WHIOCE PUBLISHING PTE. LTD.
PROVIDING
FIRST-CLASS SCIENTIFIC INFORMATION
FOR TOP SCHOLARS

2026 Volume 4, Issue 4
Contemporary Education Frontiers
ISSN:3029-1879 (Online)
ISSN: 3029-1860 (Print)

Research on the Reform of Scenario-Based Teaching in Ideological and Political Courses at Higher Vocational Institutions, Based on the Integration of Educational Technology and Talent Development

Wenli Sun*
Shenzhen Polytechnic University, Shenzhen 518055, Guangdong, China

Author to whom correspondence should be addressed.

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: High-quality development in vocational education depends on aligning education, technology and talent cultivation. This alignment offers a practical response to persistent problems in higher vocational institutions. These include the declining perceived value of ideological and political courses, highly uniform teaching settings, and educational processes that remain fragmented and discontinuous. Under this background, this paper clarifies the core meaning of scenario-based reform in ideological and political education. It then examines the barriers to implementation at the institutional, stakeholder and resource levels. On this basis, it proposes practical pathways across three connected dimensions: value redefinition, stakeholder restructuring and resource integration. Together, these measures aim to move ideological and political courses beyond isolated scenario simulations towards immersive educational models. In these models, character formation, technological support and talent cultivation are more closely integrated. Such an approach may help reduce the longstanding divide between moral education and technical skills training in higher vocational education.

Keywords: Integration of educational technology and talent development; Ideological and political education courses in higher vocational education; Context-based teaching; Collaborative education

Online publication: April 26, 2026

1. Introduction

Education, science and technology, and talent form interconnected strategic pillars in building a modern socialist country. Within this framework, vocational education is most closely linked to the real economy. It therefore carries a dual responsibility: to cultivate both the ideological qualities and the professional ethics of technical and skilled personnel [1]. This study moves beyond a narrowly instrumental view of technology. From a systemic and collaborative perspective, it develops a logical framework for reforming situational teaching. It also examines the practical challenges of aligning the fundamental educational mission of fostering virtue with the training of technical and skilled talent in higher vocational education.

2. The significant importance of reforming situational teaching methods in ideological and political courses at higher vocational institutions under the integration of educational technology talent development

Education remains the main route through which talent is developed. Science and technology, in turn, improve educational quality. Human resources provide the essential foundation for both technological innovation and the practical translation of educational outcomes [2]. Within this broader framework, ideological and political context-based teaching should extend beyond classroom optimization alone. It should embed value guidance throughout technical training and professional development, thereby addressing the structural limitations that have long constrained conventional contextual teaching approaches.

2.1. Address the logical shortcomings in vocational education that separate moral cultivation from technical training, and restore ideological and political education to its fundamental purpose

The integrated development philosophy that links education, technology and talent cultivation has reshaped vocational education by bringing moral formation and technical training into a single framework. Across the full educational process, this approach requires two tasks to proceed together: clear value guidance and the strengthening of technical competence. It also aims to improve students' broader capacities and judgment. From the perspective of ideological and political education, the central task remains human socialization. Technical professionals are not merely units of labor [3]. They are independent actors with cognition, agency, and moral judgment. Earlier forms of scenario-based teaching relied largely on static formats, including themed performances and workplace case analysis. These approaches showed clear limits when digital technologies introduced new value conflicts. Recent examples include algorithmic discrimination in AI systems and breaches of industrial data security. Within this integrated framework, scenario-based teaching can embed technological ethics, regulatory norms and social responsibility into vocational settings [4]. This design helps reduce the temporal, spatial and substantive split between moral education and skills training. It also helps correct the utilitarian drift in higher vocational ideological education, where teaching is sometimes reduced to an instrument for skill assessment alone. In this sense, the reform restores the core purpose of scenario-based teaching: to cultivate virtue through education. Educational goals and holistic talent development can thus become more coherent, while the ideological foundations of vocational education may be strengthened.

2.2. Mitigating the risks of alienation in digital technology education and refining the ethical boundaries of ideological and political education within contextualized learning environments

At the level of system design, the integrated mechanism connecting education, technology, and talent development sets clear boundaries for technological application. Crucially, it positioned technology as a supporting tool for education and talent cultivation, rather than a force that governs teaching [5]. In theoretical terms, technological alienation originates in a misalignment of responsibilities across these three domains; once technology begins operating apart from pre-established educational objectives, perceptions of talent value are, almost inevitably, skewed. For context-based teaching reform built on this integrated framework, the operative requirement is correspondingly specific: all contextual technologies must treat the enhancement of vocational students' professional ethics literacy as the central evaluative standard, with a comprehensive content-value review system established alongside it. Under the coordinated operation of such a mechanism, educators' ability to appraise the ethical implications of technology can be reinforced, thereby reducing passive accommodation to digital technologies. The result, in turn, is the cultivation of a self-reinforcing educational ecology in which "education guides technology, and technology serves talent development," thus addressing at its root the ethical risks latent in digitalized ideological and political education.

