Mahmud, M. S. (2025b). The readiness of mathematics teachers as agents of change: a recent comprehensive review. *International Journal of Evaluation and Research in Education*, *14*(2). https://doi.org/10.11591/ijere.v14i2.30291

Turan, M. B., & Koç, K. (2018). The impact of self-directed learning readiness on critical thinking and self-efficacy among the students of the school of physical education and sports. *International Journal of Higher Education*, *7*(6). https://doi.org/10.5430/ijhe.v7n6p98

Wang, Z., Utemov, V. V., Krivonozhkina, E. G., Liu, G., & Galushkin, A. A. (2018). Pedagogical readiness of mathematics teachers to implement innovative forms of educational activities. *Eurasia Journal of Mathematics, Science and Technology Education*, *14*(1). https://doi.org/10.12973/ejmste/80613

Zulnaidi, H., Mafarja, N., & Oktavika, E. (2024). The readiness of IR4.0: Morality and technology integration among mathematics teachers. *STEM Education*, *4*(1). https://doi.org/10.3934/steme.2024001

Zulnaidi, H., Mafarja, N., Rahim, S. S. A., & Salleh, U. K. M. (2024). Ethical mediation: The influence of mathematics teachers cooperation on readiness for the industrial revolution era in Indonesia and Malaysia. *Acta Psychologica*, *243*. https://doi.org/10.1016/j.actpsy.2024.104151

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