

Transforming Vocational Education through Local Wisdom: Institutionalization of *Pendidikan Khas Kejogjaan* in School Organizational Culture

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DOI: 10.23917/ijolae.v8i3.19384

Received: July 15th, 2026. Revised: September 14th, 2026. Accepted: September 22th, 2026

Available Online: September 25th, 2026. Published Regularly: September, 2026

Abstract

The current study analyzes the institutionalization of the *Pendidikan Khas Kejogjaan* (PKJ) program in vocational high schools (SMKs) in the Special Region of Yogyakarta, with particular emphasis on organizational culture, multicultural education, student character, progressive learning, and context-sensitive learning innovation. A mixed methods research was carried out in 18 SMKs with the use of interview, focus group discussion, observation, documentary analysis, and a PKJ-based survey involving 720 students. The findings of this study indicate that 8 schools (44.4%) have completely adopted PKJ, 7 (38.9%) have partially adopted PKJ, and 3 (16.7%) are still in the awareness stage of adopting PKJ. SMKs which have completely adopted PKJ scored better in terms of organizational culture (83.1) compared to non-PKJ schools (71.0) and also in terms of student character scores (82.3 vs 71.6; $p = .001$). The PKJ adoption process was achieved through curriculum integration, learning-environment design, exemplary leadership, cultural extracurricular activities, and school-community partnerships, creating a context-sensitive and progressive framework for vocational learning. Despite these achievements, teacher competencies, learning resources, leadership continuity, and partnership sustainability remain major challenges for advancing innovative, context-sensitive, and sustainable vocational learning.

Keywords: *pendidikan khas kejogjaan*, progressive learning, learning innovation, learning design, learning innovation, meaningful learning, innovative learning, multicultural education, sustainable vocational learning



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1. Introduction

Education is not just a tool for knowledge transmission and competence development but also a means of strategic cultural change, character formation and maintenance of social identity of learners. In the era of rapid globalization and increasing social and technological interconnection, educational institutions

face complex challenges in maintaining cultural identity while preparing learners for social, technological, and economic change (Hidayati et al., 2020). These challenges require educational approaches that are adaptive, progressive, and responsive to changing learning contexts. In the Indonesian context, culture-based education can serve not only to

maintain social identity and strengthen character development but also to support advanced and context-sensitive learning by connecting local cultural knowledge with contemporary educational practices (Arjaya et al., 2024). Culture in this case is not just an additional part of curricula but a part of educational process, organization and disposition formation of learners.

The Special Region of Yogyakarta (Daerah Istimewa Yogyakarta/DIY) as a unique region with special autonomy in the field of culture and education with specific cultural and educational tradition is an important context for the study of the relation between culture and education. Being a region with special autonomy, Yogyakarta Region developed its own culture-based educational orientation called PKJ. PKJ is an educational orientation aimed to internalize the philosophical values and cultural traditions of Yogyakarta in educational institutions. The main goal of PKJ is to raise *Jalma kang Utama* or persons demonstrating noble character, ethical behavior and social responsibility (Fadli, 2021; Ruswinarsih et al., 2025). The main goals are achieved with the help of the following five values: (1) *hamangku, hamengku, hamengkoni*; (2) *mangasah mingising budi, memasuh malaning bumi*; (3) *pamenthanging gandhewa, pamanthenging cipta*; (4) *sawiji, greget, sengguh, ora mingkuh*; and (5) *golong-gilig*. The values are grounded in three basic philosophical principles of Yogyakarta society including *hamemayu hayuning bawana, sangkan paraning dumadi, and manunggaling kawula-gusti* that traditionally shape the philosophical and cultural basis of Ngayogyakarta Hadiningrat civilization for more than two and a half centuries (Cahyaningsih et al., 2025).

Implementation of PKJ in vocational education is especially important because

vocational high schools (Sekolah Menengah Kejuruan/SMK) are not only oriented towards competence development but also character development, ethical orientation, flexibility and social responsibility needed in professional and communal life. Vocational education is therefore an important space for integrating local philosophical values into professional learning, collaborative practice, problem solving, and innovative learning design, while preparing students to respond to changing workplace and societal demands (Ramadhan et al., 2025). At the same time, research investigating the issue of implementation of PKJ in vocational education is rather scarce. The existing research tends to investigate the culture-based education or multicultural education in general secondary education without taking into account peculiarities of vocational schools such as competency-based curriculum, workplace preparation, and industry-oriented learning environment. For instance, Jati (2014) investigated multiculturalism in SMA Sang Timur Yogyakarta and made some important insights on culture-based tolerance but the researcher did not pay attention to the relation between cultural values and vocational competencies. Similar results were obtained in the study by Widyastuti & Hartanto (2023). They investigated Yogyakarta educational model but did not put their analysis in the frame of vocational high schools. Thus, further empirical research is necessary to understand how PKJ values are transformed into organizational culture, learning processes, learning design, character development, and innovative practices within vocational institutions.

The issue is especially urgent in connection with the strategic importance of vocational education in Yogyakarta. Data for 2023 presented by the Yogyakarta Provincial

Office of Education, Youth and Sports (Dikpora DIY) show that the province has 207 vocational high schools that include 56 public and 151 private institutions with the total number of learners equal to 106,847. Thus, the strategic number of institutions and learners makes the SMK institutions strategically important in human resources development of the region. Apart from providing learners with technical and occupational competencies, vocational schools are expected to prepare responsible professionals and members of society who contribute to sustainable social, cultural, and educational development through context-sensitive and value-based learning (Mursidah Waty et al., 2025). In this sense, the introduction of local philosophical values in school organizational processes can be a powerful ground for linking vocational competencies with character and cultural identity.

The implementation of PKJ values in vocational schools remains a challenging educational issue because the existence of formal policies does not necessarily guarantee their meaningful integration into organizational routines, curriculum, learning design, and classroom practices. Preliminary survey made in September 2023 with the participation of 54 heads of Yogyakarta SMK schools showed that 71.3% of the schools know about PKJ and only 38.9% systematically introduce PKJ in school programs. The inconsistency between awareness of the policy and implementation shows that the institutionalization of PKJ values remains uneven. At the same time, important issues arise on how cultural values are interpreted, internalized and transformed into organizational routine, instruction, student character assessment and innovations (Sugiyarti et al., 2025). Thus, examination of implementation at the school level is crucial for understanding whether PKJ remains just

policy discourse or has become a component of educational practice.

School organizational culture is an important theoretical perspective for understanding the issue. Organizational culture of school includes shared values, beliefs, norms, practices and interaction patterns shaping the way members of the educational organization see organizational goals (Schein, 2010; Deal & Peterson, 2016). From this perspective, the internalization of PKJ values presupposes not just the inclusion of these values into official documents or school program but embedding of these values into leadership practices, teachers-students relationships, organizational routine, learning activities and mechanisms of character development. At the same time, multicultural education focuses on the necessity for educational institutions not just to recognize the cultural diversity but transform the organizational practices in terms of equity, inclusion and meaningful participation (Nurrahman & Muhson, 2025). In Yogyakarta, the multiculturalism concept has a specific cultural aspect because multiculturalism meets the preservation and revitalization of Javanese-Yogyakarta cultural identity as a cultural system (Wahyono et al., 2022). In particular, the value of *golong-gilig* expresses the idea of unity and cohesion of society that can be considered as an indigenous manifestation of multiculturalism based on local wisdom (Ma'ruf et al., 2026).

Thus, despite conceptual connection between PKJ, organizational culture, multiculturalism, student character and vocational learning innovation, the issue of their relationship as a whole phenomenon is poorly examined in the literature. The literature provides useful discussion of culture-based education, multiculturalism, organizational culture and Yogyakarta

educational philosophy but the issues are examined separately. The fragmented view on the issue creates the possibility to investigate how local cultural values work simultaneously at the institutional, pedagogical and student level in vocational education. Such a comprehensive investigation is necessary because the effectiveness of the culture-based education depends not only on presence of cultural content but also on capacity of schools to institutionalize the values through organizational and instructional processes.

Thus, this study explores the implementation of PKJ values in vocational high schools of the Special Region of Yogyakarta based on the following four research questions: (1) how are the values of PKJ internalized within the organizational culture of vocational high schools (SMK) in the Special Region of Yogyakarta; (2) how is multiculturalism implemented within the PKJ-based vocational education environment in SMK across the Special Region of Yogyakarta; (3) how does the implementation of PKJ values contribute to the assessment and development of student character in SMK in the Special Region of Yogyakarta; and (4) how are PKJ values integrated into vocational learning innovation, and what factors support and hinder their implementation in SMK across the Special Region of Yogyakarta.