2.3. Meet the structural demands for industrial talent and extend the long-term framework of ideological and political education

By integrating educational provision, technological development and talent cultivation within a single reform pathway, the longstanding divide between campus instruction, industrial upgrading and enterprise employment can be narrowed, if not fully resolved. In this framework, ideological and political education extended beyond the conventional classroom into university–local collaborative platforms and school–enterprise partnerships [6]. From the perspective of talent supply and demand, the industry has faced acute staff attrition and repeated professional misconduct. This pattern may reflect the failure of ideological education to keep pace with technological change or to incorporate the shifting realities of digital transformation into scenario-based teaching. These realities included reconfigured workplace collaboration and changing labor-rights arrangements. Integrated reform enabled advanced industrial technologies to refresh educational resources iteratively, while scenario design incorporated emerging themes such as labor equality and skill-based contribution across industrial chains [7]. Crucially, these reforms carried ideological and political education beyond formal schooling into internships and continuing education. This broader approach helped build a more comprehensive training system. It supported contextual immersion during study, strengthened recognition of professional value in workplace settings, and promoted lifelong competence development. In doing so, it responded more directly to structural mismatches in the ideological literacy of regional industrial talent.

3. Practical barriers to the reform of context-based teaching in ideological and political courses at higher vocational institutions under the integration of educational technology talent development

The present reform is constrained by fragmented component parts, by an uneven distribution of capacity among teaching stakeholders, and by deeply entrenched barriers separating different resources; taken together, these three interlocking constraints stand as the principal internal impediments to its further progression, and they directly obstruct gains in educational outcomes.

3.1. Fragmented top-level understanding: Misalignment in the perception of factor integration, and absence of a systematic educational philosophy

Within vocational higher education, managers and ideological-political education teams frequently operate under a markedly linear cognitive bias, treating the participation of educational technology professionals as little more than a mechanical splicing of ideological-political courses onto digital devices, rather than apprehending the internally coupled, mutually conditioning relationship between the two, precisely the kind of foundational cognitive impediment that stalls reform at the implementation stage [8]. At the institutional tier, matters are not structurally aligned either: vocational talent-development planning, the standard-setting of ideological-political courses, and campus digitalization initiatives remain separately administered by the Academic Affairs Office, the School of Marxism, and the Information Center, respectively, each unit running on its own evaluation regime and, notably, without purpose-built indicators for collaborative integration. In day-to-day teaching practice, a similar division of understanding persists. Constrained by disciplinary boundaries, most ideological-political educators assume that technological integration should be left to IT instructors, whereas talent supply-demand analysis belongs to career-guidance departments; their own responsibility, in this narrowed view, is confined to the delivery of theoretical content. Added to this, the repeated invocation of near-identical research frameworks has produced strikingly homogeneous pedagogical routines among teachers, which in turn hardens rather than softens fragmented patterns of cognition. The practical consequence appears in contextualized instructional design, where substantial bias becomes visible: some designs privilege technological immersion so heavily that core value-oriented goals are pushed to the margins, while others, holding rigidly to conventional humanities-centered teaching models, exclude digital technology applications altogether. Neither tendency, stated plainly, secures the organic coordination or the dynamic integration

required among education, technology, and talent development.

3.2. Structural deficiencies in faculty competence: Insufficient integrated competency among dual-qualified ideological and political education instructors

Across vocational colleges, the current corps of ideological and political education faculty shows clear structural shortfalls in three core competencies. As regards theoretical analytical capacity, most instructors completed degrees in Marxist theory and adjacent specialties, yet foundational literacy in vocational education and industrial technology remains thin; as a result, their ability to grapple with emergent value conflicts generated by the growth of digital industries, or to construct context-specific pedagogical scenarios responsive to concrete workplace problems, is constrained, teaching therefore still leaning predominantly on generic blue-themed narratives [9]. This imbalance is not trivial. On the question of digital technological proficiency, the training programs presently in place concentrate mainly on basic equipment operation, leaving absent higher-order components—algorithm-integrated contextual instruction, AI-guided ethical adaptation of scenarios, and virtual-simulation-based narrative design among them. What most teachers can manage, in practice, are elementary functions such as video playback and online voting; independently designing personalized, immersive educational environments remains beyond reach (a gap that, in this setting, sharply limits scenario-based innovation). Bare technical familiarity, in other words, has not translated into pedagogy-capable digital fluency. As for awareness of industry talent demand, participation by educators in university-industry collaboration schemes and technology research initiatives is rare, which in turn produces a 3–5-year delay in their understanding of the changing requirements of regional industrial chains. From that lag follows a direct consequence: updates to contextual teaching content fall markedly behind actual industrial developments. Rarely, under these conditions, can instructional content keep pace with fast-moving sectoral change.

