

Organizational participation, character development, and digital competence: Building teacherpreneurship in vocational teacher education under the Merdeka Belajar framework

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ABSTRACT

Teacherpreneurship has emerged as a strategic response to the growing demand for teachers who are not only pedagogically competent but also creative, opportunity-driven, and digitally literate. However, limited empirical evidence explains how organizational participation and character formation interact to shape entrepreneurial readiness among prospective vocational teachers, particularly within the Merdeka Belajar framework. This study employs an explanatory sequential mixed-methods design to examine the relationships between organizational participation, character development, and teacherpreneurship. Quantitative data were collected from 120 students using validated instruments, followed by qualitative interviews, focus group discussions, and observations involving 24 purposively selected participants. Statistical analyses, including multiple regression and structural equation modeling, indicate that organizational participation significantly predicts teacherpreneurial readiness, with character development acting as a partial mediator. Students demonstrated strong creativity, leadership, and digital competence, yet faced persistent challenges related to risk-taking, time management, institutional bureaucracy, and limited commercialization literacy. The qualitative findings further reveal identity shifts as students increasingly positioned themselves as innovators capable of developing educational products and digital learning services. SWOT analysis highlights that technological advancement and flexible curriculum opportunities outweigh threats such as competition and automation. The study concludes that teacherpreneurship requires a synergistic integration of experiential organizational learning, character education, and digital entrepreneurship training. Implications are directed toward vocational teacher education institutions to embed credit-bearing organizational engagement, structured mentorship, and micro-grant schemes aligned with Merdeka Belajar policies. These findings contribute to expanding theoretical perspectives on teacherpreneurship while offering practical strategies for strengthening vocational teacher preparation in rapidly evolving educational ecosystems.

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INTRODUCTION

The rapid advancement of information and communication technology is reshaping education, yet teacher quality and employability remain persistent challenges. Every year, Indonesian Teacher Education Institutions (LPTK) produce approximately 350,000 graduates, while the annual demand for teachers is only around 150,000. This oversupply is exacerbated by the poor quality of many graduates, as reflected in the 2019 Teacher Competency Test (UKG), in which national scores

were below expected standards. Such conditions highlight the urgency of rethinking teacher education to foster more competitive and innovative educators.

The Ministry of Education introduced the Merdeka Belajar policy to promote flexible learning pathways and critical thinking (Lv et al., 2022; Rönnlund, 2014; van der Zanden et al., 2020; Zuurmond et al., 2018). For vocational teacher education, this policy must not only focus on pedagogy but also foster entrepreneurial competencies. The concept of teacherpreneurship—teachers with entrepreneurial skills and mindsets—has gained prominence as a strategy to ensure relevance in a knowledge-based, digital economy.

Previous studies have mainly explored teacher motivation, professional development, and curriculum innovation (Kholifah et al., 2024). Research has also emphasized character education through initiatives such as the Pancasila Student Profile (Nurdyansyah et al., 2022). Allais and Schöer (2025) further identified structural complexities in vocational systems that hinder the alignment between educational outcomes and industrial requirements. However, few studies have explicitly combined entrepreneurial character development, organizational engagement, and policy frameworks like Merdeka Belajar in the context of vocational teacher preparation. This leaves a critical gap in understanding how student organizations and experiential learning opportunities can systematically foster entrepreneurial competencies in future teachers.

This research introduces an integrated approach that combines character development, organizational participation, digital skills, and entrepreneurial readiness within the Merdeka Belajar framework. Unlike prior studies that treated these components separately, this study treats them as interdependent factors in the development of teacherpreneurs. Furthermore, the use of a concurrent mixed-methods design strengthens the novelty by capturing both measurable correlations and qualitative insights into organizational involvement and entrepreneurial growth.

The research contributes theoretically by expanding the discourse on vocational teacher education to include teacherpreneurship as a vital component of professional identity. Practically, it offers a strategic model for LPTK to integrate organizational participation, project-based learning, and off-campus experiential programs to nurture entrepreneurial teachers. From a policy perspective, the findings support aligning MBKM initiatives with entrepreneurial and character-based outcomes.

