

Analysis of Global Competence of Elementary School Teacher Education Students

Nur Fadillah¹, Bunyamin Maftuh^{2*}, Ernanwulan Syaodih³, and Mubarak Somantri⁴

^{1,2,3,4} Elementary Education, Universitas Pendidikan Indonesia, Bandung, Indonesia

¹ Elementary School Teacher Education, Universitas Negeri Padang, Padang, Indonesia

*bunjaminmaftuh@upi.edu

Abstract. Increasingly integrated global developments require every individual to possess global competencies, including prospective elementary school teachers who must be able to educate students to become knowledgeable, tolerant, and responsible global citizens who are able to adapt to globalization. However, various studies indicate that the global competency of university students in Indonesia is still relatively low. This study aims to describe the actual condition of global competency among elementary school teacher education students. This study uses a descriptive quantitative approach with elementary school teacher education students as respondents. The research instrument includes three main components of global competency: knowledge, skills, and attitudes/values, which are developed based on four dimensions of global competence. However, in this article, the focus is only on discussing the knowledge component of the global competency of elementary school teacher education students. The results of the study indicate that the knowledge component of the global competency of students still tends to be low. These findings indicate the need for learning innovation, whether in the form of developing learning models or using media and other things that can improve the knowledge component, among elementary school teacher education students in facing global challenges.

Keywords: Global Competence; Elementary School Teacher Education Students; Global Perspective; Global Issues

INTRODUCTION

The globalization of the 21st century has brought profound changes to everyday life, including the ways in which people interact, work, and learn across different parts of the world. An increasingly interconnected world demands individuals to develop the ability to understand and appreciate cultural diversity, communicate across borders, and think critically about global issues. In the field of education, these demands have given rise to the need for global competence, understood as a set of knowledge, skills, attitudes, and values that enable individuals to act as active, responsible, and socially just global citizens (Cuccurullo & Cinganotto, 2020; Liu, 2024). For elementary school teacher education students, who are future elementary school teachers, global competence is particularly crucial, as they serve as the first agents in shaping students' character and global awareness. Teachers with strong global competence are able to instill values of tolerance, cross-cultural collaboration, and concern for humanitarian issues in elementary school students from an early age.

Previous studies have highlighted the importance of strengthening global competence among pre-service teachers. Triwiyanto et al. (2024) stated that global competence is essential for

higher education in Indonesia to compete internationally, emphasizing skills that enable success in global academic environments. Reimers (2020) also underscored the role of teacher education in preparing educators who are sensitive to global diversity. Meanwhile, the OECD (2018), through the *Programme for International Student Assessment (PISA)*, introduced four key dimensions of global competence: understanding global issues, recognizing others' perspectives, engaging openly across cultures, and taking action for collective well-being and sustainability.

Several previous studies have examined global competence among teachers and pre-service teachers; however, most have focused on conceptual discussions or general descriptive analyses without providing a comprehensive mapping of each dimension of global competence (Francisco, 2024; Jiaxin et al., 2024; Karanikola, 2022; Safitri et al., 2025). This study offers novelty by providing a detailed analysis of the global competence profiles of elementary school teacher education students based on measurable indicators derived from the four OECD dimensions, thus presenting a more factual and contextual understanding. Reimers (2009) argued that formal education systems in many countries have not systematically embedded global awareness into the curriculum, leading to graduates who lack sufficient understanding of the challenges and opportunities of an interconnected world. Mansilla & Jackson (2011) further noted that global education is not merely about knowledge acquisition but also about the development of skills and attitudes. Without cross-perspective understanding, individuals are prone to stereotyping, cultural bias, and exclusivism—attitudes that contradict the essence of diversity.

Although research on global competence has grown significantly, studies that specifically examine the global competence of students in Elementary School Teacher Education programs in Indonesia remain highly limited, both in terms of context and methodological approaches. Most previous studies have focused on in-service elementary school teachers or pre-service teachers in general, resulting in a lack of detailed understanding of the readiness of future elementary school teachers to meet the demands of the Kurikulum Merdeka, particularly the dimension of global diversity.