With the help of mixed-methods approach involving 18 vocational high schools in the Special Region of Yogyakarta, this study tries to give an empirical account on how local philosophical values are institutionalized within vocational education. The study makes an important contribution to the literature by combining four perspectives that are usually discussed separately: local cultural wisdom, school organizational culture, multicultural education and vocational learning innovation. Instead of

seeing PKJ just as a cultural preservation policy, this study views PKJ implementation as an institutional process through which cultural values can transform organizational processes, multicultural relations, student character development and pedagogical innovations. The resulting model is expected to become a conceptual and empirical reference point for strengthening culturally-responsive vocational education in Yogyakarta and informing the development of context-sensitive vocational education policies in other regions of Indonesia.

2. Method

This study applied the research methodology of mixed methods in which qualitative case studies and document analysis along with quantitative surveys were combined to gain a holistic insight into the implementation of PKJ in SMK schools in the Special Region of Yogyakarta. The mixed method approach seemed relevant to the research on account of the complexity of PKJ as a phenomenon. PKJ implementation involves institutional procedures, organizational culture, perceptions of teachers and school leaders, students' character building, and new ways of learning. Qualitative research allowed obtaining a deeper insight (*verstehen*) into the interpretation and implementation of PKJ values, while quantitative data helped detect specific trends and differences in the PKJ implementation and in the development of students' character. The combination of qualitative and quantitative approaches enabled providing the research with contextual depth and empirical measurement (Budianto et al., 2026).

The research process included five interrelated stages: (1) definition of the research setting and the selection of relevant schools; (2) identification of participants; (3)

collection of qualitative and quantitative data; findings. The research procedure is illustrated by Figure 1 below.

(4) analysis of qualitative and quantitative data; (5) integration and interpretation of

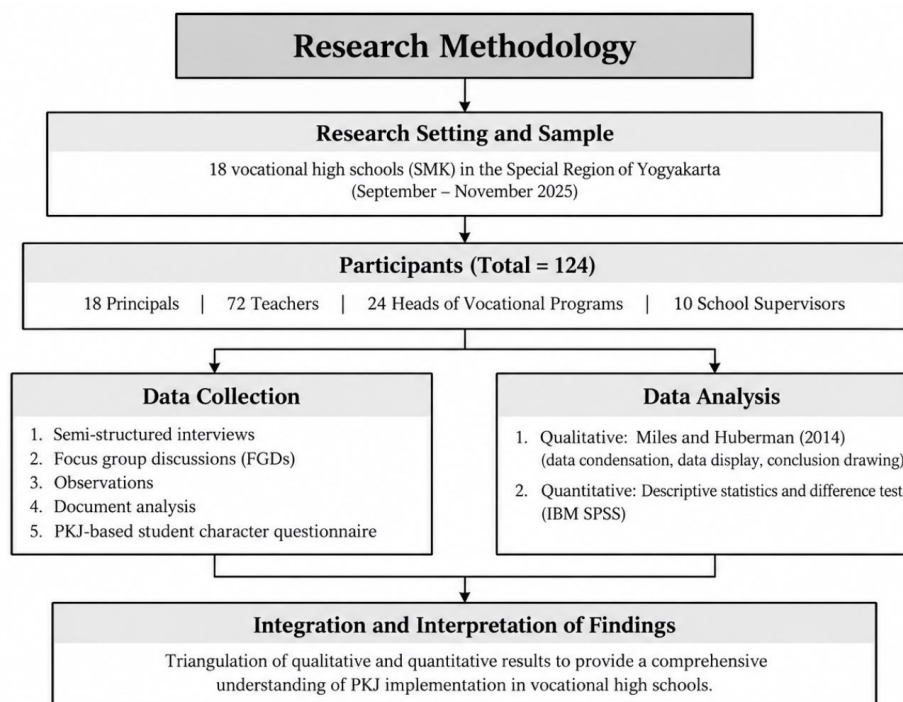


Figure 1. Research Methodology Design

a. Research Setting and Sampling

The research was conducted in September to November 2025 in 18 vocational high schools located in the five regencies/municipality of the Special Region of Yogyakarta. In particular, the selected schools included four schools in Yogyakarta Municipality, four in Bantul Regency, four in Sleman Regency, three in Kulon Progo Regency, and three in Gunungkidul Regency. The geographical distribution was chosen in order to achieve representation of different settings of vocational schools in the region.

Purposive sampling was used for the selection of the participating schools. There were three main criteria for selection of the schools. Firstly, the sample represented various forms of school ownership and status of institutions, including public and private vocational schools. Secondly, the sample represented variation in vocational

specialization, namely technology, business, tourism, and arts and crafts. Thirdly, the sample represented various stages of PKJ implementation, including those that had implemented PKJ completely, those that were in the process of its implementation, and those that recently introduced PKJ. Thus, the criteria were set not in order to get statistically representative sample but to ensure representation of variation in institutional context and conditions of PKJ implementation.

b. Participants

In total, 124 participants participated in the study. They included 18 school principals, 72 teachers, 24 heads of vocational competency programs, and 10 school supervisors. It is worth noting that the distribution of participants allowed getting a range of perspectives related to PKJ

implementation, starting from school leadership and instructional processes to vocational program management and external supervision.

Principals and heads of vocational competency programs provided information about school-level policies, practices, implementation, and strategies related to PKJ. Information about the inclusion of PKJ values in instruction and learning processes, students' development, and school culture were provided by teachers. On the other hand, the information about PKJ implementation, monitoring, and institutionalization was provided by school supervisors. Therefore, a range of perspectives on PKJ implementation in the vocational schools was covered in the course of the study.

c. Data Collection Techniques

Data collection took place using various qualitative and quantitative techniques. In the first case, these techniques include semi-structured in-depth interviews, FGDs, observations, and document analysis, while in the latter case PKJ-based student character assessment questionnaire was used.

Firstly, semi-structured in-depth interviews were conducted with school principals and heads of vocational competency programs. The interviews focused on the following issues: understanding of PKJ, strategies of institutionalization of PKJ values, organizational culture, leadership practices, implementation challenges, and integration of PKJ into vocational education programs.

Secondly, FGDs with teachers were conducted in order to get their collective perspective on practical implementation of PKJ in teaching and learning. The issues of local cultural values incorporation in instruction, character development of students, multicultural interaction, learning

innovation, and factors supporting or restraining PKJ implementation were discussed during the discussion.

Thirdly, classroom and school environment observations were conducted in order to analyze actual educational practices in terms of manifestation of PKJ values. The issues of interactions in schools, classroom activities, institutional routines, learning environment, and other practices related to PKJ values internalization were examined.

Fourthly, the analysis of relevant school-level documents (Kurikulum Tingkat Satuan Pendidikan (KTSP), school work programs, PKJ-related implementation documents, monitoring reports) was conducted. The aim of documentation analysis was to supplement the results of interviews, FGDs, and observations and to examine the extent to which PKJ values were formally included in school policies and programs.

Finally, quantitative data were obtained through the application of PKJ-based student character assessment questionnaire. The instrument was previously validated by the Yogyakarta Regional Office of Education, Youth, and Sports (Dikpora DIY). The questionnaire was used to obtain quantitative data related to character-related dimension of PKJ implementation and to allow comparison of implementation patterns across the participating schools.

d. Qualitative Data Analysis

The qualitative data collected through interviews, FGDs, observations, and document analysis were analyzed using the interactive qualitative data analysis model developed by Sumartias et al (2020). The analysis included three interrelated steps data condensation, data display, and conclusion drawing/verification.

The step of data condensation included the selection, coding, categorizing, and

synthesis of interview transcripts, FGDs, observation notes, and documents in accordance with the research questions (Afandi et al., 2026). The coding process focused on the themes of PKJ value internalization, organizational culture, multiculturalism, student character development, learning innovation, and supporting and inhibiting factors.

Afterwards, the condensed data were organized using data display in the form of thematic matrices, categorical summaries, and cross-case comparisons. This allowed identifying the patterns across 18 participating schools. Finally, conclusion drawing and verification was conducted through analysis of the emerged patterns across different sources and participants. The conclusions were constantly compared with the empirical evidence in order to ensure consistency between the interpretations and collected data (Subekti, 2024).

e. Quantitative Data Analysis

The quantitative data were analyzed using descriptive and inferential statistical procedures with IBM SPSS. Firstly, the descriptive statistics were used to summarize the distribution of responses and to characterize the patterns of PKJ-related character implementation. The analysis included the calculation of frequencies, percentages, means, and other descriptive indicators.