This study also emphasizes the integration of digital competencies into teacherpreneurship. Digital platforms such as YouTube, social media, and online learning tools have become central to how future teachers design and disseminate knowledge. Teacherpreneurs are expected not only to innovate in pedagogy but also to harness digital tools for content creation, outreach, and entrepreneurial projects. Previous studies have shown that digital competence enhances creativity, motivation, and employability in vocational contexts (Liu, 2020; Setuju et al., 2024). Global reports also highlight formal approaches to developing teachers' digital competence, such as standards, professional training, and institutional ecosystems (OECD, 2023). In vocational education and training (VET), an integrated whole-institution approach involving leaders, educators, and learners is considered crucial for sustainable digital transformation (Zhong & Juwaheer, 2024).

Furthermore, research on pre-service teachers in Norway demonstrates that digital critical competence—the ability to critically evaluate digital sources—is an essential part of professional identity (Leming & Johanson, 2023). A recent study in China also shows that teachers' digital competence varies with teaching experience, institutional policy support, and learning motivation, further underscoring contextual influences (Shi et al., 2025). Finally, digital entrepreneurship education has been shown to strengthen the link between digital skills and economic outcomes, positioning digital competence as a key driver for teacherpreneurship in vocational settings (Maziriri et al., 2024). By including digital studies, this research highlights the essential relationship between teacherpreneurship and digital tools, positioning digital literacy as a core entrepreneurial skill. This integration ensures that findings are relevant to the contemporary educational landscape, where digital transformation defines both opportunities and challenges.

To achieve these contributions, a mixed-methods approach was chosen not only to identify correlations between organizational activity and entrepreneurial skills but also to uncover the qualitative dimensions of motivation, institutional support, and cultural factors. This methodological choice ensures that the findings can both quantify and explain the processes underlying teacherpreneurship. The researcher expects that this approach will provide clear strategic directions

for teacher education institutions, ensuring that findings are actionable, evidence-based, and aligned with the novelty of integrating entrepreneurship into vocational teacher training.

Nurdyansyah et al. (2022) examined the Pancasila Student Profile Strengthening Project, focusing on character-building activities that function independently of curricular requirements. This research will examine the integration of teacherpreneurship initiatives into vocational training to equip students with essential entrepreneurial skills and experiences. A significant study investigated the Merdeka Curriculum and its integration of industry input within vocational contexts (Yoto et al., 2024). This study examines the similarities between student-led initiatives and external partnerships in educational institutions as mechanisms for fostering teacherpreneurship.

This study utilizes a mixed-methods approach to address existing gaps, integrating contemporaneous triangulation of quantitative and qualitative data collection and analysis. Surveys and structured interviews with students and faculty in the faculty of teacher training and education provide insights into their preparedness for and obstacles to adopting teacherpreneurial roles. Observational data provide additional qualitative insights, enhancing understanding of the potential impact of active participatory models on teacherpreneur characteristics.

Based on the initial findings, the incorporation of digital studies in this research stems from the growing recognition that teacherpreneurship—in which teachers adopt entrepreneurial approaches in their teaching—significantly depends on the effective use of digital tools. In today's technology-driven educational landscape, digital competence has become an essential element, integral to both innovative teaching practices and an entrepreneurial mindset within education. The readiness of vocational teacher education students to engage in teacherpreneurial activities appears to be influenced by their intrinsic motivation (Liu, 2020), their time-management skills, and the presence of supportive external systems.

While students demonstrate proficiency in creating educational content, employing digital tools, and participating in academic research, various environmental and structural constraints impede the pursuit of more sophisticated entrepreneurial ventures. The results further reveal a significant positive relationship between participation in student organizations and the development of teacherpreneurial qualities. This supports the assertions made by Yasdin et al. (2023) regarding the essential role these organizations play in fostering character development and reinforcing the values of vocational education.