In an increasingly interconnected world, the demand for teachers to equip students with the ability to become global citizens is stronger than ever. In the Indonesian education context, especially within elementary teacher preparation programs, a number of distinct characteristics and challenges must be addressed. These challenges relate to the ongoing transformation toward the Kurikulum Merdeka, which emphasizes the Profil Pelajar Pancasila

—particularly the global diversity dimension that has not yet been fully integrated systematically into teacher education curricula. Teacher education in Indonesia continues to face disparities in quality across regions, limited international exposure, and uneven understanding of the importance of global competence in instructional practices. These conditions highlight a gap between global expectations and the preparedness of teacher education institutions, indicating the need for more in-depth research to understand the extent to which pre-service elementary teachers can develop global competence in line with 21st-century educational demands.

The main issue addressed in this research is the profile of global competence among Elementary School Teacher Education students. Specifically, it asks: to what extent have Elementary School Teacher Education students mastered the knowledge component of global competence necessary to meet the challenges of 21st-century education? Based on preliminary literature review and educational context, it is assumed that Elementary School Teacher Education students' levels of global competence vary and tend to be relatively low in the knowledge component.

To address this issue, the study employed a descriptive-quantitative approach using an instrument developed based on the OECD (2018) framework. Data were collected through a questionnaire administered to Elementary School Teacher Education students, encompassing knowledge components of global competence. Because, this article focuses specifically on analyzing the knowledge component. Data analysis was conducted to map general tendencies and identify aspects that need to be strengthened within the curriculum and learning experiences of pre-service elementary school teachers.

The purpose of this study is to comprehensively analyze the factual condition of the knowledge component of global competence among Elementary School Teacher Education students based on the four main OECD dimensions. The results are expected to provide empirical contributions to the development of globally oriented teacher education policies and practices, serve as a foundation for designing learning models that foster global competence, and strengthen the role of elementary education in preparing young generations who are internationally competitive and humanistically minded.

METHODOLOGY

Research Design

This study employed a quantitative approach aimed at analyzing the level of global competence among elementary school teacher education students. This approach was chosen because it allows the researcher to obtain an empirical and measurable overview of the knowledge, skills, and attitudes and values that constitute students' global competence. The research design focuses on mapping existing conditions and interpreting measurement results based on the theoretical framework established by the OECD (2018).

Research Method

This study employed a survey research approach using descriptive analysis. Data were collected through a structured questionnaire developed based on the four main dimensions of global competence proposed by the OECD (2018). The questionnaire was designed in the form of multiple-choice questions to measure the knowledge component of global competence among elementary school teacher education students.

The development of the instrument in this study was carried out through a systematic process based on the OECD global competence framework, which consists of four main dimensions: understanding global issues, intercultural interaction skills, attitudes toward diversity, and responsible action. These dimensions were then translated into operational indicators, which served as the basis for constructing the individual items. Item development was conducted through an extensive literature review, an analysis of instruments used in previous studies, and adjustments to the local context of elementary teacher education in Indonesia. This stage resulted in an initial draft of the instrument comprising several items representing the knowledge component.

Once the draft instrument was completed, content validation was conducted through expert judgment involving specialists in global education and elementary teacher education. The experts assessed the relevance, clarity, and alignment of each item with the indicators and the construct of global competence. Their feedback and recommendations were used to revise item wording, remove overlapping items, and refine the dimensional structure to strengthen the instrument both theoretically and substantively. In addition to content validation, a readability test was conducted with a small group of Elementary School Teacher Education students to ensure that the items were understandable and appropriate for the respondents' literacy level. The next stage involved testing the instrument's reliability through a pilot test with Elementary School Teacher Education students outside the main research sample. Through these procedures, the instrument was confirmed to be valid, reliable, and appropriate

for comprehensively measuring the global competence of Elementary School Teacher Education students.

Research Location

This study was conducted in the Department of Elementary School Teacher Education, Faculty of Education, Universitas Negeri Padang, which includes three campuses: the Air Tawar Campus, the Bandar Buat Campus, and the Sawah Lunto Campus. The research sites were selected purposively. The study is situated within the context of a higher education environment that is undergoing transformation toward becoming a world-class university, with the primary challenge being the readiness of pre-service teachers to face the demands of 21st-century education.

Research Subjects

The subjects of this study were Elementary School Teacher Education (PGSD) students in semesters 3–7 who had completed the Global Perspectives course. A total of 123 students participated in the study, selected through proportional random sampling from the campuses mentioned above. The inclusion criteria for participants were: (1) active enrollment as PGSD students in semesters 3–8, (2) completion of the Global Perspectives course, and (3) willingness to participate as research respondents.

