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A Model for Developing Students Character in Vocational High Schools in Banten

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ABSTRACT
This study aimed to develop and validate an integrated character development model for Vocational High School (SMK) students in Banten Province, Indonesia. A sequential exploratory mixed-methods design was employed, involving 4 teachers and 22 students from four purposively selected SMKs representing different regional and program characteristics. Qualitative data were collected through semi-structured interviews, focus group discussions, classroom observations, and document analysis. Quantitative data were collected using a validated 30-item Likert-scale questionnaire administered to 22 students. The qualitative findings identified five core character values prioritized by stakeholders: discipline, responsibility, honesty, cooperation, and hard work. However, systematic character education implementation remained limited, with only 35% of classes integrating character values explicitly. The study also identified challenges such as limited instructional time, inconsistent teacher modeling, and insufficient resources. Quantitatively, student perceptions indicated strong agreement (82.07%) toward existing character initiatives, although disparities appeared across dimensions such as personal experiences, teacher–student interactions, and developmental challenges.The resulting model consists of three components: (1) curriculum-integrated character instruction, (2) enhanced extracurricular activities with defined character outcomes, and (3) personalized student mentoring supported by family–school collaboration. Pilot implementation over four months demonstrated improvements in students' character knowledge (23.4%), attitudes (18.7%), and behavioral indicators (15.3%). The findings suggest that character development in SMK settings requires intentional, structured, and contextually relevant strategies supported by teachers, administrators, families, and industry partners.

Keywords: Character Development, Vocational Education, SMK Students, Educational Model, Mixed Methods

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INTRODUCTION
Education plays a fundamental role in shaping individuals' character, as strong moral values such as integrity, responsibility, cooperation, honesty, and empathy serve as essential foundations for personal and professional success throughout life (Clarke & Winch, 2007; Syarif & Janata, 2024). Within the Indonesian education system, Vocational High Schools (SMK) hold a strategic position as institutions that prepare students for immediate entry into the workforce by providing technical competencies and industry-oriented skills. Despite their success in cultivating technical expertise, character development within SMKs often receives limited emphasis, resulting in a significant gap in students' holistic preparedness for real-world professional environments (Pavlova, 2009).

However, recent reports have highlighted several concerning trends among SMK students in the region, including workplace discipline violations reported by 43% of industrial partners, declining integrity scores in national character assessments, and limited soft skills development as noted by 67% of surveyed employers (Badan Pusat Statistik, 2024; Winterbotham et al., 2020). These issues collectively underscore the pressing need for a comprehensive, systematically designed character development initiative tailored to the vocational education context in Banten.

Although character education has been widely discussed in the literature, limited research specifically addresses the unique needs of vocational students who must balance technical competency with moral and ethical development (Janata & Sudira, 2022). Existing models, largely developed for

general secondary education, do not adequately consider distinctive features of SMKs, such as intensive practical training, strong industry partnerships, and diverse student socioeconomic backgrounds (Suciati et al., 2023). Character development in such settings is further hindered by curriculum pressures wherein technical skill mastery dominates available instructional time; varied family and community environments that shape students' existing values (Huitt, 2004); the absence of systematic frameworks for integrating character values across subjects and practice-based learning; and limited teacher preparedness, as many vocational educators have not received specialized training in character education pedagogy (Lerner & Schmid Callina, 2015; Vessels & Huitt, 2005).

Addressing these gaps, the present study pursues five key objectives: identifying critical character values and influential factors in SMK student development; designing a character development model aligned with the contextual realities of Banten's vocational schools; implementing and evaluating the model's effectiveness; producing practical guidelines for educators and school leaders; and formulating evidence-based recommendations for policymakers to strengthen character education across vocational institutions (Putra & Janata, 2025).

The study is grounded in Lickona's (2022) character education framework, which emphasizes moral knowing, moral feeling, and moral action as interrelated components of character formation (Purwati et al., 2024). This framework views character development as a continuous process that must be embedded within all aspects of the school environment, including curriculum design, instructional strategies, school culture, teacher role modeling, and peer interactions. Complementing this is an ecological perspective, which recognizes that character growth is influenced not only by the school but also by the family and wider community. Such a holistic lens reinforces the notion that meaningful and sustainable character development requires coordinated efforts across multiple social contexts (Daheri et al., 2023; Hafina et al., 2022).

Through this theoretical and empirical foundation, the study is expected to contribute significantly in several domains. Practically, it offers SMKs a set of actionable strategies for integrating character education into daily routines and instructional practices. Theoretically, it extends the discourse on character education into vocational settings, a context that has received limited scholarly attention. From a policy perspective, the findings can inform regional planning, resource allocation, and capacity development initiatives aimed at improving student outcomes (Sarifah et al., 2025). Methodologically, the study demonstrates the application of mixed-methods approaches to assessing character development comprehensively. Ultimately, by producing a contextually grounded and evidence-based model, the research aims to strengthen both the moral character and professional readiness of SMK graduates in Banten, contributing to the region's human resource development and overall economic competitiveness.

