Utilization and Resource Integration of Intelligent Learning Platforms for English Teaching in Vocational Colleges in the AI Era

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Abstract: With the gradual advancement of global economic integration, the importance of English as a tool for communication has become more pronounced, particularly in cultivating students' cross-cultural communication skills and their ability to apply English in professional contexts. However, traditional teaching models often disconnect from real-world professional scenarios, suffer from outdated resources, and face widespread issues of insufficient student-teacher ratios, resulting in classroom teaching outcomes that fall short of expectations. After graduation, students find it challenging to adapt to the demands of using English in the workplace within a short period. In today's rapidly developing landscape of artificial intelligence (AI) technology, the integration of AI into vocational college English has enabled precise and personalized teaching through the construction of intelligent learning platforms. Based on this, this paper provides an in-depth analysis of the current state of resource integration for intelligent learning platforms in vocational college English within the AI context, proposing strategies for platform utilization and resource integration, with the aim of emphasizing the critical role of AI technology in enhancing the quality of vocational college English and improving students' ability to use English professionally.

Keywords: AI Technology; Vocational College English; Intelligent Platform; Resource Integration

1. Introduction

The rapid development of AI technology has provided strong technical support for English teaching in vocational colleges. In practical teaching, AI technology not only effectively addresses issues such as the insufficient student-teacher ratio, lack of adaptability, resource fragmentation, and accuracy deviations inherent in traditional teaching models, but also achieves an organic integration with vocational scenarios. Particularly after the establishment of intelligent learning platforms, the platform's features—such as intelligent assessments, data-driven approaches, personalized resource recommendations, and virtual scenario training—have laid a solid foundation for mastering and effectively utilizing English. The effective use of this platform has profound implications for enhancing vocational English proficiency and competitiveness in the job market.

2. Basic Requirements for English Teaching in Vocational colleges under the AI Ecosystem

2.1 Meeting Personalized Learning Needs

Vocational college students exhibit significant variations in their English proficiency. Some students enter with weak foundations from high school, characterized by limited vocabulary, poor fluency in spoken English, and insufficient mastery of grammar. For this group, emphasis must be placed on reinforcing basic knowledge. In contrast, students with solid foundations are more motivated to surpass their current level and advance toward career-focused English and practical skills. For this cohort, it is essential to adopt more specialized and systematic teaching approaches during practical instruction. If teaching progress, assessment methods, training strategies, and instructional content remain uniform for all students, it becomes challenging to address the needs of weaker students seeking foundational improvement and stronger students striving for higher-quality advancement, ultimately compromising the effectiveness of classroom teaching[1]. In response to this issue, vocational English instruction in the AI-driven

era should leverage intelligent learning platforms to deliver precisely tailored solutions. By integrating students' English proficiency levels, classroom performance, personal interests, and career aspirations, personalized learning plans can be developed to ensure simultaneous improvement for both weaker and stronger students. Such a strategy minimizes the risk of "falling behind" for one group and "being underchallenged" for the other, fostering balanced and effective learning outcomes.

2.2 Meeting the Requirements for Occupational Scenario Adaptation

The core educational objective of vocational colleges is to cultivate skilled professionals to meet the demand for specialized talent in frontline positions related to production, construction, management, and services. However, the traditional teaching model of vocational English often focuses on "general English" and rarely connects with vocational scenarios. Students from various disciplines face markedly different English requirements in their future careers. For instance, automotive repair students frequently encounter English repair manuals for imported vehicles or need to communicate with foreign technicians in real-world scenarios. Meanwhile, cross-border e-commerce students must possess strong business English skills to engage effectively with international clients or partners. Their ability to interpret detailed regulations on global platforms hinges on professional business English proficiency; a lack thereof could hinder their understanding of contractual terms and platform rules. In response to these challenges, vocational English instruction in the AI-driven era must fully utilize the functional advantages of intelligent learning platforms. By creating tailored teaching experiences that match specific job scenarios, educators can significantly enhance students' professional skillsets. This approach ensures that students from different majors are well-prepared for the English demands of their future employment, enabling seamless alignment between vocational training and workplace language requirements.