Data Collection Procedure

Data were collected using an online questionnaire distributed via the Google Form platform to facilitate access to respondents across different campuses. Prior to completing the questionnaire, participants were provided with an explanation ensuring the confidentiality and anonymity of the data they submitted.

Data Analysis Technique

The collected data were analyzed using descriptive statistics to illustrate the level of students' global competence in each component. The results were then interpreted comparatively with reference to the OECD global competence standards and relevant literature, in order to obtain a comprehensive understanding of the strengths and areas for improvement in the global competence of elementary school teacher education students.

RESULTS AND DISCUSSION

Results

After distributing the multiple-choice questionnaire assessing the knowledge component of global competence to students from the three campuses mentioned above, the responses were collected and scored. Based on the analysis of data from 123 Elementary School Teacher Education students, the following descriptive statistics were obtained:

Table 1. Descriptive Statistics of the Knowledge Component of Students' Global Competence

Descriptive Statistics		Bootstrap ^a					
		Statistic	Std. Error	Bias	Std. Error	95% Confidence Interval	
						Lower	Upper
Skor	N	123		0	0	123	123
	Range	60					
	Minimum	30					
	Maximum	90					
	Mean	70.41	1.079	.02	1.07	68.29	72.52
	Std. Deviation	11.970		-.096	.991	10.015	13.896
	Variance	143.276		-1.319	23.658	100.297	193.102
Valid N (listwise)	N	123		0	0	123	123

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Based on the descriptive statistical data above, the mean score of the knowledge component of global competence among Elementary School Teacher Education students was 70.41. This mean score was then categorized to determine the extent of students' achievement in the knowledge component of global competence, as shown in the table below:

Table 2. Categories of Global Competence Assessment

Score Range	Category
$90 \leq N < 100$	Very High
$75 \leq N < 90$	Haigh
$55 \leq N < 75$	Moderate
$40 \leq N < 55$	Low
$0 \leq N < 40$	Very Low

Source: (Yuchang et al., 2016)

Based on the assessment categories presented in the table above, the average global competence of Elementary School Teacher Education students falls within the moderate category. Therefore, students' global competence still needs significant improvement. Furthermore, based on the instrument measuring the knowledge component of global competence, there were 10 items, each with its own mean score as shown in the following table:

Table 3. Mean Scores of the Knowledge Component of Global Competence per Question Item

Descriptive Statistics

		Bootstrap ^a				
				95% Confidence Interval		
		Statistic	Bias	Std. Error	Lower	Upper
Question_1	N	123	0	0	123	123
	Mean	5.61	-.01	.44	4.72	6.42
	Std. Deviation	4.983	-.018	.060	4.813	5.020
Question_2	N	123	0	0	123	123
	Mean	7.24	-.02	.41	6.34	7.97

	Std. Deviation	4.491	-.015	.205	4.041	4.836
Question_3	N	123	0	0	123	123
	Mean	5.37	-.01	.44	4.47	6.26
	Std. Deviation	5.007	-.019	.043	4.858	5.020
Question_4	N	123	0	0	123	123
	Mean	6.99	.00	.41	6.18	7.72
	Std. Deviation	4.605	-.020	.178	4.210	4.879
Question_5	N	123	0	0	123	123
	Mean	7.56	.01	.40	6.83	8.37
	Std. Deviation	4.312	-.029	.247	3.705	4.672
Question_6	N	123	0	0	123	123
	Mean	7.07	.01	.41	6.26	7.89
	Std. Deviation	4.569	-.027	.191	4.100	4.858
Question_7	N	123	0	0	123	123
	Mean	7.32	.00	.41	6.59	8.13
	Std. Deviation	4.449	-.025	.218	3.915	4.761
Question_8	N	123	0	0	123	123
	Mean	7.56	.01	.39	6.83	8.37
	Std. Deviation	4.312	-.030	.243	3.705	4.672
Question_9	N	123	0	0	123	123
	Mean	7.72	-.02	.38	6.91	8.46
	Std. Deviation	4.210	-.013	.249	3.629	4.639
Question_10	N	123	0	0	123	123

Mean	7.97	.01	.37	7.24	8.70
Std. Deviation	4.041	-.034	.283	3.378	4.491
Valid N (listwise) N	123	0	0	123	123

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Based on Table 3 above, the average number of correct responses per item was as follows: question 1 (5.61), question 2 (7.24), question 3 (5.37), question 4 (6.99), question 5 (7.56), question 6 (7.07), question 8 (7.56), question 9 (7.72), and question 10 (7.97).

