



Portrait of Physical Education Teachers' Readiness for Students with Special Needs: A Case Study in Inclusive Schools

**Ulin Nafi' Fibriani¹, Abdul Rachman Syam Tuasikal², Anung Priambodo³,
Nur Winawan Yunistira Winarno⁴**

^{1,2,3} Sports Education / Faculty Knowledge Sports and Health, Universitas Negeri Surabaya,
Surabaya, East Java, Indonesia

⁴ SDN Pacarkembang IV, Surabaya, East Java, Indonesia

Abstract

Inclusive physical, sports, and health education (PJOK) learning requires teachers' readiness to assist students with special needs (MBK). This study aims to analyze the level of readiness of PJOK teachers in inclusive schools from the dimensions of knowledge, skills, attitudes, and readiness for collaboration and their differences based on inclusive teaching and training experience. The study used a quantitative approach with a descriptive-comparative survey design of PJOK teachers in inclusive schools in Tambaksari District, Surabaya, which was selected through purposive techniques and total sampling. Data were collected using a five-level Likert scale questionnaire that had met validity and reliability tests, then analyzed using descriptive statistics, independent t-tests, and one-way ANOVA. The results showed that the readiness of PJOK teachers was in the good to very good category with an average knowledge of 3.23–4.33, skills 3.73–4.30, attitude 3.83–4.57, and collaboration 3.80–4.40; teachers who participated in inclusive training had a higher readiness score ($M = 199.48$) than teachers who did not participate in the training ($M = 172.00$), while teaching experience showed no significant difference ($F = 0.694$; $p = 0.508$). It was concluded that inclusive training plays an important role in increasing the readiness of PJOK teachers to carry out inclusive learning effectively.

Keywords: *Inclusive Physical Education, PJOK Teacher Readiness, Students with Special Needs, Inclusive Training, Inclusive Schools*

INTRODUCTION

Inclusive education aims to provide equal access for all students, including those with special needs, but various studies show that teachers are not yet fully ready to make this happen, as seen from the still limited understanding of the characteristics and needs of students with special needs, the lack of experience training, as well as lack of adequate support (Afriani et al., 2025). Limitations facilities and lack of professional training to become obstacle main, so that required provision materials, methods, and environment appropriate sports for all students, especially those with needs special (Palei, 2024). For realize learning To be effective inclusive, teachers must be able to understand students' physical, cognitive, and social-emotional abilities, differentiate instruction, and encourage acceptance among students so that all can participate. in accordance ability they .

Inclusive schools as a government program emphasizes that public schools are obliged to accept and serve students with special needs. Special (MBK) (Sriwahyuni & Khermarinah, 2024). Although declaration international confirm importance access education quality in the environment regular, many countries still face challenge in the form of low teacher competence in implementing adaptive PJOK, the minimum training For handling students with special needs special and limited support system education (Dewi et al., 2024; Gutiérrez Rodríguez et al., 2024; Jariono et al., 2022).

Schools need to provide equal educational opportunities to all students, including those with disabilities . need special (MBK) (Qian & Rong, 2023). The Salamanca Declaration and the Framework for Action for Education 2030 have pushing this agenda worldwide, but limitations in ability adaptation learning and lack of training for teachers to hinder its implementation (Lucía & David, 2024). School inclusive sued give chance equal education for students with needs special as confirmed in Salamanca Declaration and Education 2030, however its implementation especially in PJOK which demands adjustment in accordance need physical and characteristics of students often not optimal though has supported regulations (Erlin Mulyadi, 2017; Mulyana et al., 2024; Permendikbud, 2011), temporary study show that teacher readiness to become factor key However Still seldom reviewed in a way deep in PJOK (Laily et al., 2024; Nurul Arifin et al., 2025; Sumane, 2020)context, so that required study For evaluate knowledge, skills, attitudes and support that teachers have so that the rights of students with special needs to receive fair sports learning can be fulfilled.