3.3. Solidification of resource field barriers: The two-way integration mechanism for contextual resources between the campus and external environments has failed

For the integrated advancement of education, technology, and talent, what is required is a genuinely bidirectional circulation between, on the one hand, ideological and political education resources within institutions and, on the other, external industrial technology resources and practice-based talent resources. Yet within vocational colleges, resource barriers have already taken on a markedly rigid institutional form. At the institutional level, situational resources used in ideological education remain segmented from the technologies embedded in professional training; in specialized departments, industrial virtual simulation platforms and digital production training systems are used only for professional skills instruction and are not opened to ideological and political courses, thereby producing discrete data silos in which teaching data, student competency indicators, and training records remain mutually disconnected. The consequence is direct: the precise tailoring of individualized learning scenarios is impeded [10]. Outside the institution, industry-academia collaboration is constrained by a one-directional pattern of resource supply. Enterprises, as a rule, provide only textual materials such as job-related case studies, while withholding core technological resources, including internal digital production environments and industrial-chain collaboration platforms, because of concerns about data leakage and escalating operating costs. Beyond that, public blue-themed innovation resources under the administration of local human resources authorities and science and innovation departments remain unavailable to vocational ideological and political education programs, with the result that regional innovation achievements and exemplary practice cases associated with master craftsmen cannot be converted into effective instructional resources.

4. Practical strategies for reforming situational teaching in ideological and political courses at higher vocational institutions under the integration of educational technology talent development

To move past these obstacles, a staged course of action can be pursued, one that combines cognitive restructuring, subject empowerment, and the removal of resource barriers. Within the framework of systemic synergy theory, reform pathways tailored to three interlocking dimensions, institutional design, faculty development, and resource allocation, should be formulated.

4.1. Revising the institutional framework for top-level collaborative governance and establishing an integrated, embedded governance system

To address fragmented cognitive challenges, vocational colleges must disassemble entrenched departmental silos and constitute cross-functional specialist teams dedicated to scenario-based ideological education, with synchronized planning across educational objectives, technological infrastructure, and talent-demand calibration. As a first step, the curriculum framework requires revision so that integrated approaches linking education, technology, and talent cultivation are written directly into ideological education standards; scenario-based teaching, under such a framework, should encompass value reflection, technological literacy, and professional competence simultaneously, rather than remain bound to narrow, one-dimensional ideological assessment indicators.

With institutional coordination brought into clearer focus, departmental responsibilities must then be specified rather than left diffuse. The School of Marxism, the Information Center, the Industry-Academia Cooperation Office, and the Human Resources Department should collaborate in a clearly delimited fashion: technical support for scenario-based teaching is to be provided by the Information Center, whereas real-time industry expectations concerning ethical competencies should be gathered by the Industry-Academia Cooperation Office. Through monthly content reviews conducted jointly by all relevant parties (a procedural detail that matters more than it may initially appear), alignment can be maintained between technological application and educational aims.

At the level of pedagogical design, institutions should formulate localized strategies tailored to the actual demographic profile of their students, thereby reducing the tendency toward homogenized reform pathways. Equally, evaluation systems ought to place greater weight on the integration of teaching elements and on talent-development outcomes, rather than privileging merely surface-level interaction metrics. Through this kind of systemic restructuring, the initiative is intended to move beyond linear, instrumentalist modes of thought and, in their place, cultivate an institution-wide educational philosophy marked by internal coherence.

4.2. Establish a tiered and integrated teacher training system to address the shortcomings in comprehensive scenario-based teaching competencies

To remedy the competency shortfalls identified among teachers of ideological and political education, a training system has been put in place that is tiered, differentiated, and jointly structured through industry-academia collaboration. Relative to conventional, broadly framed digital training programs, its central purpose lies in strengthening teachers' specialized capacities for scenario-based instruction. At the first tier, attention is directed to foundational theoretical literacy and academic capacity-building, with targeted workshops on technological ethics—co-organized with local academies of social sciences, used to close knowledge gaps surrounding digital industries and the internal logic of innovation. In practice, this equips teachers to command narrative strategies for engaging frontier issues such as technological alienation and algorithmic fairness within ideological education, while also fostering the capacity to construct scenarios organized around critical conflict independently.