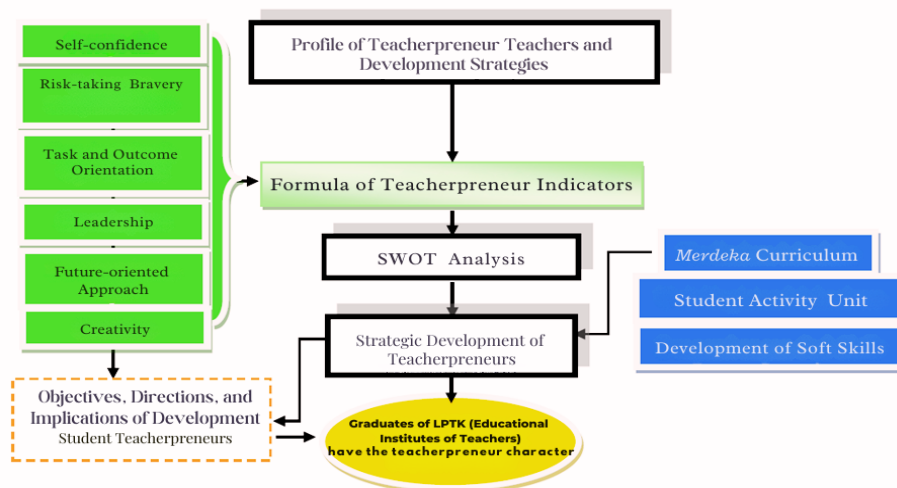


Figure 1. Conceptual Framework

This study highlights the importance of integrating off-campus experiential learning activities, such as internships, student exchanges, and organizational participation, into the development of character and entrepreneurial skills for vocational teacher students. Integrating these experiences into the Merdeka Belajar framework Suprptono et al. (2022) is essential for equipping future educators to effectively manage the convergence of pedagogy, entrepreneurship, and digital innovation. The proposed educational model integrates entrepreneurial training with digital studies,

providing students with essential adaptive problem-solving skills, an understanding of market dynamics, and technological fluency. This approach prepares them to effectively navigate and respond to changes in the global economy. This integrated approach underscores the significance of teacherpreneurship as a contemporary, digitally oriented educational strategy. It ensures that vocational teachers possess not only pedagogical skills but also the agility and readiness for innovation necessary to address the challenges of a rapidly changing world

METHOD

This study employed an explanatory sequential mixed-methods design to investigate the relationship between organizational participation, character development, and teacherpreneurial readiness among prospective vocational teachers within the Merdeka Belajar framework. The explanatory sequential design was selected because the study first sought to identify patterns and relationships quantitatively and subsequently used qualitative evidence to provide a deeper explanation of the quantitative findings (Creswell & Clark, 2018). Accordingly, the research was conducted sequentially through a quantitative phase followed by a qualitative phase, with the findings from both phases integrated during interpretation. This design enabled the study not only to determine the statistical relationships among the variables but also to examine how organizational experiences, institutional conditions, and students' perceptions contributed to the development of teacherpreneurial characteristics.

The study was conducted at the Faculty of Teacher Training and Education, Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia, involving undergraduate students enrolled in vocational teacher education programs. Eligible participants were students in their final or penultimate year who had completed microteaching and school-based field experience, thereby ensuring that they had relevant pedagogical and professional learning experiences. In the quantitative phase, 120 students were recruited using stratified purposive sampling to represent different vocational fields, including engineering, business, and hospitality. Following the quantitative analysis, a purposive subsample of 24 students was selected for the qualitative phase to represent variations in teacherpreneurship scores and levels of organizational participation. Of these participants, 12 participated in semi-structured individual interviews, while the remaining 12 participated in two focus group discussions consisting of six participants each. In addition, non-participant observations were conducted during three classroom and student-organization activities to provide contextual evidence regarding students' participation and teacherpreneurial practices.

Quantitative data were collected using instruments measuring teacherpreneurship, organizational participation, character development, and perceptions of institutional support. The Teacherpreneurship Scale (TPS), developed for this study based on entrepreneurial-character and teacher-identity constructs, employed a five-point Likert response format to measure students' teacherpreneurial characteristics. The Organizational Participation Inventory (OPI) measured formal and informal involvement in student organizations, committees, and community-based activities, whereas the Character Development Index (CDI) assessed dispositions relevant to teacherpreneurship, including integrity, perseverance, initiative, and collaboration. Students' perceptions of institutional support were assessed using a service-satisfaction measure adapted in structure from the CSQ-8 (Attkisson & Greenfield, 2004). Prior to the main analysis, the multi-item instruments were pilot-tested to examine their psychometric properties. Reliability and construct validity were assessed, with exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) applied to evaluate the underlying measurement structure.