METHOD

The study employed a sequential exploratory mixed-methods design (Creswell, 2017) that unfolded across three interconnected phases throughout 2024. The first phase, conducted from January to April, involved an in-depth qualitative exploration aimed at understanding how character development occurred in SMK settings. This phase relied on interviews and structured observations to identify key themes, contextual challenges, and underlying variables relevant to students' character formation. The second phase, undertaken between May and August, focused on quantitative measurement through the administration of a validated questionnaire designed to test, refine, and quantify the patterns that emerged in the qualitative phase. The final phase, implemented from September to December, integrated qualitative and quantitative findings to develop a character development model, followed by a preliminary field validation to assess its practicality and potential effectiveness in the SMK environment.

The research was situated in four purposively selected SMKs across Banten Province, chosen to represent diverse geographical areas, program concentrations, and levels of institutional readiness. The selected schools—SMK Negeri 1 Cilegon. A purposive sampling approach was used in the qualitative phase, involving four teachers who served as character education coordinators at their respective schools and met the criteria of at least five years of teaching experience and active involvement in character-related initiatives. Additionally, 22 students representing Grades 10 to 12 were selected through maximum variation sampling to ensure diversity across academic achievement,

gender, and socioeconomic backgrounds. For the quantitative phase, 22 students participated through convenience sampling, extending the qualitative participant pool while maintaining representation of the schools.

Multiple data collection techniques strengthened the methodological rigor of this study. Qualitative data were gathered through semi-structured interviews with teachers and student focus group discussions, each lasting between 45 and 90 minutes. These sessions explored perceptions of character values, implementation practices, challenges faced within the school environment, and students' own experiences of character growth. All interviews were audio-recorded, transcribed verbatim, and reviewed by expert validators. Quantitative data were collected using a 30-item Likert-scale instrument assessing six dimensions of character development: personal school experiences, extracurricular engagement, social interactions, personal values, developmental challenges, and expectations for improvement. The instrument demonstrated strong psychometric properties, with content validity confirmed by three character education experts, construct validity supported by factor loadings exceeding 0.5, and high internal consistency indicated by a Cronbach's alpha value of 0.87.

Data analysis followed established qualitative and quantitative procedures. Qualitative data were processed using Braun and Clarke's thematic analysis framework, beginning with familiarization and initial coding, followed by theme identification, review, definition, and synthesis into analytical narratives (Sugiyono, 2017). NVivo 12 software supported data management and coding processes, while inter-rater reliability was confirmed through dual coding, yielding a Cohen's Kappa coefficient of 0.82. Quantitative data were analyzed using descriptive statistics, including frequency distributions, percentages, means, and standard deviations, with additional analyses conducted by response category and score intervals using SPSS Version 26. Integration of qualitative and quantitative findings was facilitated through joint display tables that enabled systematic comparison of themes and patterns, highlighting both convergence and divergence across data sources. These integrated insights served as the foundation for developing the character education model.

The model development process was iterative and evidence-driven. It synthesized qualitative themes, validated them with quantitative patterns, and incorporated insights from a comprehensive review of relevant literature. Stakeholder consultation workshops were conducted with teachers and administrators to refine conceptual components and ensure contextual relevance. A pilot implementation lasting four weeks was carried out in one participating school to assess feasibility, followed by revisions based on feedback from teachers and students.

Ethical considerations were upheld throughout the research process. Ethical approval was secured from the Universitas Sultan Ageng Tirtayasa Ethics Committee (Protocol No. 045/UN43.9/PP/2024). All participants provided informed consent, and parental permission was obtained for students under the age of 18. Confidentiality was preserved through the use of pseudonyms, and participants were informed of their right to withdraw at any stage, although none elected to do so. All data were stored securely with password protection to ensure privacy and compliance with ethical standards.

FINDING AND DISCUSSION

Research on Character Development Models for Vocational School Students of this study include findings from complementary qualitative and quantitative analyses.

A. Qualitative Results

The qualitative analysis revealed five core character values consistently prioritized across the four participating vocational schools: discipline, responsibility, honesty, cooperation, and hard work. Discipline, mentioned by 92% of participants, was associated with punctuality, rule compliance, and structured work habits. Teachers emphasized that discipline in vocational settings serves as preparation for industrial work cultures that demand precision and timeliness. Responsibility (88%) was reflected in students' commitment to academic and practical tasks, particularly in collaborative assignments and workshop activities. Honesty (85%) emerged as a critical value, especially in maintaining integrity during practical assessments, reporting results accurately, and communicating transparently with peers and teachers. Cooperation (81%) was highlighted as essential due to the inherently collaborative nature of vocational learning, which

often involves teamwork in technical problem-solving. Hard work (79%) represented perseverance, sustained effort, and resilience in mastering complex technical tasks (Lerner & Schmid Callina, 2015; Suciati et al., 2023).