Next, the responses of the students to the questions measuring the knowledge component of global competence can be seen in the figure below, which presents the number of students who answered each item correctly.

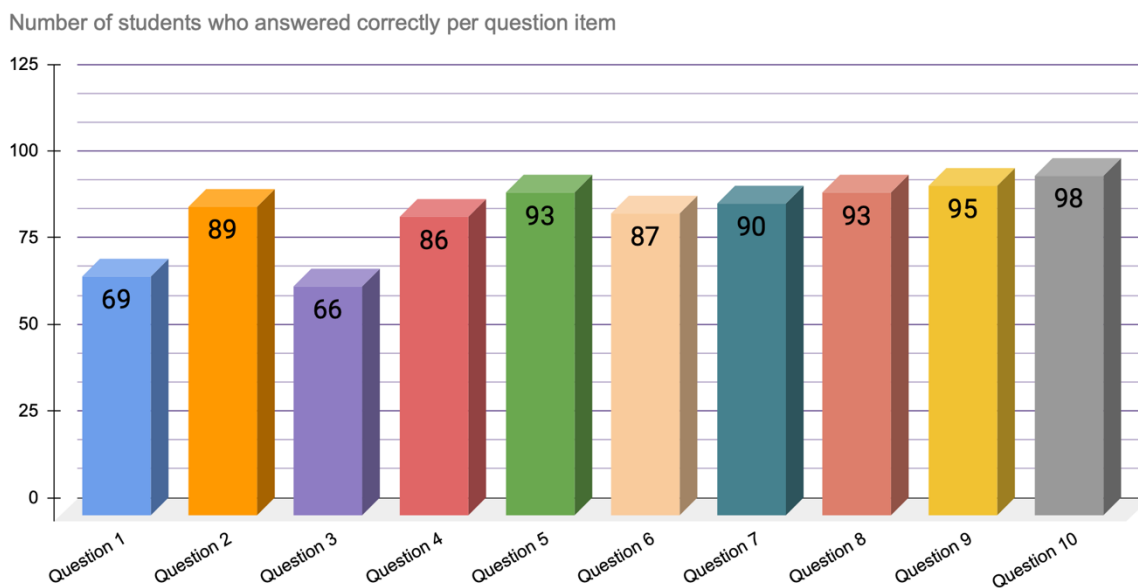


Figure 1. Number of students who answered correctly per question item

Discussion

This study aims to describe the factual conditions of how well PGSD students have mastered the knowledge component of global competence. The results show an average score of 70.41,

which falls into the moderate category, indicating that students possess a foundational level of global knowledge but have not yet reached the level of mastery expected of future teachers who will be responsible for fostering global awareness in elementary schools.

Based on the item-level data presented in Table 3, the distribution of correct responses among the 123 participating students varies across items. Some aspects show relatively stronger mastery, while several items remain low. This pattern suggests that students tend to have conceptual understanding of certain global issues but lack consistency across the broader dimensions of global knowledge. These findings support existing literature, which conceptualizes global competence as a multidimensional construct that does not develop uniformly without intentional instructional interventions (OECD, 2018).

The data in Figure 1 further illustrate the variation in PGSD students' understanding of fundamental concepts related to global competence. The first question, "What I understand by the term global is...", was correctly answered by only 69 students, making it one of the lowest-performing items. This highlights the limited conceptual understanding students have regarding the term "global." Previous studies have shown that pre-service teachers often interpret globalization narrowly, associating it mainly with technology or economics rather than with broader socio-cultural interconnectedness (Kenreich, 2014). The low performance on this item underscores the need for stronger conceptual reinforcement at the early stages of instruction.

The second question, which asked about the definition of global competence, showed an improvement, with 89 students answering correctly. This indicates that after receiving instructional stimulation or exposure to the definition, students tend to better understand the general structure of global competence. OECD (2018) states that global competence consists of four key dimensions: openness, understanding global issues, intercultural interaction, and sustainable action. The relatively high score suggests that definitional concepts are easier for students to grasp compared to the broader meaning of the term "global."

The third question, which required students to identify examples of global issues, received 66 correct responses, making it the second-lowest score after the first item. This indicates that students struggle to distinguish global issues from local issues. This finding is consistent with Cushner (2011) who reported that elementary teacher education students often generalize all social issues as global issues. Such limited conceptual distinction affects their ability to analyze cross-national issues, which is a crucial component of global competence.

