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AI Scenario Simulation Empowers Teaching Competency Transformation for Higher Vocational Teachers: A Case Study of the Modern Secretarial Program

Ying Lu

College of Humanities, Ningbo Childhood Education College, Ningbo, China
2020019@nbei.net

Abstract. With the increased industry-education integration, the higher vocational colleges are establishing dual-teacher projects with enterprises to improve students' ability. The project-based in Modern Secretarial major in School A. Data came from course instructors, enterprise mentors, and students; classroom observations and teaching records were coded using thematic analysis. The question is what the challenges and opportunities are if a supervisory system matching enterprise mentors with course instructors operates within a teaching environment based on AI and how teachers redefine their functions and reestablish professional competency. The results indicate that AI scenario simulation, with its ability to provide instantaneous feedback and differentiated tasks, alleviates the strain of differentiated instruction in large classes. This liberates the teachers to diagnose learning needs and lead groups at various levels. It is true as long as teachers determine the limit of AI engagement: what the system can manage. These options require learning checks as well; otherwise, the achievement gap amongst students is likely to increase. The research provides a viable source for vocational colleges to undertake the same reforms in practicum teaching and teacher development.

Keywords: AI scenario simulation, higher vocational teachers, transformation of teaching ability, modern secretarial major

1. Introduction

Artificial intelligence is advancing fast, and the digital transformation of education has gone far beyond infrastructure. Higher vocational education now faces change across instructional forms, the organization of teaching, and talent cultivation. National policy points the same way. The Outline of the Plan for Building a Strong Education Nation (2024–2035) sits under the "AI + Education" initiative. It calls for AI to strengthen the teaching workforce and advance educational reform. The "New Double High" plan sets requirements too. Vocational faculty should adopt AI, use new technologies to address teaching difficulties, and redesign how talent is cultivated.

Industry-education integration has deepened. Course content must now align closely with industry standards and with the competence needs of specific posts. The old instruction rests on the teacher as the only authority, and knowledge flows one way. This model no longer meets industry's

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demand for versatile technical and skilled talent. Artificial intelligence is pushing instructional methods toward data-driven models. Vocational teachers must upgrade their own knowledge base and pedagogical capacity before they can cultivate versatile talent in students. How teachers change what they do in class decides the quality and effectiveness of the talent a program produces.

2. Literature review

2.1. Teacher role transformation

Research on the AI literacy of vocational college teachers has made headway. But it remains largely descriptive at the macro level, and theory in this area lags behind practice. Much of the literature looks at how AI affects student learning outcomes. How teachers' roles change once AI enters instruction has drawn little systematic evidence from real classrooms. One line of argument holds that vocational teachers move, by necessity, from the traditional "craftsman" toward the "learning designer" [1]. The shift redirects work from content delivery to experience design. It also reorients thinking from intuition to evidence, and lifts the goal from knowledge coverage to competence growth. Industry-education integration gives the shift a particular meaning. Teachers must step out of a single professional position and take on several roles at once. These are learning designer, learning analyst, and industry-education collaborator. AI-driven gamified instruction pushes this process through four joint mechanisms: cognitive restructuring, technological empowerment, pedagogical innovation, and industry-education integration [2]. A three-tier model describes competence development [3]. It runs from basic occupational competence at the base, through wider professional reach, to leading change at the top. Teacher competence should grow from one instructional skill into three abilities working together: digital literacy, industry capability, and pedagogical capability. These frameworks have sketched the directions and dimensions of transformation. Yet they still need deepening and verification within particular disciplinary settings.

Studies of AI scenario simulation in practicum teaching enter mostly through technological function and learning experience, arguing for the immersiveness and interactivity of virtual environments and for their contribution to learning outcomes. How such technology should be worked into concrete instructional scenarios draws less attention, and how teachers come to reinterpret instructional design, adjust teaching strategies, and rebuild the teacher-student relationship is examined even less. AI-driven virtual environments do furnish occupational contexts of high fidelity together with immediate feedback [4, 5]. Gamified elements are widely adopted in teacher professional training, and the twenty-seven empirical studies included in one review all report positive effects; the review nevertheless concedes structural limitations—evidence concentrated geographically in Europe, an absence of longitudinal designs, and heavy reliance on self-report measures—which leave the robustness and generalizability of its conclusions open to question [6].