Data collection was conducted sequentially in accordance with the mixed-methods design. Following ethical approval and informed consent, the quantitative survey was administered online to the 120 participants through a secure platform. In addition to the primary study variables, demographic and background information, including age, gender, vocational field, and previous exposure to entrepreneurship, was collected. The quantitative findings were subsequently used to identify participants and issues requiring further exploration during the qualitative phase. Semi-structured interviews and focus group discussions explored students' motivations for organizational participation, experiences of character development, perceived barriers to teacherpreneurial

practices, institutional support, and interpretations of Merdeka Belajar in their educational experiences. Non-participant observations were used to complement the self-reported data by examining participation and interaction during selected teaching-practicum and student-organization activities. Interviews and focus group discussions were audio-recorded with participants' consent and transcribed verbatim for analysis.

Quantitative data analysis was conducted using SPSS and AMOS. Descriptive statistics were initially calculated to characterize the participants and examine the distributions of the study variables, followed by reliability and factor analyses to evaluate the measurement properties of the instruments. Bivariate correlation analysis was used to examine relationships among organizational participation, character development, and teacherpreneurial readiness. Multiple regression analysis was subsequently conducted to determine the predictive contribution of organizational participation and character dimensions to teacherpreneurial readiness while accounting for relevant participant characteristics. For ordinal outcomes, proportional odds regression was employed where appropriate. Path analysis and structural equation modeling (SEM) were then used to examine whether character development mediated the relationship between organizational participation and teacherpreneurial readiness. Statistical significance was determined at $p < .05$, with relevant coefficients and effect estimates reported to support interpretation of the relationships.

Qualitative data from interviews, focus group discussions, and observational notes were analyzed thematically following the principles of Braun and Clarke (2006). The analysis involved familiarization with the data, initial coding, identification and refinement of themes, and interpretation of the themes in relation to the quantitative findings. Open-ended responses and action-planning artifacts were additionally examined using conventional content analysis (Hsieh & Shannon, 2005). Particular attention was given to themes concerning organizational experiences, leadership, entrepreneurial identity, digital competence, institutional support, and barriers to teacherpreneurial development. Trustworthiness was strengthened through triangulation across interviews, focus groups, observations, and quantitative findings, as well as through member checking and maintenance of an audit trail.

Integration occurred after the quantitative and qualitative analyses had been completed. Quantitative results, including correlations, regression coefficients, and mediation patterns, were compared with qualitative themes to determine areas of convergence, complementarity, and divergence. The qualitative findings were specifically used to explain statistical relationships identified during the first phase, consistent with the explanatory sequential design. The integrated findings were subsequently synthesized through a SWOT analysis to identify internal strengths and weaknesses and external opportunities and threats related to teacherpreneurship development. This synthesis provided the basis for formulating strategic recommendations for integrating organizational participation, character development, digital competence, and entrepreneurial learning within vocational teacher education under the Merdeka Belajar framework.

Ethical principles were maintained throughout the study. Participation was voluntary, informed consent was obtained before data collection, and participants were informed of their right to withdraw without consequence. Personal identifiers were removed from the dataset, and research data were stored securely to maintain confidentiality. The study also applied methodological triangulation and transparent documentation of quantitative–qualitative integration to strengthen the credibility and interpretability of the findings.

RESULTS AND DISCUSSION

Results

This research explored the impact of structured discussions and reflections on teacherpreneurship, as integrated into microteaching, school field experiences, and student organization activities, and how these elements influenced the actions, responsibilities, and observable changes in the entrepreneurial readiness of prospective vocational teachers. Throughout the academic year, 120 students participated in a variety of curricular and extracurricular sessions to identify their entrepreneurial aspirations, recognize areas for character development, and formulate

actionable plans. A total of 342 organized events, including workshops, organizational meetings, and project-planning sessions, were attended. Notably, in 238 of these events (70%), participants explicitly identified teacherpreneurship as a key agenda item.

Relationship among Organizational Participation, Character Mediation, and Teacherpreneurial Readiness

The participants were students in their final and second-to-final years, representing various vocational streams. At the outset, most students were aged 20-24 years, and there was balanced gender representation. Prior exposure to entrepreneurship education among participants varied: 34% reported taking relevant coursework, 21% reported informal business experience, and 45% reported no prior exposure to entrepreneurship. The self-reported baseline measurements indicated a moderate level of readiness for teacherpreneurship, with a mean index of 3.2 on a 5-point scale. The strongest scores were observed in areas such as creativity and classroom resource production, while market awareness and risk-taking received comparatively lower scores.