For the fourth question regarding the characteristics of global knowledge, the number of students who answered correctly increased to 86. This improvement may be attributed to the more concrete nature of the knowledge being assessed and its frequent discussion in global learning literature. According to Mansilla & Jackson (2011) global knowledge involves understanding across contexts and perspectives. This result indicates that students are better able to identify the characteristics of global knowledge when provided with clear and structured situations.

The fifth question, which asked about the relevance of global competence for future teachers, received 93 correct responses, indicating a high level of awareness among students about the importance of global competence for the teaching profession. This finding aligns with Köş & Çelik (2025), who reported that pre-service teachers generally demonstrate high awareness of the urgency of global education, despite having limited conceptual understanding. Such awareness is crucial as a motivational foundation for the further development of global competence.

For the sixth question concerning basic knowledge within global competence, 87 students answered correctly. This number is consistent with the previous items measuring the knowledge dimension. Reimers (2020) argues that foundational understanding of global issues and cross-cultural perspectives is a core component of global competence that must be strengthened from the outset. These results indicate that students possess sufficient initial knowledge, though they still require deeper learning through authentic practice and experience.

The seventh question, which pertained to intercultural understanding, received 90 correct responses. This indicates that the intercultural understanding dimension is relatively well mastered by the students. Research by Leung & Chiu (2010) suggests that Indonesian students tend to exhibit high cultural sensitivity due to living in a multicultural society. This national context of diversity likely contributes positively to their performance on this item.

For the eighth question on identifying global issues that are important for students to understand, 90 students also responded correctly. This reinforces earlier findings showing that students find it easier to recognize relevant global issues when options are more concrete. Unesco (2015) emphasizes that understanding global issues through real-world case studies can enhance students' global literacy.

The ninth question, which assessed students' understanding that global competence encourages broader perspectives, received 95 correct answers, one of the highest scores. This indicates that students recognize how global competence helps them understand the interconnectedness among nations. According to Banks (2015) global education helps pre-service teachers develop critical awareness of the world and their place in it. The high score for this item reflects students' strong affective readiness to engage in global learning.

The final question on the application of global competence in teaching received the highest score, with 98 correct responses. This demonstrates that students understand practical applications more readily than theoretical concepts. This finding aligns with Ottley et al. (2020) who found that pre-service teachers more easily grasp global concepts when they are connected to classroom practices, such as project-based learning on global issues or cross-cultural collaborations. These results indicate that experiential learning approaches are highly effective in developing global competence among Elementary School Teacher Education students.

Overall, the findings of this study illustrate a progression of understanding from abstract to contextual concepts: the more concrete the global issue, the higher the students' level of knowledge. This indicates the need for instructional designs that link global theories with local contexts through contextual and project-based learning approaches. The analysis confirms that the knowledge component of global competence among Elementary School Teacher Education students remains at a moderate level, and thus requires improvement through learning approaches that connect global concepts with local practices and broaden intercultural experiences.

These findings support Mansilla & Jackson (2011) view that global competence requires a balance between "knowing about the world" and "acting in the world." The pre-service elementary school teachers who participated in this study demonstrated a foundational understanding of globalization but had not yet fully developed cross-cultural critical thinking skills. This result is consistent with studies showing that Indonesian pre-service teachers tend to exhibit strength in cognitive-informational aspects but weakness in global reflection and intercultural reasoning (Murtono et al., 2025; Panggabean, 2012; Triwiyanto et al., 2024; Zurnali & Sujanto, 2018). In addition, Teng & Cosier (2024) emphasized that cultural capital and curriculum internationalization are key factors influencing the level of global competence.

Based on the findings, several factors may explain why the knowledge component of global competence among Elementary School Teacher Education students remains in the moderate

category: the curriculum has not yet explicitly and comprehensively integrated global issues; the teaching models and methods remain cognitively oriented, with limited authentic intercultural or project-based activities; and the lack of cross-cultural or international experiences among most students. These explanations align with literature reviews suggesting that the integration of active pedagogy, international experiences, and rubric-based assessment significantly enhances the development of global competence (Jiaxin et al., 2024).