2.2. Research progress on AI scenario simulation in practicum teaching

Domestic scholarship has built a substantial theoretical apparatus at the level of the practicum teaching system, where the development of practicum teaching capability is said to show itself above all in the implementation of the "three authenticities"—authentic projects, authentic processes, authentic assessment—and where the competence teachers acquire in authentic work settings is held to admit no substitute [3]. AI technologies, by way of virtual simulation, can convert authentic enterprise projects and production processes into teaching resources, break down the

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temporal and spatial barriers between colleges and enterprises, and so achieve efficient transformation and pedagogical reworking of industry-education resources [2]. Such work supplies a theoretical anchor for locating AI scenario simulation within practicum teaching, yet it stops short of asking how AI scenarios take hold in a given disciplinary setting, or how improvement in students' learning outcomes is confirmed. On the whole, the literature has accumulated some empirical evidence at the level of technology application while overlooking the fact that AI scenario simulation is not only a vehicle for student learning but also a means by which teachers re-examine their instructional role, identify weak points in their competence, iterate teaching strategies, and lift their instructional capacity further. Empirical work linking such reforms to talent cultivation in vocational colleges remains scarce, and deeper exploration anchored in concrete training settings is needed.

Attention to the differentiated needs of humanities and social science programs remains thin. UNESCO's AI Competency Framework for Teachers lists AI literacy among teachers' core competences, giving national systems a common benchmark. International empirical work likewise shows that teachers' integration of artificial intelligence is generally constrained by technological conditions, curricular fit, ethical reservations, and cultural context [7]. Survey evidence from China points to a set of pronounced problems among vocational college teachers: limited and markedly uneven levels of understanding, a shortage of core competences, and ethical awareness that is shared in principle yet unaccompanied by the capacity to act on it [8]. A recent survey of 326 teachers from fifteen universities paints a similar picture. Most teachers manage basic digital tools well, yet deeper use stays rare: only 32.8% have tried AI lesson-preparation systems, AI-teaching integration remains shallow, and ethical awareness is weak [9]. The approaches in common use in vocational colleges—multi-dimensional practicum systems, project-based practicum courses, four-dimensional practicum pathways—take mostly engineering programs as their object of analysis, and seldom probe the specific composition of AI literacy and the logic of its development within particular professional settings such as secretarial or liberal arts education [10]. That gap leaves room for the present study.

In conclusion, the literature reviewed above has produced a substantial body of theory on AI-enabled education, teacher role transformation, and competence development, but most of it stays at the level of macro frameworks and general strategies and does not examine in any depth how AI actually operates on the transformation of teachers' instructional capacity. Two gaps remain. First, research that integrates practicum teaching projects with AI technology is still at an early stage, and the process mechanism by which AI scenario simulation translates into the transformation of teachers' instructional capacity has not been examined in detail. Second, existing studies concentrate on engineering programs and pay insufficient attention to the transformation that teachers in humanities and social science programs confront in the AI era.

Based on this, this study focuses on the following three research questions. Firstly, under the constraints of large class sizes in teaching, how do teachers carry out differentiated instructional design through AI scenario simulation to respond to students' individualized learning needs? What are the specific implementation paths and operational conditions? Secondly, in AI scenario simulation teaching, what are the actual difficulties and collaborative advantages presented by the dual-teacher collaborative model of "enterprise mentors + course instructors", and how can AI technology be utilized to address these actual difficulties? Thirdly, for modern secretarial education teachers engaged in this type of teaching practice, what are the self-improvement paths in terms of role cognition and teaching ability?