Literature show existence gap study in inclusive PJOK context, because part big studies more highlighting the class teacher or policy school and only few focus on PJOK teachers, even though they own role strategic in activity physique adaptive ; even existing research is generally evaluate One aspect just like knowledge or attitude without study teacher readiness in general multidimensional covers knowledge, skills, attitudes and abilities collaborate (Calvo et al., 2024)Furthermore, studies specifically examining the readiness of PE teachers for adaptive PE, especially in Indonesia, are still very limited. The lack of research linking teaching experience, inclusive training, and the level of PE teacher readiness on a comparative basis further demonstrates the need for comprehensive and measurable research in this area.

Study This present For fill in emptiness the with evaluate readiness of PJOK teachers based on four dimensions main that is knowledge, skills, attitudes, and readiness collaboration (Suryobroto, 2021). In a way theoretical, findings This research can be a basis for developing a PJOK teacher training program that is more suited to the needs of students

with special needs. specific and contextual (Hristova-Pencheva, 2025). The research findings are expected to be the basis for developing more relevant PJOK training programs, while expanding theoretical studies on the importance of teacher attitudes and pedagogical competencies in inclusive physical education, and providing practical recommendations for policy changes, learning strategies, and school support. The main objective of this study is to determine the level of readiness of PJOK teachers in assisting students with special needs in inclusive schools .

METHOD

Type study

Study This use approach quantitative with design survey descriptive comparative (Palmerola et al., 2024). This design chosen Because allows researchers measure in a way Objective: The level of readiness of PJOK teachers in learning inclusive as well as compare readiness based on experience teaching and participation in training inclusive .

Population

Population study covers all PJOK teachers who teach at the school inclusive in the District Tambaksari, Surabaya. *Purposive sampling technique* used For determine sample with criteria : (1) active PJOK teacher teaching at school inclusive, (2) has experience accompanying students with needs special, and (3) willing become respondents . Considering amount population that meets relatively small and homogeneous criteria, research This applying total sampling, so that all over member population made into sample study (Firmansyah & Dede, 2022).

Data collection technique

Data collected use questionnaire scale adapted five-level Likert scale from the Teacher Training instrument for the Open Education Scale (Rosales-Ricardo et al., 2021). Research instrument covers four dimensions teacher readiness, namely knowledge, skills, attitudes, and readiness collaborate (Jariono et al., 2022; Marchisio et al., 2024). Validity content instrument assessed by three expert education physical inclusive, whereas reliability instrument tested use coefficient *Cronbach's alpha* with minimum value of 0.80.

Data analysis

Data analysis was performed in two stage . First, analysis descriptive used For get average and distribution of the level of readiness of PJOK teachers at each dimensions . Second, analysis inferential done using independent t-test For test difference readiness based on experience teaching . All statistical testing using level significance $\alpha = 0.05$. Approach analysis descriptive and comparative This used For get description readiness of PJOK teachers in general multidimensional as well as identify factors that influence it .

RESULTS AND DISCUSSION

Descriptive Research Results

Table 1. Descriptive Statistics of Physical Education Teacher Readiness per Dimension

No.	Dimensions	Mean Range
1	Knowledge	3.23 – 4.33
2	Skills	3.73 – 4.30
3	Attitude	3.83 – 4.57
4	Collaboration	3.80 – 4.40

Table 1 shows a descriptive analysis that the readiness of PJOK teachers in all dimensions is in a relatively high range of values. The knowledge dimension has an average of 3.23 to 4.33, indicating a variation in readiness from the sufficient to very good category, and the skills dimension has an average of 3.73 to 4.30, indicating that most teachers have good to very good abilities in implementing inclusive PJOK learning. In the attitude dimension, an average of 3.83–4.57 indicates that teachers have a very positive attitude towards students with special needs. Meanwhile, in the collaboration dimension, an average of 3.80–4.40 indicates that teachers' readiness to collaborate with related parties is in the good to very good category, although there are differences between respondents.

Table 2. t-Test Results (Inclusive Training)

No.	Physical Education Teacher Group	Readiness Score
1	Once follow training	199.48
2	Not following yet training	172.00

Table 2 shows that the descriptive analysis of PJOK teachers who had participated in inclusive training received an average readiness score of 199.48, while teachers who had not participated in training received an average score of 172.00.