At the second tier, the emphasis shifts toward higher-order skills in the application of digital technologies, mainly through two dedicated programs: the original adaptation of ideological scenarios and the reconstruction of virtual-

simulation narratives. By the third tier, an industry-academia rotation mechanism is formalized, with teachers required to spend no fewer than two months each year in corporate digital workshops or research-and-development units so that real-world cases—technological progress, but also the value conflicts surrounding talent—can be gathered directly and folded back into teaching materials on a continuing basis. Alongside these arrangements, supporting incentive measures have also been introduced. Specifically, outcomes from integrated scenario-course development and experience gained through industry rotation are treated as bonus considerations in professional title evaluation, a design intended to raise teachers' willingness to participate and remain engaged.

Across the system as a whole, an interdisciplinary team—bringing together ideological educators, information technology specialists, and corporate innovation mentors—works collectively on needs assessment, scenario construction, and technical implementation. In this way, the shortcomings that tend to accompany single-actor approaches are effectively mitigated.

4.3. Break down barriers between on-campus and off-campus resource domains, and establish a dynamic, cyclical paradigm for integrating scenario-based resources

The implementation of collaboration policies linking universities with local innovation ecosystems should, at the outset, focus on removing campus-level data silos and opening managed access routes to external resources, thereby setting in motion a dynamic circulation system of resources marked by "campus sharing – enterprise connectivity – regional coordination." Within universities themselves, data should be integrated across specialized digital training platforms and ideological education platforms, with clearly delimited conditions of use established for non-confidential training scenarios in educational settings. In practical terms, safety protocols, team-based coordination processes, and cases involving technical breakthroughs drawn from digital training programs can be translated into authentic ideological education scenarios, allowing the same technological resources to serve a dual purpose: strengthening applied competencies while, at the same time, fostering value formation.

In the context of industry-university cooperation, data anonymization agreements should be executed first. Thereafter, local government data platforms should anonymize corporate innovation scenarios and, under stringent data security requirements, open selected real-world business settings, industrial chain collaboration and digital risk management among them, for conversion into immersive ideological education environments adapted to particular roles. At the regional scale, through collaboration with local science associations and blue education bases, innovative practices associated with master craftsmen and development cases from specialized enterprises can be compiled to build a shared repository of ideological education resources. Updated each quarter to keep pace with technological change, this repository should remain aligned with current practice. It should also include a mechanism that detects duplicated content, so redundant materials are removed rather than repeatedly accumulated. Together, these measures would create a closed-loop system: educational resources would track technological change, while demand for talent would drive continued revision. This may help reduce the persistent mismatch between ideological education settings and concrete social needs.

Disclosure statement

The author declares no conflict of interest.

References

[1] Li P, 2019, Design and Application of a Scenario-Based Experiential Teaching Model for Ideological and Political Courses in Higher Vocational Colleges. Reform and Opening-up, (13): 109–111.

[2] Zhang S, 2018, Analysis of the Effectiveness of Situational Drama Teaching Methods in Ideological and Political Education Courses at Higher Vocational Colleges. Tomorrow Trends, (22): 169–171.

[3] Shang H, Cai K, 2018, Analysis of Implementation Approaches and Teacher Roles in Situational Teaching Methods for Ideological and Political Courses in Higher Vocational Education. Journal of Hubei Correspondence University, (04): 51–52.

[4] Ma X, 2017, Application Research of Situational Drama Teaching Method in Ideological and Political Education Courses at Higher Vocational Institutions. Journal of Liaoning Higher Vocational Education, (02): 43–45.

[5] Zhang Q, 2020, A Brief Analysis of the Application of Situational Teaching Method in Ideological and Political Education Courses at Higher Vocational Colleges. Science Consulting (Science & Technology Management), (49): 125.

[6] Xiang Y, 2024, Analysis of the Teaching Ecosystem and Construction of Logical Framework for "Situational Painting" Methods in Ideological and Political Education Courses at Higher Vocational Colleges. University, (24): 62–67.

[7] Li Q, 2024, Application of the "Ideological Education + Professional Training" Scenario-Based Drama Teaching Method in Practical Instruction of Ideological Education Courses at Higher Vocational Colleges. Science, Education and Culture Digest, (10): 44–47.

[8] Tian Y, 2024, Application and Innovation of Situational Teaching in Ideological and Political Courses at Higher Vocational Colleges. Huazhang, (12): 120–122.

[9] Zhu Q, 2025, Application of the "Ideological Education + Professional Training" Scenario-Based Drama Teaching Method in Ideological and Political Education Courses at Higher Vocational Institutions. Century Bridge, (01): 65–67.

[10] Zhang G, 2021, Application of Situational Teaching Method in Ideological and Political Education Courses at Higher Vocational Colleges. China Journal of Multimedia and Network Teaching (Mid-month Issue), (03): 128–130.

Publisher's note

Whioce Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.