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3. Methodology

3.1. Research sample

The Modern Secretarial major at School A serves as the case for an exploratory single-case study. Working on a practicum platform jointly built with partner enterprises, the major has formed a dual-teacher instructional model that pairs enterprise mentors with course instructors, and it is now introducing a project-based model built on AI work-scenario simulation: AI tools re-create authentic office settings for teaching, so that students complete the full training sequence from task intake to deliverable handover inside a high-fidelity environment. The design differs from isolated skill drills or purely theoretical lecturing in that it follows a modular sequence—an opening phase that consolidates fundamentals, a middle phase of guided first practice, and a closing phase in which outcomes are fed back to learners. What the current practicum still offers, however, is largely standardized, procedure-driven training in office skills, and it has yet to respond systematically to the new work scenarios that AI is generating; this can be seen in Figure 1.

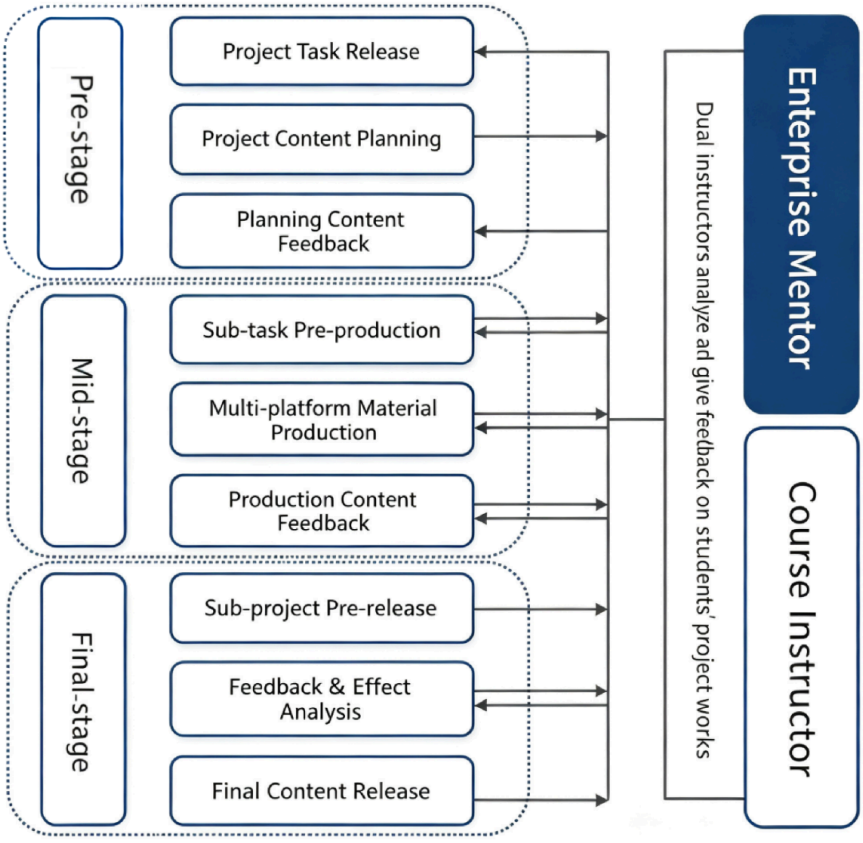


Figure 1. Process of the dual-teacher guidance practical project

There are three groups of participants. The first consists of course instructors: four core instructors deeply involved in the major's AI scenario reform, together with the director of a practicum program at School B. The second is made up of two enterprise mentors currently stationed at School A through its school-enterprise cooperation; the third, three students who have completed their studies under this model.

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3.2. Data collection

Data for this study were collected through three channels. The first, and the principal one, took the form of one-to-one semi-structured interviews with the three groups of participants—course instructors, enterprise mentors, and students—organized around a common set of dimensions: understandings of and attitudes toward AI scenario simulation teaching, difficulties and breakthroughs encountered during implementation, changes in role perception, and the state of school-enterprise collaboration, with each interview running about twenty minutes. The second channel was participant classroom observation of AI scenario simulation teaching as it was delivered, recording teachers' conduct in authentic instructional settings, patterns of teacher-student interaction, and modes of technology use. The third channel combined teachers' written reflective journals with the relevant teaching documents, including AI scenario lesson designs, student practicum work, and teaching evaluation reports, together with other artifacts of the same kind. All of this material was gathered within a single teaching cycle, securing continuity and completeness over time and allowing the several sources to be checked against one another, as can be seen in Table1.