Thematic Insights on Identity Transformation and Institutional Tensions

Attendance records and event logs revealed the extent to which students incorporated teacherpreneurship topics into organizational meetings and practicum debriefs. Among the 120 participants, 86 students (72%) raised teacherpreneurship issues at least once. In addition, forty-four students (37%) engaged in sustained action across three or more sessions, while eighteen students (approximately 15%) participated only once. The data presented reflect both initial interest and diverse levels of commitment among potential vocational teachers, providing a quantitative overview of how the teacherpreneurial agenda emerged within everyday learning and organizational settings. The combination of occasional contributors and a dedicated group of regular participants indicates a vibrant participation landscape, in which both exposure and opportunity play significant roles in fostering ongoing involvement.

The level of engagement became significantly more pronounced following the initial series of sessions. The percentage of students participating in discussions about entrepreneurial projects increased from 54% in the earliest meetings to 76% by the middle of the semester, after which it stabilized. This trend suggests an increasing comfort with and acceptance of the teacherpreneur identity over time. The observed upward trend suggests that providing repeated and structured opportunities within organizational contexts fosters the normalization of entrepreneurial thinking as an integral aspect of professional development for educators. Furthermore, it indicates that supportive organizational frameworks have likely been instrumental in motivating students to perceive teaching as a field for creative and market-oriented practice. The stabilization of engagement following the mid-semester period indicates that, once students recognized the value of these activities, a significant number chose to maintain their involvement rather than return to their original levels of participation.

In 238 teacherpreneurship events, participants and mentors collaboratively developed 412 distinct action items to enhance entrepreneurial practices in education. Responsibility for these actions was shared among students, mentors, and other institutional stakeholders. The majority of the actions – 322 items, representing 78 % – were designated for students. These tasks encompassed the creation of mini entrepreneurial lesson packages, the piloting of paid micro-courses, the design of social media learning campaigns, and the preparation of budgeted classroom enterprises. Mentors and organizational leaders were responsible for 45 actions (11%), including providing design guidance, facilitating connections with community partners, and offering incubation time. Institutional or third-party supports accounted for the remaining forty-five actions (11%), which involved securing small grants, providing workspace, or enabling access to platforms. This pattern underscores a robust student-centered approach to teacherpreneurial endeavors, which is effectively supported by focused mentorship and limited institutional resources.

An Analysis of Content regarding Various Types of Actions

The project resulted in the establishment of ten distinct categories: the development of prototype lessons, market validation through pilot testing with learners, branding and digital

promotion strategies, budgeting and resource mobilization efforts, collaboration agreements, delegation of roles, monitoring of milestones, reflective documentation practices, pursuit of formal mentorship, and referrals to institutional funding sources. Examples included pledges to “initiate a one-week vocational microlesson on the student portal” and “conduct a paid weekend workshop in collaboration with industry partners.”

Quantitative Outcomes: Alterations and Determinants

Measurements taken before and after the semester indicated modest yet significant changes. The mean of the teacherpreneurship index rose from 3.2 to 3.7 on a 5-point scale. The subscales that demonstrated the most significant improvements were leadership (+0.6) and applied pedagogy for entrepreneurship (+0.5). In contrast, the gains in market strategy competence were more modest, registering a change of +0.3.

Statistical modeling revealed that the frequency of organizational participation was positively associated with the post-semester teacherpreneurship score (standardized $\beta = 0.42$, $p < 0.001$). This relationship accounted for roughly 28% of the variance, even after controlling for prior exposure, vocational stream, and demographic factors. Character development indices, including initiative, resilience, and collaborative orientation, mediated this effect. When these character scores were included as mediators, the direct effect of participation diminished, indicating partial mediation. This suggests that participation not only contributes to character development but also enhances entrepreneurial readiness.

Thematic Insights and Qualitative Inquiry

The qualitative inquiry demonstrated that student leadership roles within organizations frequently serve as effective environments for developing entrepreneurial skills. In these settings, everyday responsibilities become valuable opportunities to practice budgeting, negotiation, and project pitching in tangible ways. Numerous students reported a gradual transformation in their identities, shifting from roles within administrative clubs to adopting a more entrepreneurial approach to teaching. This evolution inspired them to develop marketable classroom resources and to explore small-scale educational services.