Table 3. Statistical Test

No.	Statistical Test	Mark
1	Mean difference	27.48
2	<i>t</i>	2,607
3	<i>p</i>	0.014

Table 3 shows that teachers who have attended training have higher readiness scores than teachers who have not. The average difference is 27.48 points.

Table 4. ANOVA Results: Teaching Experience

No.	Experience Teach	Readiness Score
1	< 5 years	201.13
2	5–10 years	195.58
3	≥ 10 years	200.10

Table 4 shows the results of a one-way ANOVA test with relatively similar scores for the readiness of PJOK teachers across all teaching experience groups. Teachers with less than 5 years of experience received an average score of 201.13, teachers with between 5-10 years of experience received an average score of 195.58, and teachers with more than 10 years of experience received an average score of 200.10. The results indicate that length of teaching experience does not affect the readiness of PJOK teachers.

Table 5. ANOVA Statistical Test

No.	ANOVA Statistical Test	Mark
1	<i>F</i>	0.694
2	<i>p</i>	0.508

In Table 4, there is no significant difference in the readiness of PJOK teachers based on teaching experience, according to the results of the one-way ANOVA test. Variations in readiness are not statistically different between teaching experience groups, according to the statistical value $F = 0.694$ and the significance value $p = 0.508$.

Discussion

Study This show that the PJOK teacher is general own good readiness in all dimensions learning inclusive, with attitude inclusive as the most important component (Gohar et al., 2024). However, knowledge technical about characteristics of students with special needs special and abilities For choose activity physique proper adaptation Not yet fully balance belief this, (Jariono et al., 2025). Statement the in line with study (Borges, 2023)that state pattern a fairly common situation in inclusive education practice: teachers are usually well received, but they still face problems with technical competence and adaptive pedagogy . excellent inclusiveness show readiness affective and moral commitment of teachers to accept my student in need special in Physical Education (Marlina, 2017)classes . From a social psychology perspective, attitudes are fundamental to inclusive teaching intentions and behaviors. However, research has shown that positive attitudes alone do not necessarily lead to effective inclusive practices without the support of competencies (knowledge and skills) and resources. An international literature review on Physical Education also found that teachers' attitudes are related to competency beliefs, such as self-efficacy. The review also emphasized that systems should help teachers realize these attitudes. in effective teaching strategies .(Sasikala, 2023) .

There is a difference between "inclusive intention" and "instructional capacity," as demonstrated by the finding that there is a lack of knowledge about specific needs and adaptive activity options. This aligns with the framework of developing competence through significant learning experiences and self-efficacy, which is the belief that you have the ability to do something. When training provides practical experience, concrete examples, feedback, and useful adaptation strategies, research shows that self-efficacy and attitudes are positively related. Training also tends to increase inclusive competence. In other words, to make orientation inclusive become safe, challenging, and equal PJO learning For all students, teachers still need " tools " pedagogical " work (Reina et al., 2019).

The group that had attended training received higher average scores. Theoretically, this finding is consistent with meta-analyses that found that professional development can help implement inclusive practices, especially if it is tailored to the needs of the context, is sustainable, and provides space for practice and training . PJO context, interventions that include practice adaptation activities, experiences direct, and modeling inclusion strategies can increase belief competence and quality taking decision pedagogy (Donath et al., 2023).

This makes conceptual sense because teaching experience is general and not necessarily synonymous with inclusive teaching experience or competency. with study (Tapales, 2025) which shows that Teacher readiness varied significantly by age, but did not find statistically significant variation in readiness based on educational attainment or length of teaching experience. Many studies have shown that without exposure to inclusive training, structured practice opportunities, and school support, demographic variables and length of teaching are often not strong predictors. Teaching experience can lead to "teaching maturity." However, experience Study certain, such as training, practice adaptation, mentoring, and engagement in handling of students with special needs special, tend to more impact on increasing readiness inclusive (Gonzalez-Alonso et al., 2015).