In order to examine differences across groups or conditions of implementation, difference tests, including independent-samples t-test and ANOVA were applied. Statistical analysis was aimed at the identification of differences in PKJ-related character assessment in accordance with relevant school or implementation characteristic. Further analysis of the quantitative findings together with the

qualitative evidence was conducted in order to provide comprehensive interpretation of PKJ implementation (Ratana-Ubol & Henschke, 2015).

f. Integration of Qualitative and Quantitative Findings

At the last stage of the study the integration of qualitative and quantitative findings took place. The qualitative evidence provided the contextual explanation of the processes and reasons of PKJ value implementation in the organizational and instructional practices of schools, while quantitative evidence provided the measurable patterns related to implementation and character-related outcomes. The two strands of evidence were compared and interpreted in order to identify convergent, complementary, and contextual differences.

As a result of this integration, the study moved beyond the description of PKJ implementation towards the empirical understanding of the relationships between local cultural values, school organizational culture, multiculturalism, student character development, and vocational learning innovation (Darna et al., 2026). In addition, the integration of analytical strategy allowed identifying institutional factors that supported or restrained PKJ implementation in different vocational education contexts in the Special Region of Yogyakarta.

3. Result and Discussion

The findings of this study give an integrated explanation about the implementation of PKJ in SMK in the Special Region of Yogyakarta. With the use of both qualitative and quantitative evidence from interviews, focus group discussions, observations, and document analyses and organization cultural and student character assessments, it is found that

PKJ implementation not only depends on the incorporation of local cultural values into the education process but also in terms of school organizational culture transformation, the emergence of multicultural educational practices, the strengthening of student character, and culturally based vocational learning process (Prasadityo et al., 2024). Furthermore, significant differences in PKJ institutionalization at the different schools are revealed as well as factors that affect the sustainable PKJ implementation either positively or negatively.

In order to give a coherent interpretation of the findings, the results and discussion of this research are presented in three interconnected thematic sections: (1) PKJ implementation and vocational school organizational culture transformation; (2) PKJ-based multiculturalism and student character development; and (3) institutional mechanisms, learning innovation, and PKJ implementation difficulties. Three aforementioned

dimensions show how local cultural values can be institutionalized in vocational education.

a. PKJ Implementation and the Transformation of Vocational School Organizational Culture

Implementation of PKJ among vocational high schools (SMK) in the Special Region of Yogyakarta shows significant differences in the degree of institutionalization of local cultural values in school practices. Using document analysis, interviews, observations, and implementation records at the school level, the participating schools can be categorized into three groups: full implementation, partial implementation, and newly aware schools. This categorization suggests that PKJ implementation varies greatly among schools in the region and new awareness of PKJ does not mean the systemic implementation of this approach in school life (Kusumardi et al., 2026).

Table 1. Distribution of PKJ Implementation Levels in Vocational High Schools (SMK) in the Special Region of Yogyakarta by Region (N = 18)

Regency/City	Sample Schools	Full Implementation	Partial Implementation	Newly Aware
Yogyakarta City	4	3 (75.0%)	1 (25.0%)	0 (0.0%)
Bantul	4	2 (50.0%)	2 (50.0%)	0 (0.0%)
Sleman	4	2 (50.0%)	1 (25.0%)	1 (25.0%)
Kulon Progo	3	1 (33.3%)	1 (33.3%)	1 (33.3%)
Gunungkidul	3	0 (0.0%)	2 (66.7%)	1 (33.3%)
Total	18	8 (44.4%)	7 (38.9%)	3 (16.7%)

Note: Full implementation refers to systematic integration of PKJ into the curriculum, school programs, and school climate; partial implementation refers to implementation in selected programs; newly aware refers to the socialization or initial-awareness stage.

Table 1 shows geographical variance with regard to PKJ institutionalization. Yogyakarta City emerges as the region where the largest proportion of schools have been classified under full implementation PKJ, given that 75% of the sampled schools have attained this status. Each of Bantul and Sleman regions attains a full implementation of PKJ at 50%, whereas Kulon Progo Region

registers 33.3%. There is no school in Gunungkidul region that has been found as full implementers of PKJ, with 66.7% being partial implementers and 33.3% having just realized about PKJ. Aggregately, it appears that only 44.4% of the sampled schools have fully institutionalized PKJ, 38.9% have selectively implemented it, and 16.7% are at the awareness level. These results show that

PKJ has become institutionalized to a large extent but yet to be implemented systematically (Kusumardi et al., 2026).

These results are important especially given that the policy realization alone does not ensure PKJ institutionalization.

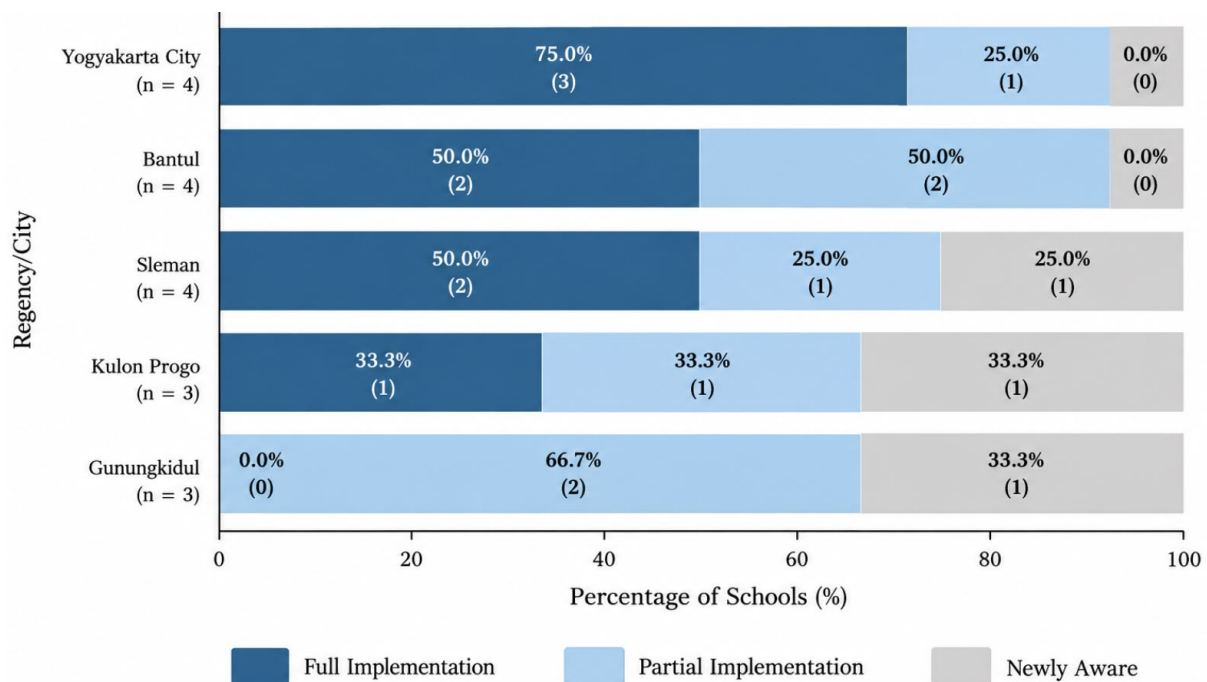


Figure 2. Distribution of PKJ Implementation Levels Across Vocational High Schools in the Special Region of Yogyakarta

Figure 2 shows the distribution of full, partial, and new PKJ implementation among the five regencies/municipality. The figure uses 100% stacked bar graph to show the differences of PKJ institutionalization at the regional level.

First, the regional distribution shown in Figure 2 again supports the findings that PKJ implementation undergoes different institutionalization processes at the school level. The contrast between Yogyakarta City, in which three out of four sampled schools implement PKJ fully, and Gunungkidul, in which none of the three sampled schools implements PKJ fully, implies the possibility that the process of PKJ institutionalization depends on the organization's readiness, leadership commitment, availability of cultural resources, and prior exposure to PKJ-based program (Ranu et al., 2025). However, the differences do not mean that the

geographical location determines PKJ institutionalization. Instead, the differences are the empirical data for understanding the organizational factors that institutionalize PKJ.