Therefore, to strengthen the knowledge component of global competence among Elementary School Teacher Education students, the following recommendations are proposed: integrate project-based learning on issues such as environment and humanitarian concerns to connect knowledge with real-world contexts (Teng & Cosier, 2024); facilitate cross-campus or international virtual exchange collaborations to provide more authentic intercultural experiences (Nopas & Kerdsomboon, 2024); and evaluate and revise the teacher education curriculum to accommodate learning outcomes aligned with global citizenship education (Alvero, 2025; Renteria-Vera et al., 2023).

Finally, as this study focused only on the knowledge component of global competence, future research should include skills, attitudes, and values to provide a more comprehensive picture of pre-service teachers' global competence development.

CONCLUSION

The conclusions of this study directly address the main research question: to what extent do elementary teacher education students (PGSD) understand global competence, including the basic concepts of globalization, global issues, intercultural understanding, and their application in teaching. The analysis reveals that students' understanding varies across items, with lower achievement on basic concepts of globalization and the identification of global issues, but very high achievement on applied aspects related to the implementation of global competence in classroom practice. This indicates that students find it easier to grasp global competence when it is presented in concrete and pedagogical contexts, rather than in abstract foundational concepts. Overall, the findings suggest that students' global competence ranges from moderate to high in certain aspects, yet still requires targeted strengthening in conceptual knowledge, which serves as the foundation of comprehensive global competence.

While providing valuable insights into the profile of PGSD students' global competence, this study has several limitations. First, the data focused only on the knowledge component and were collected using multiple-choice, self-report items, which may not fully capture students' analytical and performative abilities in real-world contexts. Second, the sample was drawn from a single institution, limiting the generalizability of the findings. Therefore, future research is recommended to employ authentic assessments such as case studies, micro-teaching observations, or issue-based project work to measure students' competence more holistically. Additionally, future studies may compare the effectiveness of different instructional models in enhancing global competence among prospective elementary teachers. Such directions are expected to strengthen the empirical foundation for developing teacher education curricula that are responsive to the demands of 21st-century global dynamics.

The findings reinforce the view that global competence is multidimensional, with knowledge serving as an essential starting point that must be connected to global skills and attitudes. Moreover, the results underscore the need to reformulate the Elementary School Teacher Education curriculum to emphasize contextual learning experiences and collaborative project-based approaches aimed at enhancing students' global competence. Through such efforts, pre-service teachers can develop into globally minded educators who are capable of fostering diversity, tolerance, and social responsibility among their future students from an early age.

REFERENCES

- Alvero, J. C. (2025). Integrating Global Citizenship Competencies into General Education: A Basis for an Enhanced Curriculum Guide in Philippine Higher Education. *Journal of Interdisciplinary Perspectives*, 3(5). <https://doi.org/10.69569/jip.2024.677>
- Banks, J. A. (2015). *Cultural Diversity and Education: Foundations, Curriculum, and Teaching* (6th ed.). Routledge. <https://doi.org/10.4324/9781315622255>
- Cuccurullo, D., & Cinganotto, L. (2020). Fostering Cultural Awareness for a Global Competence: In M. E. Gómez-Parra & C. A. Huertas Abril (Eds.), *Advances in Educational Technologies and Instructional Design* (pp. 125–158). IGI Global. <https://doi.org/10.4018/978-1-7998-2588-3.ch006>
- Cushner, K. (2011). Intercultural Research in Teacher Education: An Essential Intersection in the Preparation of Globally Competent Teachers. *Action in Teacher Education*, 33(5–6), 601–614. <https://doi.org/10.1080/01626620.2011.627306>