Cross-role support mechanisms face challenges, although effective collaboration is still limited to communication with parents and the school's teacher educators (PJO). In the literature, collaboration between PJO teachers, PJO teachers, parents, and school or related professionals is considered a crucial practice to ensure learning adjustments, consistent support, and realistic goal setting for students with special needs. Studies on collaboration in inclusive education indicate that common obstacles include disagreements, limited access to coordination forums, and a lack of understanding of roles. Other barriers in PJO include a lack of administrative support and a lack of teacher involvement in planning, such as individual planning meetings . impact on quality adaptation activities and

monitoring progress participant educate (Kazanopoulos et al., 2021) Theoretically, the pattern of findings supports the idea that inclusive readiness is multidimensional: positive attitudes are an important asset, but effective implementation is determined by mastery of adaptive skills, self-efficacy, collaborative support, and school policies . practical, results This show that the improvement program competency of PJOK teachers must be emphasize (1) understanding about attributes of students with needs relevant special (MBK) for PJOK, (2) design and changes activity customized physical with objectives, (3) practice direct, study classes, and guidance, and (4) improving mechanism collaboration with GPK and parents For make adjustment learning more consistent and able measured (Zainalabidin & Ma'rof, 2021).

CONCLUSION

Study This show that the level of readiness of PJOK teachers in learning inclusive is in the category Good to very good . Training inclusive proven play a role significant in increase teacher readiness, while experience teach No show significant difference . Findings This confirm that development focused and sustainable professional required For strengthen competency of PJOK teachers in accompanying students with needs special, so that inclusive physical education learning can implemented in a way more effective and adaptive .

REFERENCE

- Afriani, G., Fransiska, F. W., & Krisnawati, N. (2025). *Strategies to Improve School Readiness to Accept Students with Special Needs through Inclusive Education*. *Global Education Journal*, 3(2), 813–820. <https://doi.org/10.59525/GEJ.V3I2.803>
- Borges, S. (2023). *Perception of Physical Education Teachers about the Inclusion of Students with Special Needs*. *Global Journal of Human-Social Science*, 23(G11), 63–67. <https://doi.org/10.34257/GJHSSGVOL23IS11PG71>
- Calvo, L. G., Gamonales, J. M., Beltran, V. H., & Jimenez, J. M. (2024). *Analisis bibliométrico de los estudios sobre actitudes hacia la discapacidad e inclusión en profesores de educación física (Bibliometric analysis of studies on attitudes towards disability and inclusion in physical education teachers)*. *Retos*, 54, 188–197. <https://doi.org/10.47197/retos.v54.102984>
- Dewi, W. P., Sudadio, S., & Fadlullah, F. (2024). *Implementation of Inclusive Education in Regular Schools*. *Global International Journal of Innovative Research*, 2(3), 624–638. <https://doi.org/10.59613/global.v2i3.117>
- Donath, J. L., Luke, T., Graf, E., Tran, U. S., & Gotz, T. (2023). *Does Professional Development Effectively Support the Implementation of Inclusive Education? A*