2.3 Meeting the Demand for Improved Classroom Teaching Efficiency

In the past, teachers engaged in English teaching activities often had to undertake a significant amount of repetitive and mechanical work, which severely encroached on their personal time. Duties such as the extensive grading of assignments, patient academic guidance, and the creation of teaching presentations required substantial personal investment of both time and energy. However, with the advent of AI technology, this situation has markedly improved. Vocational English teaching can now rely on intelligent tools to relieve teachers from repetitive and mechanical labor. Tasks such as bulk assignment grading, learning outcome evaluation, and automatic generation of learning reports can be efficiently handled through smart learning platforms. These platforms also enable in-depth data analysis to track students' progress and knowledge acquisition, providing valuable insights for classroom instructional design. Consequently, teachers can utilize their freed-up time to refine and enhance teaching content and methods, offering targeted support to students with weaker English foundations. This strategic approach significantly contributes to improving classroom teaching efficiency and effectiveness[2].

3. Functional Advantages of Intelligent Learning Platforms for Vocational College English Teaching

3.1 Dynamic Learning Situation Analysis and Customized Learning Plan Function

Compared to traditional vocational English teaching models, intelligent learning platforms offer dynamic analyses of student progress. Once students successfully register, they can log in directly to the management interface to submit daily assignments, English proficiency test results upon admission, and data on classroom interaction. The system collects data on vocabulary mastery, grammatical accuracy, listening comprehension, and spoken language in professional scenarios. Through thorough analysis and AI algorithms, personalized learning profiles are constructed to accurately pinpoint areas of weakness. For instance, difficulties with translating business English terminology or lack of fluency in workplace interviews can be identified. Based on these learning profiles, customized learning plans are automatically generated, assisting students in rapidly enhancing their ability to apply English knowledge effectively.

For students with a weaker foundation in English, the platform automatically provides

resources like basic vocabulary drills and grammar micro-lessons, helping them solidify their foundation and enhance proficiency in vocabulary, phrases, and grammar application. For students specializing in business English, it pushes content on writing techniques for trade correspondence and communication skills for cross-border e-commerce, aiming to improve professional language use. Those about to enter the workforce receive tailored workplace scenario dialogues to boost their adaptability to specific roles. This capability to offer customized services based on individual student needs plays a crucial role in enhancing professional skills, developing English competency, and ensuring precise job readiness.

3.2 Interactive Learning and Dynamic Resource Updating Function

For vocational students, mastering English requires the ability to "understand, learn, and use effectively". However, traditional teaching methods, characterized by their monotonous format, lack of diverse content, and low interaction frequency, often struggle to engage students, making it difficult for some to quickly enter a learning mindset. In contrast, intelligent learning platforms employ multimodal interactive learning features to invigorate the classroom atmosphere and provide students with more opportunities for self-expression and improvement. The platform's pronunciation practice module can compare pronunciation accuracy in real time, automatically identify issues such as stress and connected speech, and offer corrective suggestions. The virtual workplace scenario module simulates various practical environments linked to employment roles, such as client negotiations, cross-border communication, product presentations, and hotel services. Students can engage in role-playing interactions with these scenarios, receiving immediate feedback and corrections from the platform based on their performance[3].

In terms of resource updates, the intelligent learning platform interfaces with corporate resources to provide real-time updates on workplace English cases, such as the latest foreign trade policies issued by the industry, live streaming scripts for cross-border e-commerce, and newly introduced terminology in the field of AI. These resources not only broaden students' horizons and enhance their knowledge but also provide a solid foundation for their future rapid adaptation to job positions. For instance, with the emergence of the new energy vehicle industry, new professional terms such as Solid State Battery, Vehicle to Everything (V2X), Autonomous Driving, and Smart Connected Vehicle have been introduced. The intelligent learning platform is capable of connecting with the new energy vehicle sector to update these terms in real time. Meanwhile, the platform also features multi-device compatibility, allowing students to interact with it through computers, tablets, and smartphones during their fragmented time, significantly enhancing the convenience of learning.

3.3 Data Management and Multidimensional Evaluation Functions

Vocational students often have complex learning contexts and significantly varied proficiency in English, making it challenging to accurately assess their understanding and mastery of the language. However, the introduction of intelligent learning platforms, with their built-in data management capabilities, provides robust support for analyzing student progress, managing teaching pace, and enhancing instructional quality. By integrating data on study duration, assignment completion rates, and test accuracy, the platform automatically generates individual learning reports. Based on these insights, educators can offer targeted feedback, saving considerable time in the process. Notably, in designing assignments, the platform creates differentiated tasks tailored to diverse student groups, such as vocabulary and grammar exercises for those with weaker foundations, and business English translation and workplace writing tasks for more advanced students. This layered approach, closely aligned with students' actual needs, lays a solid foundation for advancing their ability to apply English knowledge effectively.