The differences in PKJ implementation are clarified further through the analysis of organizational culture. As mentioned above, the analysis found five dimensions that are related to PKJ-based organizational culture: leadership through role modeling, togetherness/teamwork, work ethic/discipline, innovation/critical thinking, and goal-orientation. These dimensions match closely with the philosophical meaning of PKJ values (Fauzi et al., 2023). For instance, hamangku, hamengku, hamengkoni means leadership and responsibility, golang-gilig means teamwork, while sawiji, greget, sungguh, ora mingkuh means focus, enthusiasm, confidence, and perseverance.

Thus, PKJ values could function not only as symbols but also as norms.

Table 2. Mean Score of Organizational Culture in SMK Based on PKJ Values (Scale 1–100)

Organizational Culture Dimension	Related PKJ Values	PKJ-Implemented SMK	Non-PKJ SMK
Leadership based on role modeling	Hamangku-hamengku-hamengkoni	87.4	72.1
Togetherness and team collaboration	Golong-gilig	84.6	70.3
Work ethic and discipline	Sawiji, greget, sungguh, ora mingkuh	82.9	74.5
Innovation and critical thinking	Mangasah mingising budi	79.3	68.8
Long-term goal orientation	Pamenthanging gandhewa	81.1	69.2
Overall Average	—	83.1	71.0

The findings from Table 2 demonstrate that schools implementing PKJ systematically show higher scores for organizational culture in all five dimensions when compared to schools which do not implement PKJ systematically. On average, the total score is 83.1 for schools implementing PKJ and 71.0 for non-PKJ schools. The greatest difference

can be observed in leadership through role modeling (87.4 compared to 72.1) and in togetherness and teamwork (84.6 compared to 70.3). Despite the relatively smaller difference between work ethic and discipline (82.9 compared to 74.5), the latter is still considerable.

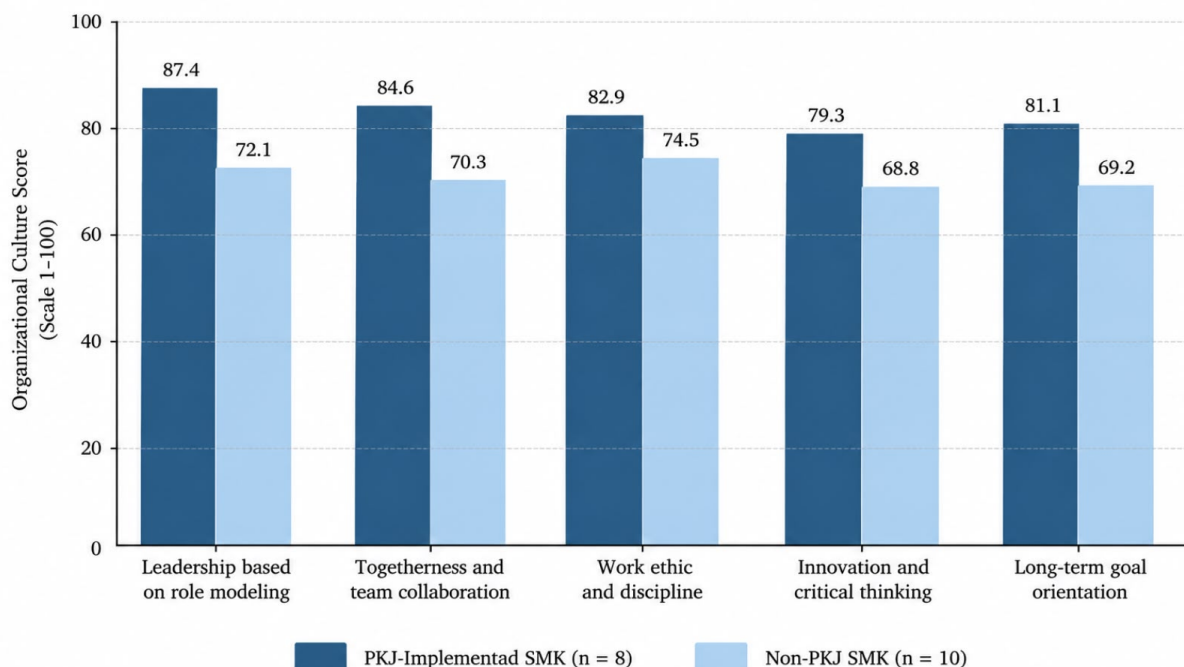


Figure 3. Organizational Culture Scores by PKJ Implementation Status

Figure 3 represents PKJ implemented versus non-PKJ vocational high schools in terms of organizational culture scores across

five dimensions: leadership based on role modeling, togetherness and collaboration, work ethic and discipline, innovation and

critical thinking, and long-term goal orientation.

Figure 3 highlights the difference between PKJ implemented and non-PKJ vocational schools in terms of organizational culture. It appears that the difference is more obvious for leadership and collaboration dimensions. The average differences in organizational culture between PKJ implemented and non-PKJ vocational schools are 15.3 (for leadership), 14.3 (for collaboration), 8.4 (for work ethic), 10.5 (for innovation), and 11.9 (for long-term goal orientation). It suggests that there is a certain association between PKJ institutionalization and organizational culture, but it does not mean a causal relationship (Wahidin & Sumantri, 2023).

These findings contribute to the discussion of the school organizational culture concept introduced by Schein (2010). According to Schein (2010), organizational culture is defined by its artifacts, espoused values, and underlying assumptions. In the current study, it is possible to see PKJ in all three dimensions. As for the level of artifacts, cultural expressions manifest themselves through the physical and social environment of the schools, including the usage of Javanese language and script, cultural symbols, ceremonies, and culturally oriented activities (Nurhalia et al., 2026). The level of espoused values is manifested by the incorporation of PKJ principles into vision, mission, programs, and expected behavior of the students. Finally, the underlying assumptions can be represented by the philosophical principles, like hamemayu hayuning bawana and golong-gilig. They shape the views of the community members about leadership, collaboration, responsibility, and relationships (Singh, 2019).

This interpretation is consistent with the assumption that school organizational culture is formed through shared meanings, institutional routines, leadership practices, and expectations of the members of the community (Deal & Peterson, 2016). The current findings also indicate that local cultural values can be used as organizational resources when translated into institutional routines rather than treated as mere symbols of the identity of the school. This kind of relationship between cultural values, organizational practices, and educational development has been found in previous studies (Diwanti & Perdana, 2025). Recent research has emphasized the importance of embedding cultural values into institutional routines rather than implementing isolated activities in order to achieve the desired effect (Junarso, 2026).

The particular high score for the leadership dimension is also consistent with the PKJ principle of hamangku, hamengku, hamengkoni and is manifested by the behavior of school principals who are characterized by their punctuality, active participation, cultural involvement, and consistency in institutional programs (Hafizin et al., 2026). This finding supports the argument that organizational values become more sustainable when they are manifested by the leadership practices rather than just communicated through the policies. The research on leadership in educational organizations shows the positive effect of value-based and exemplary leadership on the alignment of institutional goals, organizational norms, and everyday professional practices (Rahman & Hakim, 2024).

The second highest score for the dimension of togetherness and team collaboration is directly associated with the principle of golong-gilig. The finding is

especially relevant to the vocational education, since SMK needs cooperation between teachers, heads of vocational competency programs, school leaders, industrial partners, and other stakeholders. Thus, culture of collective responsibility will provide the organizational foundation for interdisciplinary collaboration and integration of cultural values into vocational learning (Bound, 2011). This interpretation is consistent with the idea that school culture impacts the cooperation patterns, professional interaction, and the capacity for educational improvement (Yani et al., 2025).

It is also worth paying attention to the findings related to the innovation and critical thinking dimension. Though this dimension demonstrates the lowest score among the five dimensions in PKJ implemented schools (79.3), it still is higher than in non-PKJ schools (68.8). This association can be explained by the principle of *mangasah mingising budi*, which involves the refinement of intellect and moral reasoning (Sugiharti et al., 2026). In vocational education, it provides the rationale for the development of the ability to analyze problems, find solutions, and adjust knowledge to the practical context. Therefore, PKJ implementation should not be perceived as an alternative to technological and pedagogical innovation; rather, local philosophical values can provide an ethical and cultural foundation for advanced, context-sensitive, and progressive learning innovation (Nurbayani et al., 2025). Instead, the local philosophical values can provide the ethical and cultural basis for innovation.