- Meta-Analysis. Educational Psychology Review* 2023 35:1, 35(1), 30-.
<https://doi.org/10.1007/S10648-023-09752-2>
- Erlin Mulyadi, A. W. (2017). *Policy of Inclusive Education for Education for All in Indonesia. Policy & Governance Review*, 1(3), 201.
<https://doi.org/10.30589/pgr.v1i3.57>
- Fátima Lucía, R.-S., & Christopher David, H.-N. (2024). *Inclusión Educativa: Desafíos y Oportunidades para la Educación de Estudiantes con Necesidades Especiales. Revista Científica Zambos*, 3(3), 44–63. <https://doi.org/10.69484/rcz/v3/n3/57>
- Firmansyah, D., & Dede, D. (2022). Teknik Pengambilan Sampel Umum dalam Metodologi Penelitian: Literature Review General Sampling Techniques in Research Methodology: Literature Review. 1(2), 85–114. <https://doi.org/10.55927>
- Gohar, M., Akmal, A., Javed, J., Ullah, S., Qadir, N. A., Ur, S., & Burki, R. (2024). *Embracing Inclusion: Private School Teachers' Perspective. Journal of Health and Rehabilitation Research*, 4(1), 1006–1011.
<https://doi.org/10.61919/JHRR.V4I1.494>
- Gonzalez-Alonso, M. Y., Santamaria Varquez, M., & Guijo Blanco, V. (2015). *Perfil de las personas con parálisis cerebral en servicios de vivienda. European Journal of Health Research*, 1(3), 95. <https://doi.org/10.30552/ejhr.v1i3.8>
- Gutiérrez Rodríguez, M. A., Simancas Altieri, I. M., Montoya, M. A. C. S., Montoya, M. A., Velasco Aragon, I. J., & Moreno Dominguez, R. G. (2024). *Inclusive Education a School for Diversity. Scientific Journal of Applied Social and Clinical Science*, 4(24), 1–6. <https://doi.org/10.22533/at.ed.2164242426112>
- Hermanto, H., & Pamungkas, B. (2023). *Teacher Strategies for Providing Access to Learning for Students with Special Needs in Elementary Schools*. 22(4), 345–361.
- Hristova-Pencheva, E. (2025). *Survey of the Experience, Attitudes and Readiness of Vocational Training Centers in Bulgaria to Provide Training in a Digital Environment. Pedagogical Almanac*, 33(2), 154–163.
<https://doi.org/10.54664/YFXB9680>
- Jariono, G., Nugroho, H., Amirzan, A., Lestari, I., Nurhidayat, N., & Marganingrum, T. (2022). Kemampuan guru dalam menerapkan pembelajaran penjas adaptif pada anak berkebutuhan khusus. *Medikora*, 21(1), 90–99.
<https://doi.org/10.21831/medikora.v21i1.44015>
- Jariono, G., Nugroho, H., Lestari, I., Marganingrum, T., Yani Tromol Pos, J. A., Kartasura, P., Tengah, J., Studi Pendidikan Kepelatihan Olahraga, P., Keolahragaan, F., Sebelas Maret, U., Menteri Supeno, J., Surakarta, K., Studi Pendidikan Jasmani, P., Rekreasi, dan, Keguruan dan Ilmu Pendidikan, F., Jabal Gafur Sigli, U., & Gle Gapui, J. (2022). *Teacher's Ability In Applying Adaptive Physical Education To Children With Special Needs. MEDIKORA*, 21(1), 90–99.
- Jariono, G., Nurhidayat, N., Sudarmanto, E., Nugoho, H., & Umar, F. (2025). *The Impact of Adaptive Physical Education on the Physical and Cognitive Development of Children with Special Needs: A Literature Review. Physical Education Theory and Methodology*, 25(3), 705–718. <https://doi.org/10.17309/tmfv.2025.3.28>
- Kazanopoulos, S., Mouchritsa, M., Garitano, E. T., & Olabe, X. B. (2021). *Collaboration*

between In-Service School Teachers and Families in the Context of Inclusive Education: A Review of the Recent Literature. Journal of Education and Practice, 12(6), 47–53. <https://doi.org/10.7176/JEP/12-6-05>

Laily, N., Arsyadhi, A., Dewi, L., Hernawan, A. H., & Kunci, K. (2024). *Evaluation of teacher readiness in implementing Kurikulum Merdeka in elementary schools. Inovasi Kurikulum, 21(2), 1149–1160. <https://doi.org/10.17509/JIK.V21I2.64113>*

Marchisio, C., Graziano, F., Monchietto, A., & Calandri, E. (2024). *Insegnanti di sostegno e educazione inclusiva: una ricerca su atteggiamenti, autoefficacia, autovalutazione di conoscenze e competenze, e comportamenti in classe. Journal of Educational, Cultural and Psychological Studies (ECPS Journal), 0(29), 85–105. <https://doi.org/10.7358/ECPS-2024-029-MARC>*