In the teaching evaluation phase, teachers can utilize the multidimensional evaluation functions of intelligent learning platforms to assess students' learning outcomes through various evaluation methods, including teacher feedback, peer evaluations, self-assessments by students, and evaluations from industry mentors. For instance, during the industry mentor evaluation segment, feedback can be provided from a professional perspective, taking into account real-world business scenarios to assess students' workplace English communication

skills, along with immediate corrective suggestions for improvement. Additionally, the platform's database contains a wealth of historical teaching data, which allows for the comparison of English scores and competency rates across different classes, semesters, and student groups. This comparison serves to evaluate the effectiveness of the current teaching plan, enabling continuous optimization of teaching processes, innovation in classroom teaching methods, and steady improvement in teaching efficiency[4].

4. Main Issues in the Integration of Teaching Resources for Vocational College English

4.1 Fragmentation of Resource Types

Regarding current vocational English teaching resources, there are issues such as massive quantities, low correlation, and poor specificity, leading to overly fragmented resources that are difficult to integrate. Firstly, resources are sourced from various channels, including online public education platforms, commercial English learning software, offline textbooks, and extracurricular aids. These channels lack effective integration pathways, causing the resources to exist independently. For instance, the English listening resources provided by various online platforms are disconnected from the workplace business dialogues found in offline textbooks. Even if students acquire listening resources online and master learning methods, it is challenging to transfer that knowledge to professional contexts, significantly reducing the efficiency of resource utilization. Furthermore, there is a serious disconnect between the specific content of teaching resources and professional demands. Most resources still carry the shadow of "exam-oriented" education, focusing primarily on vocabulary, grammar, and the CET-4 and CET-6 professional exams, while neglecting the professional characteristics of vocational students, such as those in mechatronics, business English, nursing, and logistics, which leads to a significant gap in their English learning needs[5]. Taking logistics as an example, current teaching resources rarely include English negotiation resources for cross-border e-commerce or English interpretation resources for international freight documents. This not only affects students' future employment prospects but also runs counter to the goals of vocational college English education.

4.2 Superficial Resource Integration

In today's rapidly developing landscape of AI technology, several vocational colleges have successively established intelligent learning platforms. However, from the perspective of resource integration, these platforms have not deeply integrated with AI technology; the application of technology remains superficial, and the degree of resource matching is relatively low, resulting in unsatisfactory application outcomes. Firstly, the resource tagging system is inadequate. Existing resources are labeled in broad terms such as "listening training, reading training, writing training", without subdividing training difficulty levels or establishing training objectives. This "extensive" approach prevents AI algorithms from accurately identifying students' majors, English proficiency, and learning needs, leading to the platform's inability to precisely recommend learning resources. For example, students in the electromechanical engineering program, who have a relatively weak foundation in English, may receive recommendations for advanced business English learning resources due to overly simplified resource tags. This mismatch in resource recommendations can easily lead to a loss of interest in learning among students.

Additionally, when optimizing teaching resources using AI technology, many platforms still primarily rely on static text and pre-recorded videos. These intelligent platforms only possess audio-visual playback capabilities and basic assessment functions, but they are unable to achieve dynamic resource adjustments through in-depth data analysis. For instance, in the speaking assessment segment, AI tools can only provide feedback on pronunciation accuracy. If a student exhibits issues such as unclear connected speech, inaccurate intonation, or incorrect pitch, the system cannot link to resources for pronunciation correction, which is extremely detrimental to the improvement of English speaking proficiency.