- Francisco, J. C. (2024). Student-Centric Perspectives of the 'Why' and 'How' of Fostering Global Competence in Education. *Journal of Higher Education Theory and Practice*, 24(3). <https://doi.org/10.33423/jhetp.v24i3.6834>
- Jiaxin, G., Huijuan, Z., & Md Hasan, H. (2024). Global competence in higher education: A ten-year systematic literature review. *Frontiers in Education*, 9, 1404782. <https://doi.org/10.3389/educ.2024.1404782>
- Karanikola, Z. (2022). Global Competence Measurement in Non-Formal Educational Settings. *European Journal of Development Studies*, 2(4), 54–61. <https://doi.org/10.24018/ejdevelop.2022.2.4.125>
- Kenreich, T. W. (2014). Preservice Social Studies Teachers' Beliefs about Global Education: Tying the Global and Local Together. *International Social Studies Association*, 3(1), 1–16.
- Köş, İ. E., & Çelik, H. (2025). Pre-Service English Language Teachers' Perceptions of Global Competence and Evaluations of Global Education. *Batı Anadolu Eğitim Bilimleri Dergisi*, 16(Özel Sayı 4), 1–28. <https://doi.org/10.51460/baebd.1609437>
- Leung, A. K. Y., & Chiu, C.-Y. (2010). Multicultural Experiences and Intercultural Communication. In *Cultural Processes: A Social Psychological Perspective* (pp. 242–262). Cambridge University Press. <https://doi.org/10.1017/CBO9780511779374.019>
- Liu, J. (2024). A Review of Research on the Concept of Global Competence. *Proceedings of the 2nd International Conference on Global Politics and Socio-Humanities*, 95–99. <https://doi.org/10.54254/2753-7048/70/20241030>
- Mansilla, V. B., & Jackson, A. (2011). *Educating for Global Competence: Preparing Our Youth to Engage the World*. Asia Society and Council of Chief State School Officers.
- Murtono, M., Prayitno, M., Kanzunnudin, M., Saif, G. M. S., & Dwianto, A. (2025). Adaptive Curriculum, Digital Literacy, and Global Collaboration for Enhancing Multicultural Competence in Higher Education. *International Journal of Learning, Teaching and Educational Research*, 24(8), 296–320. <https://doi.org/10.26803/ijlter.24.8.13>
- Nopas, D., & Kerdsoomboon, C. (2024). Fostering Global Competence in Teacher Education: Curriculum Integration and Professional Development. *Higher Education Studies*, 14(2), 1. <https://doi.org/10.5539/hes.v14n2p1>

- OECD. (2018). *PREPARING OUR YOUTH FOR AN INCLUSIVE AND SUSTAINABLE WORLD The OECD PISA global competence framework*. Directorate for Education and Skills.
- Ottley, J. R., Hartman, S. L., Bates, P., & Baker. (2020). Integrating a Global Inclusive Perspective into Coursework for Pre-service Teachers. *Journal of International Special Needs Education*, 23(1), 13–22.
- Panggabean, H. (2012). Peran Pengalaman Studi ke Luar Negeri dalam Membangun Kompetensi Global. *Mindset*, 3, 73–83.
- Reimers, F. (2009). Educating for Global Competency. *International Perspectives on the Goals of Universal Basic and Secondary Education*, Routledge.
- Reimers, F. M. (2020). *Educating Students to Improve the World*. Springer Singapore. <https://doi.org/10.1007/978-981-15-3887-2>
- Renteria-Vera, J. A., Vélez-Castañeda, C. K., Rodríguez-Caro, Y. J., & Peresin, M. S. (2023). Diseño curricular para el desarrollo sostenible y la ciudadanía global: Intervención pedagógica en educación superior. *Entramado*, 20(1). <https://doi.org/10.18041/1900-3803/entramado.1.10106>
- Safitri, D. G. L., Adhe, K. R., Widayanti, M. D., Nashirah, S. Z., & Wisnain, I. (2025). Meningkatkan Kompetensi Global melalui Mobilitas Internasional Mahasiswa. *Prosiding Seminar Nasional Mobilitas Akademik Tahun 2025*, 1–11.
- Teng, Y., & Cosier, M. E. (2024). Influences of cultural capital and internationalization on global competence in higher education: A systematic literature review. *Frontiers in Education*, 9, 1397642. <https://doi.org/10.3389/educ.2024.1397642>
- Triwiyanto, T., Kusumaningrum, D. E., Pramono, P., Arafik, Muh., Nurabadi, A., & Muslikh, B. (2024). Literature Review: Global Competencies and World-Class University Outcomes in Indonesia. *International Research-Based Education Journal*, 6(2), 256. <https://doi.org/10.17977/um043v6i2p256-271>
- Unesco. (2015). *Global Citizenship Education: Topics and learning objectives | UNESCO*. Global Citizenship Education: Topics and Learning Objectives. <https://www.unesco.org/en/articles/global-citizenship-education-topics-and-learning-objectives>

Yuchang, M., Zhonglong, Z., Zhao, Z., & Hui, W. (2016). *Score setting method used for intelligent learning system.*

Zurnali, C., & Sujanto, A. (2018). *ANALISIS KOMPETENSI GLOBAL MAHASISWA PROGRAM KELAS INTERNASIONAL UNIVERSITAS BUDI LUHUR JAKARTA.*