This shift in identity, however, was marked by ongoing tension between academic responsibilities and organizational commitments. Students often noted that peaks in workload and rigid practicum schedules interfered with the continuity of their entrepreneurial projects. Despite high levels of enthusiasm, the episodic structure of university assessments and practicum placements hindered students' capacity to maintain momentum, resulting in the stalling of several initiatives prior to their pilot implementation. A recurring theme highlighted the disparity between everyday digital fluency and professional digital entrepreneurship. While students demonstrated comfort with communication and collaboration tools, they often felt uncertain about how to convert those skills into monetizable products, effective user experiences, or legally compliant distribution strategies. The ambiguity surrounding platform monetization, intellectual property, and e-learning design frequently hinders students from maximizing the potential of digital channels for their entrepreneurial teaching initiatives.

The institutional context proved crucial in determining whether student ideas were translated into tangible actions. Modest supports, such as microgrants, mentorship hours, and collaborative workspaces, were identified as significant catalysts for advancement. On the other hand, participants identified bureaucratic obstacles and unclear institutional policies regarding commercialization as significant sources of friction that hindered ongoing effort and risk-taking. This was particularly true when students felt uncertain about how their projects aligned with the Merdeka Belajar ethos. When qualitative narratives were compared with quantitative results, a clearer causal logic emerged: frequent organizational participation was associated with higher scores on teacherpreneurial readiness. Additionally, interviews revealed that repeated leadership experiences fostered dispositional qualities – such as initiative, resilience, and collaborative problem-solving – that facilitate entrepreneurial action. Through this process, participation catalyzed character development, thereby facilitating the transformation of engagement into tangible entrepreneurial outcomes.

While there was general consistency between the survey and interview findings, a significant discrepancy emerged in the assessment of digital competence. The quantitative data indicated a moderate level of readiness, whereas the qualitative responses highlighted a hesitance to utilize digital skills in a professional context. This discrepancy underscores the limitations inherent in self-reported measures of competence and underscores the importance of qualitative methods in uncovering practical obstacles, including uncertainties regarding monetization models and concerns related to intellectual property management.

The integration of strengths and limitations indicates a thoughtful approach to curriculum development that harnesses students' inherent creativity and the organization's practices, while addressing essential deficiencies in commercialization literacy and equitable resource distribution. A significant number of students are already creating original learning materials and showcasing their leadership abilities. Institutional leaders can harness these strengths by establishing formal project pathways and ensuring equitable access to mentorship and material resources across vocational streams. Simultaneously, it is essential to recognize ongoing weaknesses, particularly disparities in market literacy and time-management challenges, which jeopardize project sustainability. In the absence of focused efforts to impart knowledge in market research, pricing strategies, and effective time management, the passionate initiatives undertaken by students may, unfortunately, remain temporary projects rather than develop into enduring educational ventures.

The potential for expanding teacherpreneurship is rooted in the adaptability of the Merdeka Belajar framework, the availability of affordable digital platforms, and the possibility of forming industry partnerships that can validate and provide market access for student-created products. Strategically aligning with these external resources would enable institutions to connect classroom innovation with real-world application, fostering mutual benefits for both students and community partners.

Nonetheless, ongoing threats could hinder progress. These include a competitive graduate landscape that compels students to focus on accumulating credentials rather than engaging in entrepreneurial experimentation, as well as regulatory uncertainties surrounding student commercialization that may lead institutions to hesitate in supporting monetized student initiatives. In the absence of clear policy guidance and protective measures, both students and educational institutions might be reluctant to fully engage with teacherpreneurial initiatives. To synthesize the internal and external factors identified from the quantitative and qualitative findings, a SWOT analysis was conducted. The analysis classified the factors into strengths, weaknesses, opportunities, and threats and assigned weights and ratings according to their relative strategic importance. The resulting weighted scores are presented in Tables 1–4.