4.3 Decentralization of Resource Management

The integration and management of English teaching resources in vocational colleges is not limited to the English teaching and research group alone; it also involves multiple entities

such as the academic affairs office, professional departments, and technical departments. Additionally, it requires the integration of on-campus training resources, course resources, as well as off-campus workplace scenario resources and industry association resources to enhance resource utilization efficiency. However, the current state of resource management reveals that various departments on campus and different external scenarios operate completely independently, resulting in a lag in the resource integration process. Firstly, regarding on-campus resources, there is a lack of necessary communication between departments, particularly between the English teaching and research group and professional departments. A regular communication mechanism has not been established, and professional teachers have not participated in the development and selection of English resources. Consequently, English teachers have only a limited understanding of the workplace English requirements of various majors, leading to a disconnect between English resources and professional teaching[6]. For instance, the platform's virtual simulation function is designed to simulate various English application scenarios; however, it lacks corresponding workplace English simulation resources related to specific professions, resulting in this function being underutilized for an extended period.

Secondly, in terms of integrating external resources, vocational college English teaching should incorporate authentic workplace resources from enterprises, including English training materials and workplace scenario videos. However, in practice, companies often retain core resources due to concerns about information security, privacy, and commercial confidentiality, which results in these resources not being publicly available and significantly diminishes the practical application value of the platform. Additionally, there is a lack of resource cooperation mechanisms between vocational colleges and industry associations or external training bases, making it difficult for schools to access the latest industry English standards. Consequently, the teaching resources cannot keep pace with industry developments, which is extremely detrimental to students' future adaptability in the workplace.

5. Utilization and Resource Integration Strategies for Intelligent Learning Platforms in Vocational College English under the AI Ecosystem

In the context of AI, there has been a profound transformation in the teaching model of English in vocational colleges, shifting gradually from a traditional teacher-centered approach to a more intelligent and precise teaching method. Particularly after the establishment of intelligent learning platforms in various schools, the limitations of traditional teaching models in terms of time and space have been overcome. Through data-driven approaches and precise matching, students' needs for learning English have been met, resulting in increasingly evident outcomes in classroom instruction and a significant enhancement in students' English application abilities and competitiveness in the job market.

5.1 Establishing an Intelligent Platform for the Entire Process Before, During, and After Class

After the intervention of AI technology, various aspects of vocational college English, including pre-class, in-class, and post-class activities, have been endowed with intelligent definitions. Personalized pre-class guidance, spatial interaction mechanisms during class, and contextualized practice after class have all laid a solid foundation for the manifestation of English learning outcomes. Firstly, in the pre-class preparation phase, the intelligent learning platform has implemented an adaptive testing feature for incoming students. This feature can automatically generate learning reports based on vocabulary size, grammar proficiency, and listening, speaking, reading, and writing abilities, accurately identifying students' weaknesses. For instance, some students may have poor listening comprehension, while others may have a limited vocabulary in their field. Based on diagnostic assessments, the platform automatically recommends tiered pre-study resources. If a student has a weak foundation in English, the platform will provide resources such as basic grammar explanations, simple dialogue training, and vocabulary exercises. Conversely, if a student has a solid foundation, the platform will automatically suggest resources such as workplace scenario English dialogue practice and excerpts from professional English literature, ensuring that every level of student can accurately find their direction for preparation[7].

Secondly, in the teaching segment of the class, intelligent learning platforms have broken free from the traditional textbook model of "teacher lectures, student listening", by utilizing real-time interactive features to engage students' initiative, thereby enhancing their ability to use English. For instance, teachers can initiate instant quiz tasks on professional English terminology matching and workplace scenario dialogue selection through the platform. Students can respond in real-time via their mobile devices, with their answers being synchronized. Once the data is uploaded to the platform, teachers can easily assess each student's learning status and outcomes. For knowledge points with a higher error rate, teachers can promptly adjust the teaching pace and provide targeted explanations. As AI technology continues to mature, some intelligent platforms have now integrated AI oral assessment functions, which evaluate students' pronunciation, intonation, and grammatical accuracy in workplace English expressions. When errors are detected, immediate correction suggestions are provided, creating favorable conditions for the efficient execution of classroom teaching activities.

In the post-class practical sessions, in order to assess the effectiveness of classroom teaching and learning outcomes, the intelligent platform provides students with multiple professional scenarios relevant to their fields of study. Through experiential learning in these scenarios, students can broaden their knowledge horizons and become familiar with the basic requirements of future employment positions, which greatly aids in enhancing their professional competencies. For instance, the platform simulates a cross-border e-commerce customer service communication scenario, where students interact with AI virtual characters through voice and text output. The platform evaluates students based on their interaction process and offers personalized training plans to help them translate classroom knowledge into practical job skills. Meanwhile, the intelligent platform can record information such as resource viewing duration and exercise completion status in real time, automatically generating periodic learning reports. By carefully reviewing these reports, students can identify their own issues and shortcomings, providing important reference for optimizing and adjusting teaching plans[8].