Table 1. Basic information of respondents

No.	Age	Gender	Occupation	Practical Training Project Role
T1	52	Female	Teacher in the Program at School A	Principal person in charge, responsible for program development planning and promoting teaching reform
T2	40	Female	Teacher in the Program at School A	Course instructor; senior teacher with limited use of new technologies
T3	30	Female	Teacher in the Program at School A	Course instructor; young technology-oriented teacher with preliminary AI exploration
T4	35	Male	Teacher in the Program at School A	Course instructor; young technology-oriented teacher with preliminary AI exploration
T5	50	Female	Teacher in the Program at School B	Principal person in charge of the practical training teaching project at School B
C1	54	Female	Enterprise mentor at School A	Director of the General Manager's Office of a machinery manufacturing enterprise
C2	34	Female	Enterprise mentor at School A	Head of the Public Relations Planning Department of a cultural communication company
S1	22	Female	Student participant in the School A project	Third-year student; obtained a corporate internship opportunity through the project.
S2	21	Male	Student participant in the School A project	Second-year student
S3	24	Female	Student participant in the School A project	Graduate

3.3. Research methods

What this study examines is how a concrete professional program puts reform measures into practice, and how that practice varies from one teacher to another. A case study is therefore adopted as the overall research strategy, with semi-structured interviews as the primary method. The focus falls on the process through which AI work-scenario simulation enables the transformation of teachers' instructional capacity—a process that involves changes in cognition, adjustment of

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practice, and reconstruction of professional identity under particular circumstances, and that is for that reason markedly individual and situation-dependent. Qualitative inquiry can capture such working difficulties, and the deliberation over how to address them, with sharper definition. Classroom observation and teaching journals add to the interview data. The study also draws on AI scenario teaching documents, student coursework, and teaching evaluation reports. These sources allow triangulation.

4. Results

4.1. AI scenario simulation in large classes

The tension between large-class teaching and project-based instruction shows itself first in the divergence of students' learning pace and self-directed work capacity. Under a single schedule of progress, a teacher can hardly track where each student stands, let alone respond in time. T3 described the gap in concrete terms: asked to search for materials and draft a proposal on their own, some students are simply at a loss, so that "in one class the motivated ones are already halfway through the project while the passive ones are still at the starting stage". S2 confirmed the picture from the student side: "students with weak initiative slack off and drift through the tasks". The accounts converge: the core difficulty lies less in student differences than in a teacher's lack of energy to track student states and intervene at the right moment.

AI scenario simulation meets this need in two ways. First, immediate feedback relieves the teacher's energy bottleneck: T3 and T4 observed that AI takes over basic commentary and scoring, easing the time pressure when submissions cannot be marked one by one. Second, AI assistance lowers the threshold of implementation. C1 compared before and after: student drafts that once had to be revised from beginning to end now need only small corrections. T1 and T2 added that differentiated teaching is a standing expectation at the school, yet one teacher's experience alone was never enough to set different work-scenario requirements for different students.

The teachers nonetheless voiced reservations that bear directly on instructional design. T2 asked how, in a large class, one teacher can tell whether students holding phones are doing the learning task or simply using the phone. T4 weighed the difficulty of calibrating tasks: "an easy question, and AI solves it in a second, leaving no room for thinking; a hard one, and AI cannot manage it, and students grow frustrated." Looking back from the workplace, S3 argued that AI dependence is not something students notice on their own: the teacher has to build "no-AI" training segments into the design, so that students can compare and see how wide the gap is between what they accomplish with AI and what they can do alone. AI-assisted design does bring real efficiency gains. But the gains last only when teachers pair them with learning checks. These checks show what students can still do on their own.