Marlina, Dr. (2017). *Teacher's Attitude and Peer Acceptance to Children with Special Needs in Inclusive Primary Schools. 245–252. <https://doi.org/10.2991/ICSET-17.2017.41>*

Mulyana, A., An-Nazwa, F., Amanatin, I., Dwi, L., Afifah, A., Handayani, S. R., Zikri, S. A., & Wati, T. A. (2024). *Mengapa Olahraga Penting? Peran Pendidikan Jasmani, Olahraga, dan Kesehatan (PJOK) di Sekolah Dasar. Indo-MathEdu Intellectuals Journal, 5(3), 2763–2770. <https://doi.org/10.54373/IMEIJ.V5I3.1158>*

Nurul Arifin, A., Nurhidayah, H., Septi Mutmainah, F., Nuruliva, A., Maulida Iskandar, S., Novia Islami, S., Rahmawati, A., & Permana, R. (2025). *Persepsi Guru PJOK dan Guru Kelas terhadap Implementasi Pembelajaran Inklusif di Sekolah Dasar Negeri 2 Gobras. Jurnal Pendidikan Dirgantara, 2(3), 280–290. <https://doi.org/10.61132/jupendir.v2i3.601>*

Palei, P. (2024). *Inclusive Teaching Competency for Successful Implementation of Inclusive Education. IJFMR - International Journal For Multidisciplinary Research, 6(2). <https://doi.org/10.36948/IJFMR.2024.V06I02.18455>*

Palmerola, E. D., Karlo, K., Amorado, T., Ann, K., & Arabilla, T. (2024). *A Comparative Study of Learning Modalities and Academic Performance in a Private Senior High School in Southern Philippines. American Journal of Multidisciplinary Research and Innovation, 3(6), 42–48. <https://doi.org/10.54536/AJMRI.V3I6.3653>*

Permendikbud. (2011). *Peraturan Nasional, Menteri Pendidikan Indonesia, Republik. 2013(021), 1–266.*

Qian, W., & Rong, Y. (2023). *A Review Study of Inclusive Education. Lecture Notes in Education Psychology and Public Media, 16(1), 188–193. <https://doi.org/10.54254/2753-7048/16/20231143>*

Reina, R., Santana, A., Montesdeoca, R., & Roldan, A. (2019). *Improving Self-Efficacy Towards Inclusion in In-Service Physical Education Teachers: A Comparison between Insular and Peninsular Regions in Spain. Sustainability 2019, Vol. 11, Page 5824, 11(20), 5824. <https://doi.org/10.3390/SU11205824>*

Sasikala, C. (2023). *Attitudes towards Inclusive Education among Prospective Teachers. Shanlax International Journal of Arts, Science and Humanities, 11(S1-Nov), 42–46. <https://doi.org/10.34293/SIJASH.V11IIS1-NOV.6861>*

Sriwahyuni, E., & Khermarinah, K. (2024). *A Program for Inclusive Education Towards*

Equitable and Non-Discriminatory Education. Journal of Social Work and Science Education, 5(1), 307–318. <https://doi.org/10.52690/JSWSE.V5I1.736>

Sumane, I. (2020). *Students' Readiness to Implement*. 122–129. <https://doi.org/https://doi.org/10.22364/htqe.2020.10>

Suryobroto, A. S. (2021). Kesiapan guru PJOK SD dalam implementasi kurikulum 2013. *Jurnal Pendidikan Jasmani Indonesia*, 17(2), 122–129. <https://doi.org/10.21831/JPJI.V17I2.53075>

Tapales, C. C. (2025). *Readiness of Teachers in the Face-To-Face Learning Modality. GEO Academic Journal*, 6(1). <https://doi.org/10.56738/ISSN29603986.GEO2025.6.117>

Zainalabidin, N., & Ma'rof, A. M. (2021). *Predicting the Roles of Attitudes and Self-Efficacy in Readiness Towards Implementation of Inclusive Education Among Primary School Teachers. Asian Social Science*, 17(11), p91. <https://doi.org/10.5539/ASS.V17N11P91>