5.2 Adhering to the Principle of Hierarchical Classification, Implement Dynamic Updates of Resources

In the process of resource integration for intelligent learning platforms, it is essential to adhere to the principle of "student-centeredness", transforming fragmented and dispersed teaching resources into personalized resources that meet students' learning needs and job position adaptability requirements. First, it is important to uphold the principles of stratification and categorization to satisfy the individualized needs of different student groups. In terms of hierarchical structure, resources can be divided into three levels: foundational, enhancement, and expansion, while simultaneously establishing a resource repository. The foundational level primarily includes core English vocabulary, basic grammar, and everyday communication dialogues. By studying these foundational resources, students can further solidify their English fundamentals, laying the groundwork for subsequent learning of more complex English knowledge. The enhancement level focuses on general workplace English resources to improve students' adaptability to future job demands. The expansion level encompasses English resources from various fields such as international trade, mechatronics, and hotel management, aimed at enhancing practical English application skills. In terms of resource categorization, micro-courses, teaching materials, exercises, practical cases, and listening materials can be structurally integrated and labeled with corresponding competency objectives, such as writing simple foreign trade emails and engaging in basic business English conversations. This categorization method facilitates easier access for students to the resources they need, significantly increasing resource utilization efficiency.

Secondly, vocational education focuses on cultivating skilled talents; therefore, when integrating English teaching resources, it is essential to align them with industry job requirements. For instance, students majoring in international trade should be provided with resources such as templates for foreign trade correspondence, case studies on cross-border e-commerce platform communication, and interpretations of letters of credit in English. Students in the electromechanical field should be given resources that include interpretations of

equipment manuals in English, dialogues for international technical exchanges, and introductions to product specifications in English. To ensure the timeliness and practicality of these resources, vocational colleges, in light of the AI landscape, are establishing a dynamic resource updating mechanism. They will regularly track industry trends to acquire the latest resources promptly, ensuring that platform resources remain in sync with industry developments. Additionally, after new resources are introduced, the platform needs to analyze their effectiveness, and based on the analysis results, optimize any underutilized redundant resources while simultaneously incorporating high-quality teaching resources, such as popular short video courses and micro-lecture materials.

Finally, vocational colleges are encouraged to establish a cross-platform linkage mechanism to enable resource sharing and interaction among various platforms, thereby addressing issues of resource fragmentation and low utilization rates. For instance, by integrating existing teaching platforms, third-party English learning platforms, and specialized resource libraries provided by enterprises through API interfaces, a unified resource retrieval entry can be established on the platform. After logging into the platform, students can quickly search for teaching and learning resources from different platforms by entering keywords such as business English emails and electromechanical terminology. This resource supply model not only prevents resource waste but also provides a solid foundation for enhancing comprehensive English application skills.

5.3 Implementation of a Multimodal Resource Integration Mechanism

In the context of AI, the integration of English teaching resources in vocational education should break through the barriers formed by traditional integration models that rely solely on text, images, and audio. By utilizing multimodal resource integration, we can enhance the ability to transfer English knowledge into vocational contexts. Firstly, in terms of resource format integration, it is essential to combine general foundational knowledge with vocational applications. For teaching dry content such as vocabulary, phrases, and grammar, multimodal integration can enhance the engagement of the learning process. For instance, vocabulary teaching resources can integrate "text definitions + standard pronunciation audio + contextual images + dynamic example sentences". When learning the term "logistics", in addition to presenting the spelling and pronunciation of the word, real-life images of cross-border e-commerce warehouse sorting and goods transportation can be displayed, along with audio of workplace example sentences like "Our company specializes in international logistics services", allowing students to intuitively understand the meaning and application scenarios of the word. This engaging learning model significantly helps to stimulate enthusiasm for learning English. When developing grammar teaching resources, it is possible to integrate micro-lessons, interactive training, and instant feedback. For example, short videos can break down knowledge points such as "the use of tenses in business emails". The videos can include interactive tasks like "click to select the correct tense" and "drag to reorganize sentences". After students complete these tasks, AI can instantly mark errors and explain the reasons, thereby avoiding the traditional issues of "one-way listening and post-class forgetting" in grammar learning. In terms of listening resource integration, immersive dialogues and interactive Q&A sessions can be designed, allowing students to practice their listening and speaking skills through face-to-face communication with real people.