Thus, the findings show that the PKJ implementation goes beyond the level of curriculum content. The stronger PKJ manifestation in vocational schools occurs when cultural values are translated into leadership practices, cooperative

relationships, professional norms, school routines, and orientations towards innovation and future development (Enas & Bahtiar, 2025). These findings support the previous research that positioned culture-based education as the institutional process rather than additional curricular element (Layli et al., 2023). This study thus contributes to the understanding of vocational education by demonstrating that local cultural philosophy can be the framework for the organizational development of the vocational schools while being compatible with the objectives of SMK education.

On the other hand, the differences between PKJ implemented and non-PKJ schools should be considered carefully. The design of the study does not allow reaching the definitive conclusion about the causality between PKJ implementation and higher organizational culture scores. These differences also may be associated with the leadership of the school, the history of the institution, available resources, teachers' competencies, or other contextual factors (Laili & Aziz, 2026). Nonetheless, the convergence of documentary analysis, qualitative findings, and quantitative assessment of organizational culture is enough to conclude that the systematic PKJ institutionalization is highly associated with the value-oriented organizational culture. This finding serves as the base for the subsequent discussion of multicultural practices and character development.

b. PKJ-Based Multiculturalism and Student Character Development

The implementation of PKJ in SMK provides evidence that local cultural values can be utilized as a basis for multicultural education as well as character building of the students. In the case of Yogyakarta, multiculturalism involves not only

acknowledgment of diversity in terms of ethnicity, religion, and regions but also local culture maintenance, respect and contextualization (Rifqiansyah, 2025). The results suggest that multiculturalism based on PKJ values is shown by such aspects as daily school practices, cultural events, process of learning and programs intended to enhance tolerance and interaction among diverse students. This result is especially valuable because of the fact that students in vocational schools come from various social, geographical, cultural and educational background and the school serves as a platform for building cultural and social identity of the students.

The analysis of observational data collected in 18 SMKs found out six types of

multicultural implementation related to PKJ values: the utilization of Javanese script and language, cultural arts activities outside the curriculum, cultural ceremonies and traditions, visits to cultural heritage places, tolerance programs in interfaith and interregional context and inclusion of local wisdom in vocational subjects (Sadri & Temaja, 2025). These examples show that multiculturalism within the PKJ context takes place both at a symbolic and practical levels. Cultural identity is presented by such elements as language, script, tradition and art, and multicultural interaction is developed through tolerance programs and joint educational experience.

Table 3. Forms of PKJ-Based Multiculturalism Implementation in Vocational High Schools in the Special Region of Yogyakarta

PKJ-Based Multicultural Practice	Schools Implementing (%)	Intensity Score (1–5)	Educational Orientation
Integration of Javanese script and language	94.4	4.2	Cultural identity and communication
Cultural arts extracurricular activities	88.9	4.0	Cultural participation and creativity
Cultural ceremonies and traditions	83.3	3.8	Cultural preservation and belonging
Educational visits to cultural heritage sites	77.8	3.5	Experiential cultural learning
Interfaith and interregional tolerance programs	72.2	3.6	Social inclusion and tolerance
Integration of local wisdom into vocational subjects	66.7	3.2	Contextualized vocational learning

The use of PKJ-based multiculturalism is most frequently found through the incorporation of Javanese script and language, which is noted by 94.4% of the sampled schools with intensity 4.2. Cultural arts extracurricular activities (88.9%; intensity = 4.0) and cultural ceremonies and traditions (83.3%; intensity = 3.8) follow the above point. Thus, it can be said that cultural identity is well-represented within the visible and experienced dimension of school. Nevertheless, the relatively lower proportion of

schools integrating local wisdom into vocational subjects (66.7%; intensity = 3.2) indicates that the transition from cultural preservation toward pedagogical integration and context-sensitive learning design requires further institutional development.

Furthermore, the results demonstrate that the idea of multiculturalism in the PKJ model should not be considered as mere cultural preservation, since interfaith and interregional tolerance programs are found in 72.2% of the surveyed schools. Thus, local cultural identity

can be regarded as being placed alongside broader ideas of social inclusion. This can be seen in light of the definition of multicultural education provided by [Nurhamid et al. \(2026\)](#) as institutional transformation towards

equality rather than simply adding cultural elements to the curriculum. Within the latter context, *golong-gilig* can be viewed as an indigenous philosophical basis for social unity despite cultural diversity.

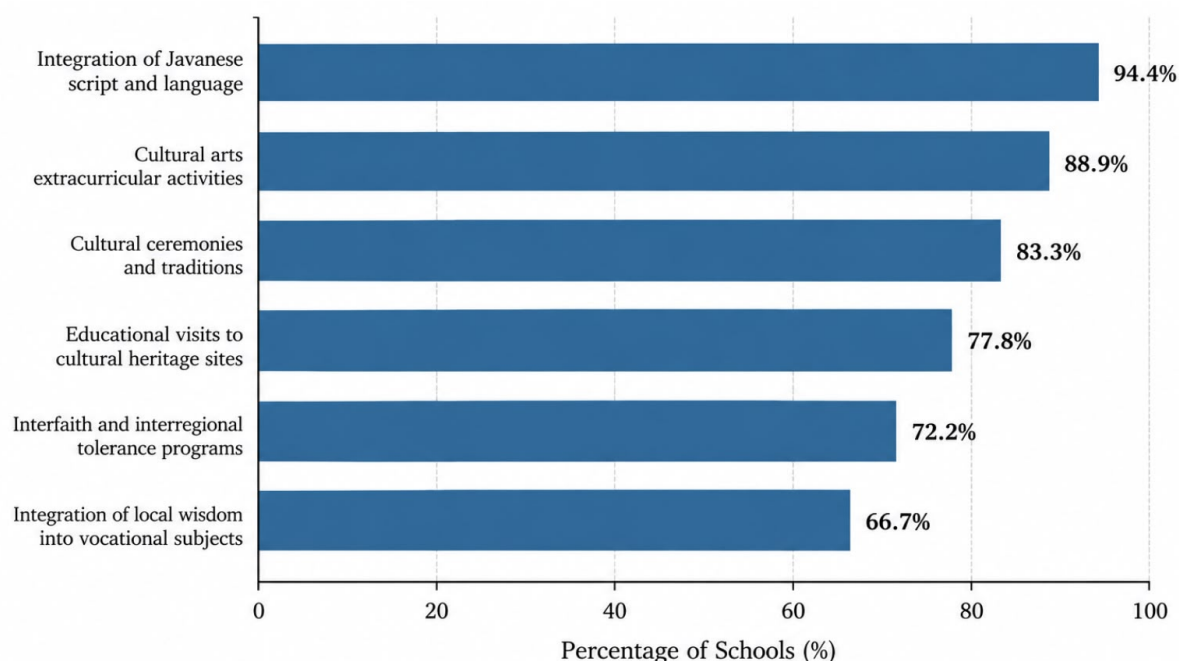


Figure 4. Prevalence of PKJ-Based Multicultural Practices in Vocational High Schools

As can be seen from Figure 4, there is a definite trend showing that the more culturally visible practice has higher prevalence compared to those which require pedagogical and institutional integration. In this case, Javanese language and writing prevail by 94.4%, and the prevalence of local wisdom into vocational studies – by 66.7%. It is especially relevant because it shows the difficulty of incorporating PKJ in terms of the core instructional process; in other words, the more difficult task schools face is the incorporation of PKJ through the core instructional process ([Hariyanti, 2025](#)).

It corresponds with Widyastuti et al. (2018) differentiation between approaches which only add cultural content and those which aim at transforming the entire educational institution. In the current study,

cultural ceremonies and Javanese language are examples of adding cultural content and identity, and local wisdom into vocational subjects and tolerance programs are signs of transformation. According to the recent research in culturally responsive education, local culture transforms education if it shapes pedagogical decision-making, classroom interaction, and curriculum design but not just cultural representation ([Munir, 2025](#)). It is especially relevant for vocational education, where students should be able to combine cultural knowledge with their professional skills, behavior, problem-solving and working process.

Finally, there is another important aspect which is related to the multicultural dimension of PKJ. In particular, the student character assessment was made using the

strategy of triangulation, which included questionnaires for students, evaluation by teachers and behavioral observations during three months. Assessment of the student character was conducted on the five dimensions corresponding to the core PKJ

values: leadership and responsibility, tolerance and cultural appreciation, work ethic and discipline, critical and creative thinking and future orientation and resilience (Milleer, 2026).