Table 1. The Strengths of Teacherpreneur Education Students

No.	Strength Indicators	Quality	Rating	Value
1	Organizational activeness	0.2	4	0.8
2	Self-confidence	0.2	3	0.6
3	Task and outcome orientation	0,2	3	0.6
4	Leadership	0.2	3	0.6
5	Creativity	0,2	3	0.6
Total		1.0		3.2

Table 2. The Weaknesses of Teacherpreneur Education Students

No.	Weakness Indicators	Quality	Rating	Value
1	Risk-taking Courage/Bravery	0.2	1	0.2
2	Future Orientation	0.2	1	0.2
3	Foreign Language Proficiency (English)	0.4	3	1.2
4	Time Management	0.2	2	0.4
Total		1.0		2.0

Table 3. Opportunities for Teacherpreneur Education Students

No.	Opportunity Indicators	Quality	Rating	Value
1	Technological Development	0.4	4	1.6
2	<i>Merdeka</i> Curriculum Policy	0.3	3	0.9
3	Grant Fund/CSR	0,3	3	0.9
Total		1.0		3.4

Table 4. Challenges for Teacherpreneur Education Students

No.	Challenge Indicators	Quality	Rating	Value
1	Job Competition	0.4	2	0.6
2	Competitive Demands	0.4	1	0.4
3	Development of Robotic Technology	0,2	1	0.2
Total		1.0		1.2

The SWOT analysis yielded a total weighted score of 3.20 for strengths and 2.00 for weaknesses, resulting in a positive internal position of 1.20. Similarly, opportunities obtained a total weighted score of 3.40, whereas threats accounted for 1.20, producing a positive external position of 2.20. These results place teacherpreneurship development at the coordinate (1.20, 2.20), corresponding to Quadrant I of the SWOT matrix. This position indicates that the development of teacherpreneurship is supported by relatively strong internal capacities and favorable external opportunities. Accordingly, a growth-oriented strategy is appropriate, emphasizing the use of students' organizational engagement, self-confidence, leadership, and creativity to capitalize on technological development, the flexibility offered by the *Merdeka* Curriculum, and potential external funding opportunities.

The study's findings suggest that continuity and mentorship are crucial in facilitating the transition from concept to pilot. Students who participated in multiple sessions and benefited from continuous mentor support demonstrated a markedly higher likelihood of initiating workshops or paid microcourses by the semester's conclusion. This indicates that ongoing support is essential to facilitate behavior change and prototype development.

The mixed-methods approach used in this study, which integrates participation logs, action inventories, and in-depth narratives, provided a robust framework for understanding both the extent of effects and the mechanisms at play. However, it is important to note that the study's focus on a single institution and its relatively brief observation period limit the ability to make definitive claims regarding long-term sustainability. The reliance on self-reports for specific measures introduces the potential for social desirability bias, underscoring the need for objective outcome metrics in future studies. To put these findings into practice, institutions should incorporate credit-bearing, project-based modules that recognize organizational work as a valid form of academic activity. Additionally, they should offer specialized digital entrepreneurship training that emphasizes monetization and intellectual property, and provide microgrants and structured mentorship to facilitate the execution of pilot projects. Coordinating assessment timelines with practicum schedules will help minimize role conflict and maintain student engagement throughout the required periods.

In short, participation within organizations serves as a significant catalyst for the development of character that supports teacherpreneurial capacity. However, the transition from practice to sustainable innovation necessitates intentional institutional support. Through curricular realignment, consistent mentorship, and appropriate resource allocation, vocational teacher education can transform sporadic entrepreneurial experiences into enduring, practice-based teaching initiatives aligned with the *Merdeka Belajar* vision.

Discussion

The findings demonstrate that active participation in student organizations substantially improves the entrepreneurial character of prospective vocational teachers. This supports [Kholifah et al. \(2024\)](#), who argue that student organizations are crucial for developing leadership and

responsibility in teacher education. Importantly, this study provides a nuanced theoretical advancement by demonstrating that the effect of organizational participation on teacherpreneurship is partially mediated by character development. This suggests that participation is not a direct input but an intervening mechanism that cultivates essential dispositional qualities, such as initiative and resilience, which subsequently enable complex entrepreneurial actions, underscoring the importance of experiential learning environments.