Secondly, at the level of professional application, AI technology, virtual reality (VR) technology, and augmented reality (AR) technology can be utilized to create workplace scenarios that enhance vocational adaptability. For example, in the field of international trade, one can integrate templates for foreign trade correspondence, instructional videos on letter writing, and AI simulation writing practice resource packages. Students first familiarize themselves with the formats and common expressions used in foreign trade inquiries and replies through text templates. They then watch a video where the instructor explains "Key Information Extraction and Tone Control in Correspondence". Finally, they enter an AI simulation scenario where they draft correspondence based on the "customer requirements" provided by the system, such as ordering 1,000 handicrafts with a delivery requirement within 15 days. The AI will provide real-time scoring based on dimensions such as

format compliance, information completeness, and accuracy of business tone, while also highlighting the main issues encountered during the interaction. In the field of hotel management, VR technology can be employed to develop customer service scenarios. Once the scenario is presented, polite English phrases for interacting with customers, such as "May I clean your room now?" will pop up in front of the students. Additionally, they can engage in dialogue with virtual guests using AI technology. This resource integration model will have a positive impact on the clarity of English pronunciation and the accuracy of grammatical expressions[9]. Additionally, vocational colleges can break down multimodal resources into fragmented learning segments of 5 to 10 minutes, allowing students to utilize their fragmented time for knowledge acquisition and reinforcement. For instance, this could include detailed explanations of individual words or simulations of brief workplace dialogues. This resource integration model, which starts from the subjective ideological perspective of students, can not only stimulate learning interest and continuously enhance students' ability to apply knowledge but also significantly develop their professional qualities, enabling students to experience the professionalism of future employment positions in advance.

6. The Guarantee Mechanism for the Utilization of Vocational College English Teaching Platforms and Resource Integration in the Context of AI

6.1 Conducting Systematic Training and Establishing A Normalized Technical Service Mechanism.

In response to the personalized needs of different groups of teachers, vocational colleges should design differentiated training content. First, the focus should be on platform operation and instructional design, with training activities divided into three phases. The first phase involves basic operational training, which includes inviting technical personnel from the platform developer or internal technical staff to explain the core functions of the platform through a combination of "offline hands-on practice + online recorded sessions", ensuring that teachers can independently perform the basic operations required for classroom teaching. The second phase focuses on integrated application training, collaborating with educational technology experts from universities or outstanding frontline teachers to conduct "AI + English" instructional design. This phase will utilize case sharing, group discussions, and practical exercises to enhance teachers' abilities to use intelligent tools. The third phase consists of advanced enhancement training, aimed at teachers with potential, focusing on resource development and secondary optimization of the platform. This training will guide teachers in using the platform's built-in resources to create teaching tools and develop instructional resources that align with the unique characteristics of their school's programs, as well as provide suggestions for optimizing platform functions. Additionally, issues related to platform usage and resource acquisition from both teachers and students will be collected monthly or each semester, and solutions will be proposed for common problems to improve satisfaction among faculty and students.

6.2 Conducting Diversified Teaching and Research Activities to Enhance Teachers' Skill Levels

To improve and enhance the effectiveness of intelligent learning platforms, vocational colleges should not only elevate the level of teachers' application of intelligent technologies but also engage in diversified teaching and research activities, enabling the teaching staff to truly become the executors and designers of these intelligent platforms. Firstly, through school-enterprise cooperation, vocational colleges should strengthen career-oriented capabilities. Establishing practical training bases for teachers in industries such as cross-border e-commerce, foreign-related hotels, and mechanical manufacturing, English teachers should be arranged to practice on-site in the foreign-related departments of enterprises for 1-2 months each year. This will allow them to participate in real workplace English communication and understand the latest English application needs in the industry. Additionally, key personnel from enterprises involved in foreign-related business should be invited to campus to jointly conduct seminars on the development of industry-specific English resources, guiding teachers in selecting teaching materials that align with actual job requirements, ensuring a seamless connection between resources and workplace needs. Actively

collaborating with vocational colleges across the province and even nationwide that are implementing "AI + English" teaching reforms, regular cross-school teaching and research activities should be organized for teachers, such as "observational classes on intelligent platform teaching cases" and "experience-sharing sessions on multimodal resource integration", allowing teachers to learn directly from the successful practices of other institutions. Furthermore, teachers are encouraged to participate in national forums or training courses on "AI education" to stay updated on the latest technological trends and teaching concepts in the industry, ensuring that the application value of intelligent learning platforms is fully realized[10].