4.2. The dual-teacher model lacks corresponding institutional support

The dual-teacher arrangement rests on the complementarity of pedagogical and industry logic, yet school institutions, collaboration depth, and evaluation standards hold that advantage in check. The conflict between teaching standards and workplace standards comes first. T1 put it plainly: enterprise mentors bring authentic settings, standards, and cases that course instructors cannot supply, "but the way semester grades are awarded is something they find very hard to put into effect". Mentors carry credibility because they speak from experience, but they have not been

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trained to teach. Most lecture and leave; marking and follow-up tutoring fall back on the course instructors, so the two sides teach side by side rather than together.

Institutional arrangements lag as well. T1 and C2 noted that the school's hourly teaching rate is low against an enterprise engineer's daily pay, so the school invites those who are "willing to help" rather than those who fit best. From the student side, S1 reported the same constraint: the mentor comes only occasionally, and when students turn to her for help, she is too busy to reply quickly and in detail.

The two positions clarify the problem. The mentor's strength lies in authentic industry standards and cases, a contribution no course instructor can replace; yet limited by hourly pay and a regular job, mentors cannot stay with the practicum from beginning to end. Making the mentor's experience embed itself in the teaching system rather than decorate it calls for institutional and practicum-standard refinement, for the obstacle is chiefly institutional.

4.3. Three shifts in teachers' role perception and instructional capability

AI scenario simulation is not just a new tool added to class. It changes how teachers see their roles and what they can do in teaching. The change runs along three lines. The first is a move from "policy executor" to "system designer." T1, who leads the program, described how the aim of reform has shifted from teaching one course well to building a system that can carry the whole teaching team through transformation. The second is a move from "technology novice" to "capability applier." T2 was candid about the risk: used blindly and wholesale, AI drains the major of its humanistic character, for the technology has value in particular segments of the work but must not be placed above humanistic education. T3 and T4 took the more affirmative view that well-used technology raises the completion rate of practicum teaching, and that a teacher's comparative guidance can prevent the dependence and loss of "human touch" that careless use invites. The third is an active exploration of the move from "technology user" to "learning designer." T3 articulated the change with unusual clarity: "the practicum teacher's role is not to 'teach' but to 'design' — design the task situation, design the evaluation criteria, design the points of intervention". T4 supplied a successful instance in which an outstanding student obtained an enterprise internship through the project, and preferred the word "evolution" for teachers' AI skills: as repetitive labor is taken over, teachers gain energy for creative work — provoking students to think, guiding them to reflect, and accompanying their growth.

Comparing the three trajectories shows that differences in role cognition grow out of how each teacher understands the relation between the substance of the profession and the technical instrument, and that teachers of different ages and teaching histories changed at different speeds. That differentiated response is itself evidence that AI scenario simulation does not act on teachers in a single direction, as either "empowerment" or "shock"; it presses each teacher to re-anchor his or her role between technical logic and educational logic. What can be said with confidence is that all are being pushed the same way: from operators who execute a given teaching procedure toward designers and reflectors who must judge, choose, and justify the goals, means, and evaluation of their teaching.

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5. Discussion

5.1. AI data-enabled design of differentiated teaching

AI scenario simulation turns authentic occupational contexts into interactive teaching tasks while continuously recording students' behavioral traces and decision processes along the way. The core value of this environment lies in how it redistributes the division of labor between the human and the machine in teaching. Under traditional practicum teaching, one teacher carries content delivery, process monitoring, marking, and individual tutoring at once, and with classes of forty to fifty, following every student and intervening at the right moment is close to impossible. By stripping standardized feedback, format checking, and preliminary scoring away from the teacher's duties, AI frees the limited energy that remains for higher-order tasks that demand professional judgment and emotional investment: diagnosing learning needs, guiding students in tiers, and adjusting teaching strategy as conditions change. The system also logs students' operation paths, task completion times, and frequency of revision, and forms this into visualized learning data. Teachers use it to identify ability gaps and learning rhythms and to find a basis for pushing tiered tasks and individualized intervention.