Previous studies on vocational teacher education have often emphasized curriculum innovation and professional development (Allais & Schöer, 2025). Yet, the present findings highlight that beyond curricular reforms, extracurricular organizational involvement also plays a pivotal role in shaping entrepreneurial identity. This demonstrates that teacher education institutions (LPTK) must consider organizational ecosystems as complementary arenas for character and entrepreneurial development. The strong correlations and regression results in this study reinforce the conclusion that experiential learning opportunities, such as leading student organizations, provide measurable benefits for entrepreneurial competence. This resonates with Nurdyansyah et al. (2022), who emphasized the importance of character education through the Pancasila Student Profile. While their focus was on values, our study shows that these values translate into tangible entrepreneurial outcomes when students actively engage in organizational participation.

Interestingly, while the quantitative data initially suggested a moderate level of digital readiness, the qualitative findings exposed a significant ambivalence toward professional digital entrepreneurship. This divergence highlights that students possess digital literacy (general use) but lack Digital Entrepreneurial Competence (i.e., knowledge of monetization models, intellectual property, and compliant distribution strategies). This finding aligns with the need for formal approaches highlighted by the OECD (2023) but pinpoints the specific skill gap that LPTK must address: shifting digital fluency from a technical skill to an entrepreneurial resource. This study contributes by showing that digital competence is not just a technical skill but an entrepreneurial resource, enabling teachers to design, promote, and distribute educational content in innovative ways.

The thematic analysis also revealed challenges related to time management and to balancing academic and organizational responsibilities. This echoes findings by Rönnlund (2014), who noted that flexible learning policies, such as Merdeka Belajar, create both opportunities and pressures for students. Our study contributes by showing that, when managed effectively through organizational participation, these pressures can transform into entrepreneurial resilience and adaptive capacity. The SWOT analysis highlights that opportunities from digital technology, flexible curricula, and government funding outweigh threats such as automation and competition. This is consistent with the argument of Zhong and Juwaheer (2024), who promoted a whole-institution approach to digital competence in vocational education and training (VET). By strategically positioning strengths and opportunities, our study demonstrates that teacherpreneurship can thrive despite systemic challenges.

Furthermore, the regression model showing that organizational participation accounts for 32% of the variance in entrepreneurial competence provides empirical support for the theoretical assumption that teacherpreneurship is multidimensional. This complements the work of Setuju et al. (2024), who argued that creativity and motivation are strengthened when students combine digital and entrepreneurial skills. Our results empirically validate this link in the context of Indonesian vocational teacher education. From a policy perspective, the findings align with the goals of Merdeka Belajar to foster critical, independent, and entrepreneurial learners (Lv et al., 2022; Zuurmond et al., 2018). However, our study contributes a nuanced perspective: policy reforms must be accompanied by structural support for student organizations and digital entrepreneurship initiatives. This integration ensures that the intended outcomes of Merdeka Belajar materialize in practice.

In sum, this study contributes to the literature by demonstrating that teacherpreneurship development cannot rely solely on pedagogy or curriculum innovation. It requires a synergistic integration of character development, organizational participation, and digital competence within the Merdeka Belajar framework. Compared with previous studies that treated these components separately, this research presents a comprehensive model that is both theoretically grounded and practically relevant to LPTK and vocational teacher preparation globally.

CONCLUSION

This study concludes that the integration of organizational participation, entrepreneurial character development, and digital competence is essential in preparing prospective vocational teachers to become teacherpreneurs within the Merdeka Belajar framework. The findings extend the discourse on vocational teacher education by positioning teacherpreneurship as a multidimensional construct that combines character development, digital literacy, and organizational engagement. Unlike earlier studies that addressed these aspects separately, this research offers a comprehensive model supported by both quantitative and qualitative evidence. For teacher education institutions (LPTK), the results provide strategic directions to embed entrepreneurial learning through student organizations, project-based activities, and digital entrepreneurship practices. The integration of these experiences equips students with leadership, creativity, and adaptability—competencies that are critical in the global and digital education landscape. From a policy perspective, the study aligns with the objectives of Merdeka Belajar and Kampus Merdeka (MBKM) by demonstrating how institutional support for organizational activities and digital competence can translate into entrepreneurial readiness. The findings highlight the need for government and higher education policymakers to strengthen ecosystems that combine curricular flexibility with extracurricular and digital entrepreneurship opportunities. Overall, the study emphasizes that teacherpreneurship development requires not only curriculum innovation but also supportive institutional environments that foster leadership, digital competence, and entrepreneurial values among future educators..

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