Table 4. Comparison of Student Character Scores Between Full PKJ-Implementing and Non-PKJ Vocational High Schools (N = 720 Students)

Student Character Dimension	Full PKJ	Non-PKJ	Mean Difference
Leadership and responsibility	84.7	70.2	+14.5
Tolerance and cultural appreciation	86.2	69.8	+16.4
Work ethic and discipline	82.3	73.5	+8.8
Critical and creative thinking	79.1	68.4	+10.7
Future orientation and resilience	80.6	70.9	+9.7
Overall mean	82.3	71.6	+10.7

The results shown in Table 4 indicate that students in schools where full PKJ implementation was realized scored significantly higher mean character scores than those students in schools where PKJ had not been systematically implemented in all the five dimensions. Tolerance and cultural appreciation show the biggest difference of 16.4 points followed by leadership and responsibility (14.5 points) and critical and creative thinking (10.7 points). Work ethic and discipline have the lowest difference of 8.8 points but the difference is still significant. On average, students who attended schools where full PKJ implementation was realized have a mean character score of 82.3 compared

with 71.6 for the others producing a total difference of 10.7 points.

The high level of difference especially in tolerance and cultural appreciation is consistent with the core idea of *golong-gilig* in PKJ where the uniqueness of culture does not separate people rather it connects people and makes them have a united spirit. Therefore, in the diverse environment of vocational schools, this principle can form a foundation based on which students are encouraged to appreciate their differences and have a unified institutional identity. This result is also supported by the argument made by Sleeter (2018) and Uge et al. (2019) where multicultural education should be based on the cultural context of the local community.

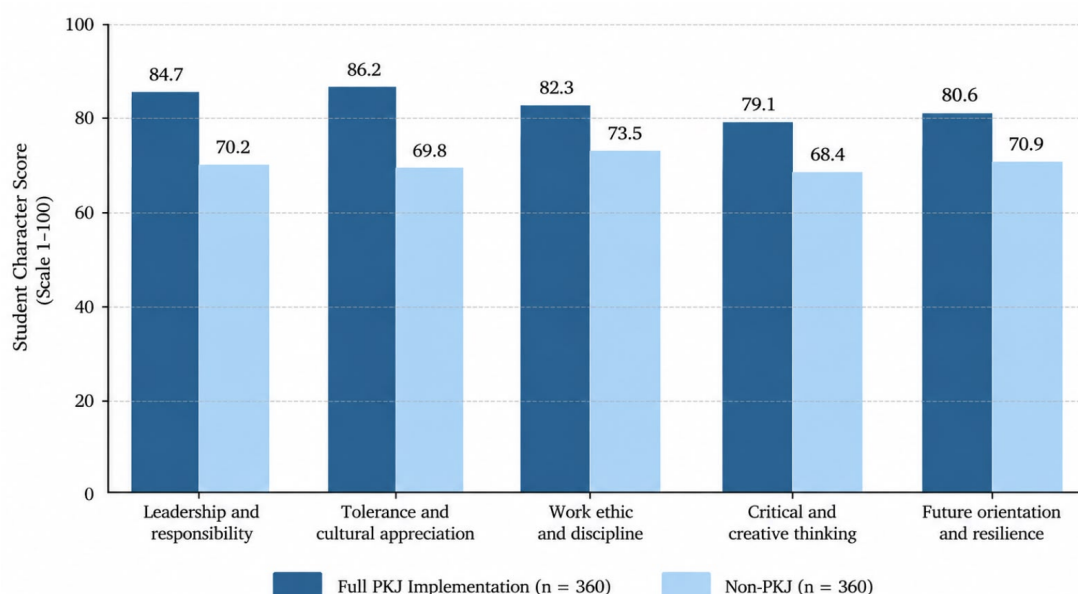


Figure 5. Student Character Scores by PKJ Implementation Status

Figure 5 presents the visualization of consistent differences in all character dimensions. This is crucial since the direction of the difference is the same: students in full-PKJ schools obtain higher scores in terms of leadership, tolerance, work ethic, critical and creative thinking, and future orientation. The largest difference is noted in terms of tolerance and cultural appreciation, whereas the smallest one in terms of work ethic and discipline (Nurrahman & Muhson, 2025). Therefore, the consistency of the findings allows interpreting the influence of PKJ implementation as the influence on a general pattern of character development.

However, it would be incorrect to assume that the findings prove the presence of a causal effect of PKJ on character development. The present study relies on a mixed-method, non-experimental design and the selection of purposive sample. Therefore, the differences found between the schools may be caused by some other factors, such as leadership, school resources, teacher capacity, school history, and difference in student population (Hattie, 2009). Accordingly, the results of the study prove the association

between PKJ implementation and higher character assessment scores.

The relationship between PKJ and character development can also be explained in the framework of character education theory. According to Ratana-Ubol & Henschke (2015), character education produces significant results only when values are implemented systematically rather than being presented as isolated lessons. This point is supported by the findings since PKJ is implemented through several domains, including school culture, extracurricular activities, learning practices, and social interactions. Moreover, the research into character education proves that the coherent alignment of institutional values, adult modeling, school climate, and opportunities for student participation is important for translating normative values into behavioral dispositions (Afandi et al., 2026). Thus, the relatively higher character scores of students attending full-PKJ schools may be viewed in the context of institutional ecology rather than classroom instruction alone.

The findings are especially important for vocational education. Schools of vocational

education are usually oriented at developing technical and occupational competencies; however, students also need interpersonal, ethical, cultural, and adaptive competencies in order to function effectively in professional settings. For instance, PKJ values of sawiji, greget, sengguh, ora mingkuh may be interpreted in terms of focus, perseverance, confidence, and resilience (Subekti, 2024). Such qualities are especially important for vocational learning because students have to collaborate with each other, find solutions to practical problems, adapt to innovations, and act professionally. Thus, the integration of local cultural values into vocational education provides an opportunity to combine technical and character competencies.

However, the integration of local wisdom into vocational subjects turned out to be the least prevalent multicultural practice (Table 3). This finding means that the most important challenge faced by teachers is not the recognition of the significance of PKJ but the difficulty in finding appropriate ways to integrate philosophical values in competency-based education, practical assignments, assessments, and industry-oriented instruction (Lubis et al., 2022). Research into culturally responsive vocational education suggests that such integration presupposes the connection between local knowledge and authentic occupational contexts rather than the connection of culture to instruction as an additional aspect (Darna et al., 2026).

In sum, the findings suggest that PKJ-based multiculturalism consists of two interconnected dimensions. First, there is the dimension of cultural affirmation, represented by the use of Javanese language and script, cultural traditions, arts, and heritage activities. Second, there is the dimension of social and pedagogical transformation, represented by tolerance programs and the integration of local wisdom into vocational

learning. The first dimension is relatively widespread, while the second dimension is less developed (Lickona, 2012). The distinction between these two dimensions provides an important insight into PKJ institutionalization: cultural identity preservation is important as the starting point; however, the educational value of PKJ becomes greater with the transformation of cultural values into social relations, classroom practices, and vocational competencies.

Thus, the evidence proves that PKJ provides a culturally meaningful framework for linking multicultural education and character development in the sphere of vocational education. The combination of cultural identity, golong-gilig-based social unity, character education, and vocational learning creates the potential of the coherent educational context where cultural identity and professional preparation can be complimentary rather than competitive processes (Kusumardi et al., 2026). These findings expand the multicultural education perspective of Hattie (2009) since they show how indigenous philosophical principles can serve as the culturally meaningful basis for institutionalizing multicultural practices. On the other hand, these findings confirm the claim about the importance of embedding character development in the school ecosystem rather than limiting it to specific instructional practices (Ranu et al., 2025). Thus, PKJ implementation can be viewed as the institutional process where local cultural identity, multicultural inclusion, and student character development become complementary dimensions of culturally responsive vocational education.

c. Institutional Mechanisms, Learning Innovation, and Implementation Challenges

The findings demonstrate that PKJ implementation in vocational high schools occurs not via one educational program but through the combination of organizational, pedagogical, cultural, and community-based mechanisms. The evidence gathered during in-depth interviews, focus group discussions

(FGDs), observations, and document analysis suggests that there are five major mechanisms through which PKJ values are translated into the practices: curriculum integration, school climate design, leadership by example, cultural extracurricular activities, and school-community partnerships (Fauzi et al., 2023). Thus, the PKJ implementation turns out to be the institutional process where cultural values are progressively embedded into school life.