Support of this kind, however, is not an automatic outcome of the technology. It depends on whether teachers can orchestrate, at the level of instructional design, what AI is permitted to do, when it intervenes, and where the boundary of a task runs. Put another way, AI serves personalized learning only when the teacher folds it into a differentiated strategy and assigns it a clear functional position. The course instructors in this study worked with three stages whose goals differ: in the foundation stage, AI is opened up so that students build a sense of the technology; in the advanced stage, AI is restricted so that independent capability is strengthened; in the integrative stage, AI is opened again to train optimal decision-making under human-machine collaboration. This design converts AI from "a tool that replaces labor" into "a teaching component." Even so, a repetitive task cannot simply be handed to students with no boundary and no supporting mechanism. Efficient differentiated task design rests on the teacher's timely adjustment and continuous supervision and checking; differences in learning attitude and in technical skill, left alone, will widen the gaps between students.

5.2. Improving supporting policy for dual-teacher collaboration

For vocational colleges, practicum projects run under the dual-teacher system do improve teaching and do strengthen the occupational readiness with which students meet society. Enterprise mentors bring authentic cases and industry standards, experiential resources that course instructors cannot substitute; course instructors command the laws of teaching and the character of their learners, and they carry the follow-through of instruction. The two sides complement each other, yet without a stable, institutionalized mechanism of connection, the synergy cannot be fully realized. T5, the practicum program director at School B, offered one workable path: by maintaining a relatively stable pool of enterprise mentors and covering mentor participation through special funds for industry-education integration, School B has eased, to a degree, the breakdown of collaboration that a loose expert pool produces. At the operational level, the division of labor should be sharper. Course instructors set teaching goals, control pacing, and guide the process. Enterprise mentors bring in industry standards, real cases, and judge how practical the outcomes are. The AI system handles standardized format checks and basic feedback. Each side does its own part, so the framework of "teacher designs, AI assists, enterprise vets" takes shape. C1 and C2 added two

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working practices from their interviews. One is joint preparation before class; the other is separate scoring with separate feedback. Collaboration does not need identical judgment. Keeping different evaluative views and letting students weigh them comes closer to how a real workplace evaluates. Earlier discussions of dual-teacher collaboration looked at its institutional design mainly through school-enterprise cooperation models. In AI-supported teaching, two kinds of knowledge shape instructional outcomes: knowledge for teaching and knowledge for practice. Their effects deserve more careful handling. That work needs two things. It needs more discussion between enterprise mentors and course instructors. It also needs institutional design that bridges the two logics of knowledge production and evaluation.

5.3. Building a support system for teachers' capability transformation

The arrival of AI scenario simulation is more than a new tool. It reshapes how teachers see their roles and what they can do in class. Teachers do not simply accept or reject the technology. They rebuild their roles so that technology and education work together. This change runs along different paths for different groups. T1, who leads the program, no longer focuses on teaching itself but on designing the system behind it. Her work gave the reform rules to follow. T3 and T4, both young, have moved toward the role of "learning designers." The core of their work has shifted from teaching knowledge to designing situations, setting standards, and picking key intervention points. In practice, they built tiered strategies. AI data show where students differ, and tasks of different levels go to different students, so technology serves personalized goals. T2, a senior teacher, stays a careful skeptic. She accepts AI's speed in standardized tasks but insists humanistic training and communication skills cannot be replaced in secretarial education. Teachers at every stage need further training. Each must grow from a procedure operator into a designer and reflector, from "technology user" to "learning designer."

What deserves particular notice is the practical difficulty of rebuilding evaluation standards, which teachers across the board encountered once AI entered the teaching: how to separate "the student's ability" from "the AI's contribution," and how to build a plural system that attends to process as well as outcome. The course instructors' answer combines separate scoring by the two teachers with student self- and peer-assessment, forming a four-party evaluative community of "enterprise mentor, course instructor, AI system, and student," so that evaluation returns to the examination of a student's independent judgment and professional competence under AI assistance. The formation of AI literacy is, in essence, a process by which teachers re-establish professional identity on different experiential and value-based foundations, and the support different teachers need differs in kind rather than degree.