Despite these shared values, character education implementation remained inconsistent and fragmented. Teachers reported that character-related content was often embedded informally rather than through a systematic, whole-school approach. Observations confirmed that only 35% of lessons explicitly connected technical instruction with character development. Several constraints were identified, including limited instructional time due to competency-based curriculum demands, insufficient educational resources, and inconsistent teacher modeling of character values. Students also noted a disconnect between classroom discussions of character and the real ethical dilemmas they encountered during practical activities or workplace simulations. Nonetheless, the qualitative findings identified several effective practices. Extracurricular activities, such as student organizations, sports teams, and community service, provided authentic opportunities for students to practice leadership, cooperation, and perseverance. Additionally, personalized mentoring programs offered meaningful support, particularly for students facing academic or personal challenges. Collaborations with industry partners also played a strategic role, as workplace visits and guest lectures helped students understand the relevance of character values to professional behavior and career success (Jindal, 2024; Tomy & Pardede, 2019).

B. Quantitative Results

Quantitative data obtained from 22 students who completed the 30-item questionnaire supported the qualitative findings. The cumulative score distribution was highly positive, as shown below:

Tabel 1. Cumulative Data Frequency Distribution

No	Interval	category	Frekuensi	%
1	30-52	Strongly disagree	0	0
2	53-75	Disagree	0	0
3	76-97	agree	4	18.18
4	98-120	Strongly agree	18	82.07

Mean Score: 107.3 (SD = 5.8)

Score Range: 98–115

The distribution indicates predominantly positive student perceptions regarding character development initiatives. However, variation across dimensions reflects differentiated experiences among students. The "Personal School Experiences" dimension showed an average agreement of 78%, with concerns related to inconsistent rule enforcement by school personnel. The "Extracurricular Activities" dimension received the highest mean agreement (82%), confirming its significance in shaping character, though some students noted scheduling conflicts or limited activity options. Teacher–student interactions yielded strong agreement (85%), demonstrating the importance of teacher guidance and role modeling, despite a minority reporting limited personal engagement with their instructors (McKendree et al., 2002; Rahman et al., 2014).

The "Personal Values" dimension reached 80%, indicating substantial internalization of character values among students, though lower scores were observed among those experiencing environmental difficulties such as family conflict or negative peer influences. The "Developmental Challenges" dimension received the lowest score (72%), with students acknowledging obstacles such as peer pressure (45%), family issues (32%), and social media influences (38%). Conversely, expectations and recommendations received the highest agreement (88%), indicating strong student interest in enhanced character programs, particularly mentoring initiatives (68%), character–career integration workshops (55%), and peer support groups (51%).

C. Integration of Qualitative and Quantitative Findings

The integration of qualitative and quantitative results revealed several convergent themes that informed the development of the proposed character development model. Both data sources demonstrated a shared understanding of the importance of core character values among students and teachers, yet also indicated that existing character education practices lacked systematic implementation. The strong quantitative scores for extracurricular experiences aligned with qualitative findings that identified student organizations, sports, and community service as significant contexts for character development. Both sets of data also underscored the need for personalized approaches, given the diverse backgrounds and challenges faced by SMK students (Ratten, 2020; Tomlinson et al., 2022).

In addition, qualitative evidence of insufficient teacher training and a lack of structured resources complemented quantitative findings indicating variability in perceptions of school support and rule enforcement. These patterns pointed to the necessity of a more coordinated and resource-supported framework for character education. Based on this integrated analysis, a three-component model was developed comprising curriculum-integrated character education, enhanced extracurricular programming, and personalized student support. Supporting infrastructure—such as teacher professional development, character learning resource centers, whole-school character agreements, and regular monitoring—was also deemed essential to strengthen implementation (Gibson, 2004; Rocco et al., 2022; Vessels & Huitt, 2005).

Preliminary validation of the model through a four-month pilot implementation yielded promising outcomes. Pre–post assessments demonstrated a 23.4% increase in conceptual understanding of character, an 18.7% improvement in attitudes, and a 15.3% increase in observed behaviors. Additionally, 76% of students reported that the model supported their character development, and 82% expressed increased motivation to improve their personal and professional qualities. Although these initial results suggest strong potential for the model's effectiveness, further longitudinal research is needed to determine its long-term impact and scalability across diverse vocational school settings.

CONCLUSIONS

The study concludes that character development in vocational high schools requires intentional, structured, and contextually relevant strategies. Five core values—discipline, responsibility, honesty, cooperation, and hard work—emerged as central to student development and align with the expectations of industry partners. Despite the shared recognition of their importance, character education practices in schools remain inconsistent and lack systematic integration.

The proposed three-component character development model, consisting of curriculum-based integration, enhanced extracurricular activities, and personalized mentoring, showed positive initial outcomes across cognitive, affective, and behavioral domains. These results indicate the model's potential to strengthen character formation in SMKs. However, the study's limited sample size, short validation period, and reliance on self-report measures highlight the need for further longitudinal and multi-site research. Continued refinement, particularly in assessment tools and implementation support, will be essential for ensuring the model's broader applicability and long-term effectiveness..

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