Table 5. Mechanisms for Integrating *Pendidikan Khas Kejojgaan* (PKJ) into the Organizational Culture of Vocational High Schools

Integration Mechanism	Examples of Implementation in SMK	Major Challenge
Curriculum Integration	SMKN 1 Kasihan integrates sawiji-greget values into Performing Arts and Craft subjects; SMKN 2 Yogyakarta incorporates pamenthanging gandhewa into Civil Engineering project planning	Limited teacher training and PKJ-oriented instructional resources
School Climate Design	SMKN 1 Grimulyo uses Javanese script and PKJ philosophical expressions throughout classrooms and corridors; cultural murals and character displays are integrated into the school environment	Limited funding for renovation and shortage of culturally informed designers
Leadership by Example	The principal of SMKN 4 Yogyakarta applies ing ngarsa sung tuladha by arriving early and participating actively in cultural activities with students	Leadership turnover and absence of PKJ-based leadership criteria
Cultural Extracurricular Activities	Karawitan, jemparingan, pranatacara, and wayang activities are implemented as cultural extracurricular programs	Shortage of qualified instructors and scheduling conflicts with vocational examinations
School Community Partnerships	SMKN 1 Tempel conducts tembayatan programs with local communities and collaborates with the Yogyakarta Palace for cultural internship activities	Partnerships often depend on individual initiatives rather than institutional agreements

Table 5 shows that PKJ institutionalization takes place via mechanisms working at various levels of organization. Integration in the curriculum seems to be the closest way of connecting cultural values with formal education, while climate design in schools incorporates PKJ into the physical and symbolic space of the institution (Munir, 2025). Behavioral modeling through leadership by example, cultural extra-curricular activities as experience of engagement with culture, and community connections as broadening the scope of learning beyond the walls of the school are the ways to integrate PKJ (Milleer,

2026). All these mechanisms of PKJ integration demonstrate the multidimensionality of this process (Milleer, 2026).

The first mechanism is especially important since it decides whether PKJ will remain additional component of culture or will be embedded into vocational learning. Cases of Performing Arts, Craft, and Civil Engineering show that PKJ values can be connected with various vocational fields (Bound, 2011). Thus, the value of pamenthanging gandhewa can be perceived as commitment to direction, concentration, and goal orientation. Values such as sawiji,

greget, sengguh, and ora mingkuh can be connected with focus, perseverance, confidence, and resilience (Yumna et al.,

2024). The integration of cultural philosophy with vocational competencies is possible in this way.

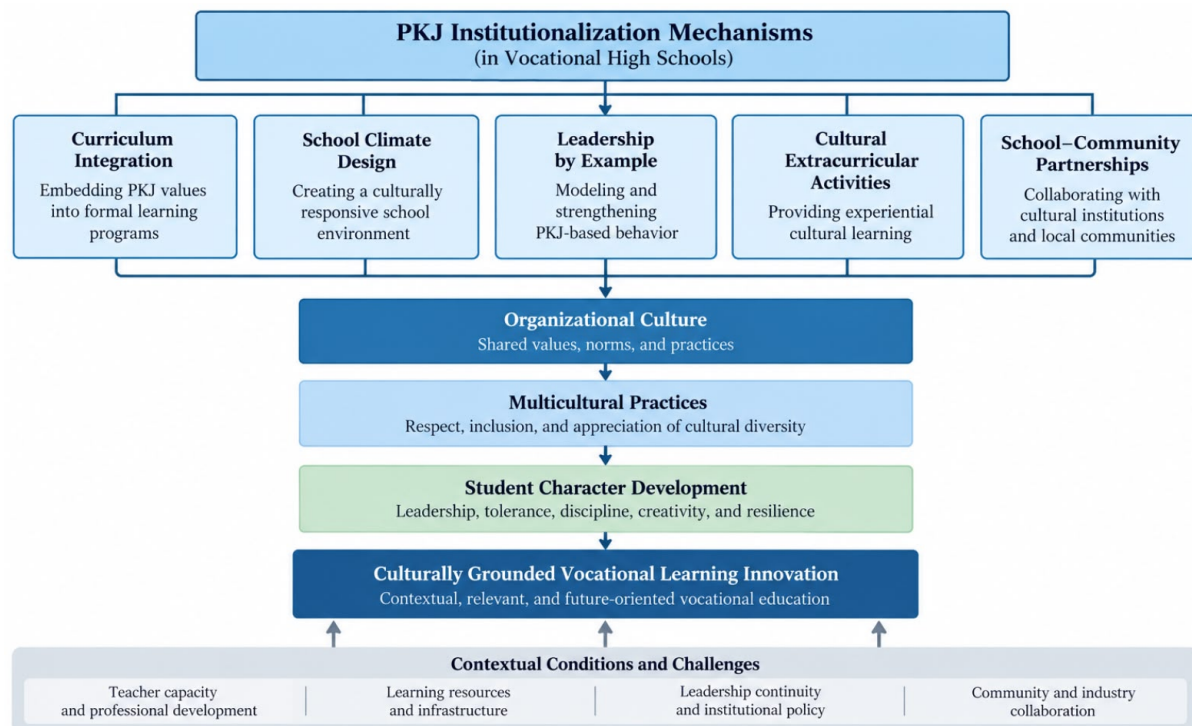


Figure 6. PKJ Institutionalization Mechanisms in Vocational High Schools

Figure 6 represents five interrelated mechanisms of institutionalizing PKJ values in vocational schools: curriculum integration, school climate creation, leading by example, cultural extracurricular activities, and school-community collaboration, resulting in organizational culture formation and cultural vocational learning innovation.

Figure 6 presents that PKJ institutionalization should be conceptualized as a set of interrelated mechanisms rather than a linear curricular intervention. Curriculum integration offers formal pedagogical access, while the climate and leadership create an organizational foundation to sustain the values (Sugiharti et al., 2026). Cultural extracurricular activities are the reinforcement component, and school-community collaboration ensures the authentic cultural context. The interaction of

these mechanisms is crucial because weaknesses in any component may reduce the sustainability of PKJ implementation and limit the continuity of culturally responsive learning practices (Enas & Bahtiar, 2025). In particular, superficial curriculum integration may occur without teachers' training, and sporadic extracurricular activities may happen without cultural instructors.

The second important conclusion is the relation between PKJ institutionalization and vocational learning innovation. The findings indicate that PKJ does not necessarily constrain innovation because of its emphasis on cultural tradition; instead, it can provide an ethical and culturally grounded basis for developing progressive, creative, and meaningful vocational learning experiences (Laili & Aziz, 2026). The significance of mangasah mingising budi values may be related to

critical and creative thinking, and pamenthanging gandhewa may be used to promote future orientation and persistence (Yanti et al., 2025). Likewise, the value of sawiji, greget, sungguh, ora mingkuh creates a cultural foundation for developing attention, initiative, self-confidence, and resilience. Therefore, it may be concluded that vocational learning innovation should not

only embrace novel technologies or methods but also include contextualization of the learning experience (Pradita et al., 2020).

In order to synthesize the qualitative results further, five mechanisms may be associated with the organizational functions and contributions to learning innovation as well as principal implementation barriers.

Table 6. PKJ Integration Mechanisms, Learning Innovation, and Implementation Challenges

Integration Mechanism	Organizational Function	Contribution to Learning Innovation	Principal Challenge
Curriculum integration	Embeds PKJ values into formal educational programs	Supports culturally contextualized vocational learning	Limited teacher capacity and PKJ-oriented teaching resources
School climate design	Creates a culturally responsive institutional environment	Strengthens cultural identity and student engagement	Financial and infrastructural constraints
Leadership by example	Establishes shared behavioral norms	Encourages consistency and continuity in PKJ practices	Leadership turnover
Cultural extracurricular activities	Provides experiential cultural learning	Develops creativity, collaboration, and cultural competence	Shortage of qualified cultural instructors and scheduling conflicts
School-community partnerships	Connects schools with cultural institutions and communities	Provides authentic cultural and vocational learning experiences	Limited institutionalization of partnerships

Table 6 shows an analytical synthesis of the mechanisms derived from the qualitative data. It is clear that all PKJ mechanisms have organizational roles and pedagogical implications. Curricular integration is connected with classroom practice, while leadership and school climate impact the institutional environment for innovative activity. Extracurricular activities and community partnerships extend learning outside school to authentic cultural settings (Rifqiansyah, 2025). On the other hand, the challenges show that the success of PKJ is determined by such factors as teacher capacity, leadership continuity, institutional resources, and external collaboration. Therefore, the sustainability of PKJ and its educational impact are closely related to the organizational capacity of vocational schools to maintain teacher development, learning

resources, leadership continuity, community partnerships, and continuous improvement of learning practices.