Transformation therefore calls for a tiered support system and a systematic design of teacher training. Younger teachers need advanced training that fuses technology application with instructional design, aimed at the core question of how technology embeds precisely in particular teaching segments. Senior teachers need recognition of the value of their experience and a mutual-learning mechanism in which experienced and novice teachers teach each other, transmitting tacit knowledge and technical skill across generations through the figure of a "technology helper." Program leads need support in system design and standard building, so that graded standards of teachers' AI teaching capability can be established and carried out at the level of the school. The content of training, finally, should extend beyond operation to instructional design and evaluation reform, helping teachers think systematically about the value and the boundary of AI across what to teach, how to teach, and how to evaluate. The final aim of bringing AI into the teaching scene is not to make every teacher the same "technical teacher" but to let each find a new equilibrium of human-

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machine collaboration on the ground of his or her own experience, so that technology serves the essence of education rather than replacing it.

6. Conclusion

This study took the project-based practicum reform in the Modern Secretarial major at School A as a single case. The findings show that AI work-scenario simulation, through instant feedback and tiered tasks, eased the pressure of differentiated instruction in large classes; yet the gains depended on teachers deliberately setting the boundaries of AI use, its permissions, the pacing of intervention, and where tasks began and ended, together with a learning-check mechanism. In addition, dual-teacher collaboration, though complementary in value, remained constrained by pay arrangements and by how the collaboration itself was organized. What is needed is a division of labor in which the course instructor leads the instructional design, the enterprise mentor links classroom work to real workplace demands, and AI serves as a supporting framework. Teachers with different teaching backgrounds also require targeted capability building, stepped according to their actual needs. Because this was a case study with a relatively small number of interviewed teachers, the transferability of these conclusions awaits testing on larger samples. Future work could extend the comparison to other majors and institutions and track the long-term effects of teachers' capability transformation, thereby supplying fuller empirical evidence for AI-enabled reform of practical teaching in higher vocational colleges.

References

[1] Zhang, J., Li, Y., Liu, Y., & Xu, X. (2026). Research on the role transformation and core capability development of higher vocational teachers as "learning designers" under the "AI + Education" initiative. *Society and Public Welfare*, (13), 249–252.

[2] Chen, X. (2026). A study on the mechanism by which AI gamified teaching empowers the role transformation of higher vocational teachers in the context of industry–education integration. *Journal of China Multimedia and Network Teaching (Mid-Month Edition)*, (4), 25–28.

[3] Yue, C. (2026). Pathways for improving the competence of higher vocational teachers from the perspectives of industry–education integration and digital transformation. *Henan Education (Teacher Education)*, (7), 18–19.

[4] Zhou, M., & Peng, S. (2025). The usage of AI in teaching and students' creativity: The mediating role of learning engagement and the moderating role of AI literacy. *Behavioral Sciences, 15*(5), 587. https://doi.org/10.3390/bs15050587

[5] Alenezi, A. (2023). Teacher perspectives on AI-driven gamification: Impact on student motivation, engagement, and learning outcomes. *Information Technologies and Learning Tools, 97*(5), 138. https://doi.org/10.33407/itlt.v97i5.5437

[6] Al Amri, F., Alias, N., & DeWitt, D. (2026). Systematic literature review: Gamification in teacher professional training (2019-2025). *Frontiers in Education, 11*, 1819092. https://doi.org/10.3389/feduc.2026.1819092

[7] Filiz, O., Kaya, M. H., & Adiguzel, T. (2025). Teachers and AI: Understanding the factors influencing AI integration in K-12 education. *Education and Information Technologies, 30*, 17931-17967. https://doi.org/10.1007/s10639-025-13463-2

[8] Li, Z. (2026). Research on improving the artificial intelligence literacy of higher vocational teachers in the context of digital transformation. *Journal of Hubei Open Vocational College, 39*(7), 83–85+89.

[9] Li, X. (2026). Research on the connotation and enhancement paths of digital literacy of university teachers in the context of artificial intelligence. *Journal of Hubei Open Vocational College, 39*(15), 72–74.

[10] Wen, X. (n.d.). Pathways for enhancing the digital literacy of art and design teachers in higher vocational colleges in the context of digital transformation. *Journal of Jiangsu Vocational Institute of Architectural Technology, 1*–4. https://doi.org/10.19712/j.cnki.jsjyxb.20260701.001.