The qualitative data also reveal several persistent challenges in implementing progressive and culturally responsive vocational learning. Teacher capacity is one of the major challenges because teachers are responsible for translating philosophical and cultural ideas into competency-based, context-sensitive, and meaningful learning activities (Sadri & Temaja, 2025). Not only do teachers have to be familiar with PKJ concepts but also they require pedagogical strategies for linking local values with learning outcomes, vocational projects, assessment, and workplace-oriented competencies. Moreover, lack of PKJ-oriented textbooks and instructional materials adds to the teacher load since teachers should independently

develop contextual learning materials. These results confirm the idea that cultural education innovations require organizational capacity and expertise in addition to the policy endorsement (Mårtensson et al., 2024).

Leadership continuity is another challenge. The data show that PKJ-oriented practices might be endangered by changes in the school leadership since the continuity of cultural programs can be significantly influenced by the individual commitment of principals. This idea is supported by Schein's (2010) claim about the crucial role of leaders in organization culture transmission. Leadership by example establishes norms, but such norms are vulnerable without embedding into policies, leadership standards, institutional routines, and documentation. As a result, PKJ implementation should move beyond the person-dependent leadership to institutionally embedded practices.

This pattern can be noticed also in the case of community partnerships. Partnership

with cultural institutions, local communities, and Yogyakarta Palace offers authentic learning opportunities, but such partnerships are often dependent on individual initiative. These arrangements allow carrying out valuable short-term activities, but they are fragile in terms of individual dependence and conflicting priorities (Purbonuswanto et al., 2024). Formal agreements, partnership protocols, joint programs, and clearly stated roles could promote the continuity of school and community cooperation (Budianto et al., 2026). From this point, community partnership should not be considered as an additional resource for extracurricular activities but as a part of the vocational school's learning ecosystem.

Combining these findings, we can construct a conceptual relationship between PKJ, organizational culture, multiculturalism, character development, and vocational learning innovation.

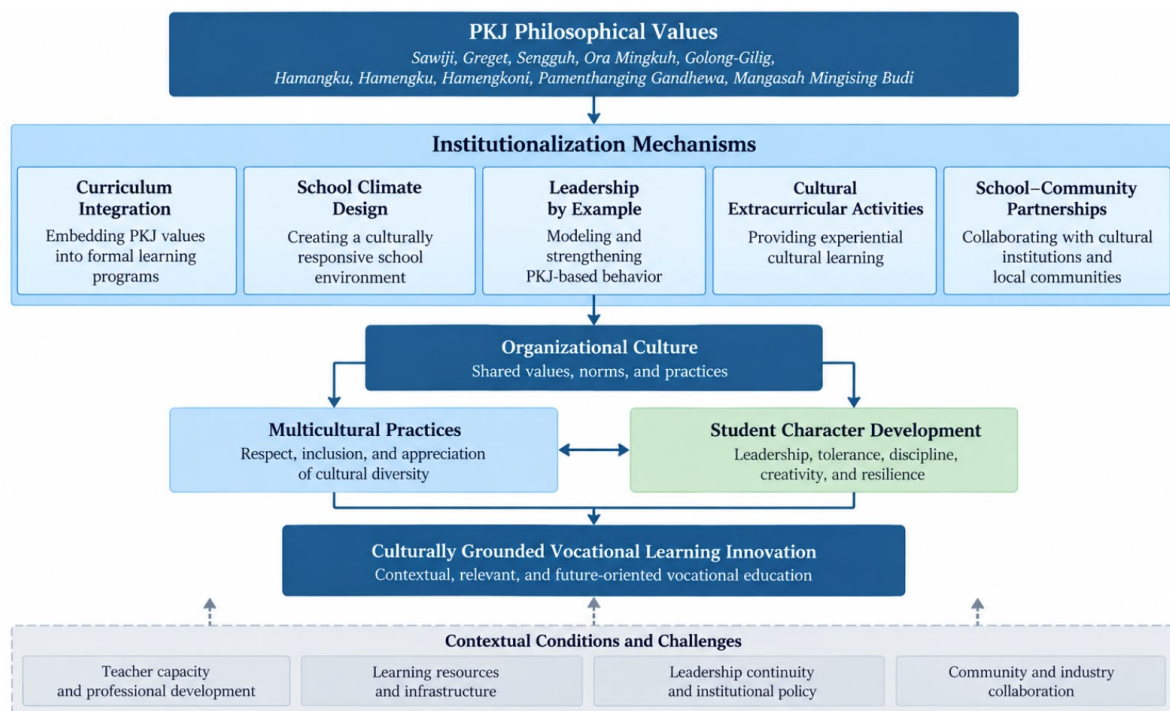


Figure 7. Integrated Model of PKJ-Based Vocational Education

Figure 7 depicts the integrated model of PKJ developed based on the results, describing the path from PKJ philosophical values via institutionalization mechanisms to organizational culture, multicultural education, student character development, and innovation of culturally grounded vocational learning.

In Figure 7, the major synthesis of the study consists of positioning PKJ as an institutionalizing framework instead of its presentation as just a cultural curriculum part. First, the model includes PKJ philosophical values as the initial point followed by five institutionalization mechanisms: curriculum, school climate, leadership, extracurricular activities, and community partnerships (Prasadityo et al., 2024). As a result of institutionalization of all five mechanisms, PKJ leads to the creation of organizational culture which provides an environment for multicultural practices and student character development (Ratana-Ubol & Henschke, 2015). Finally, the innovation of culturally grounded vocational learning occurs. Implementation challenges are also positioned as contextual conditions that can reinforce or limit institutionalization at each step.

Such an integrated understanding confirms the results of other researches regarding PKJ association with character formation and culturally grounded school practices (Layli et al., 2023). Nevertheless, the current study adds another dimension to this discussion since it positions PKJ in the context of vocational education ecosystem instead of discussing cultural identity, character education, organizational culture, and vocational competence separately. It is especially crucial in vocational education since learners have to obtain technical skills together with professional ethics, cooperation

abilities, adaptability, responsibility, and resilience.

The current findings support the point made by Layli et al (2023) that culturally grounded education should navigate the balance between the issues of local identity and modernization. In the current context, such a relationship is not mutually exclusive since the philosophy of *pamenthanging gandhewa* can serve as an example of this. Thus, cultural rootedness can be reconciled with future orientation through translating local values into modern education practices. Similarly, *sawiji*, *greget*, *sungguh*, *ora mingkuh* can become a culturally grounded foundation of resilience and professional responsibility for increasingly dynamic vocational environment (Agus Mursidi, 2025).

Therefore, the results prove that PKJ implementation needs systematic institutionalization rather than cultural activities. Five mechanisms considered in the current study interact with each other to institutionalize local philosophical values in curriculum, organizational behavior, school climate, extracurricular activities, and community relationships (Irvaniyah et al., 2025). At the same time, the implementation challenges show that such an institutionalization process needs continuous teacher development, sufficient learning resources, consistent leadership, and formalized partnerships (Diwanti & Perdana, 2025). The major contribution of the section is the identification of PKJ as an integrative mechanism linking organizational culture, multicultural education, student character development, and vocational learning innovation in a culturally grounded educational framework (Pradita et al., 2020).

4. Conclusion

The present study demonstrates how the institutionalization of PKJ in vocational high schools in Yogyakarta can support progressive and context-sensitive education through integrated mechanisms of curriculum integration, learning-environment design, exemplary leadership, cultural extracurricular activities, and school-community collaboration. According to the results, schools where PKJ implementation is more systematic show stronger organizational culture concerning leadership, co-operation, work ethics, innovation, and future orientation; they also practice multiculturalism more actively. Furthermore, the quantitative data reveal that students in schools where PKJ is implemented fully scored higher in terms of leadership and responsibility, tolerance and cultural tolerance, work ethics and discipline, critical and creative thinking, and future orientation and resilience. This shows how PKJ serves as an institutional framework within which the regional cultural values could be implemented not only during learning process but also through the organizational culture and character development. At the same time, sustainable PKJ implementation depends on teachers' capacity to integrate local values into learning, access to appropriate learning resources, leadership continuity, and sustained partnerships with cultural institutions and local communities. Thus, the contribution of PKJ to vocational education is best described as an integrative culture-based framework that unites the organizational culture, multicultural education, character development, and innovation of vocational learning. The current study extends research on local wisdom-based education by demonstrating how a regional cultural framework can contribute to advanced, challenging, design-oriented, progressive, and sustainable vocational learning when cultural values are systematically integrated into curriculum,

organizational culture, learning practices, and community partnerships.

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