6.3 Improving the Data-Driven Evaluation Mechanism and Optimizing High-Quality Teaching Resources

When evaluating various types of teaching and learning data, it is essential to integrate both process data and outcome data to extend the assessment from scores to competencies. First, the pre-class phase focuses on metrics such as "completion rate of preview resources and accuracy rate of preview tests", while the in-class phase tracks "participation rate in interactive tasks, accuracy rate of real-time responses, and AI speaking assessment scores". In the post-class phase, data such as "achievement rate of simulated vocational tasks, frequency of resource repetition, and improvement in scores from periodic tests" are monitored. Secondly, in terms of teacher evaluation, the focus is on optimizing data related to the adaptability of instructional design, the relevance of in-class interactive tasks to teaching objectives, and the usage rate of resources uploaded by teachers, ensuring that the evaluation report accurately reflects the teaching proficiency of educators. Additionally, for high-quality teaching resources, the platform's homepage should feature a "Recommended Quality Resources" section, paired with "Teacher Usage Cases" to enhance the visibility and utilization of these resources. After resource optimization, a re-evaluation is required. Resources that have issues should be temporarily removed from the platform, allowing the developing teachers to revise them within one month based on the evaluation feedback. If the revised resources still do not meet standards, they will be moved to a resource recycling bin to prevent redundant resources from occupying platform space.

7. Conclusion

In the context of AI, vocational colleges can effectively address the issues of slow information transmission, low teaching efficiency, poor classroom interactivity, and insufficient job position adaptability associated with traditional teaching models by making reasonable use of intelligent learning platforms. This approach will establish a scientifically sound and comprehensive plan for platform utilization and resource integration, thereby enabling the efficient use of English teaching resources. In the future, with the continuous advancement and development of AI technology, innovative teaching and learning models such as virtual digital teachers and VR training will emerge, and vocational English teaching will gradually progress towards immersive, situational, and intelligent directions, resulting in more pronounced outcomes in vocational college English.

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References

[1] Zhu Siying, Zhang Yanxin. Research on the Construction and Application of Higher Vocational English Teaching Resource Platform under the Background of Digitalization: A Case Study of the Higher Vocational English "Cloud Platform" Construction. Overseas English, 2024, (18): 225-227.

[2] Wang Yuying, Li Guanghuan. Construction of a Public English Teaching Resource Database for Higher Vocational Education Based on the Learning Platform. Public Relations World, 2024, (09): 78-80.

[3] Fu Zhiyang. Exploration of the Construction Ideas for English Teaching Resource Libraries in Higher Vocational Education under the Background of Digitalization.

Huazhang, 2023, (08): 31-33.
[4] Wu Jiaqing. The Construction and Application of English Teaching Resource Database in Vocational colleges. Journal of Taiyuan City Vocational and Technical College, 2022, (06): 149-152.
[5] Chen Duanchan. Exploration of the Development of Internet+ Blended Teaching Resources for Vocational College English. Journal of Multimedia and Network Teaching in China (Mid-Monthly), 2022, (05): 21-24.
[6] Chen Guomin, Liu Pinxi, Chen Qinlan. Investigation of the Demand for Digital Teaching Resources in Higher Vocational College English Courses. Educational Observation, 2021, 10(30): 1-4.
[7] Hui Jianni, and Qi Xiaojuan. Sharing High-Quality Teaching Resources for Vocational College English under the Perspective of 5G. Western Quality Education, 2021, 7(22): 129-130.
[8] Yan Yijing. Research on the Application of AI Learning Apps in Blended English Teaching in Higher Vocational Education. Overseas English, 2023, (02): 235-237+240.
[9] Chen Xiaohua. Construction and Practice of Smart English Classrooms in Higher Vocational Education Based on Interactive Teaching Platforms. English Square, 2024, (31): 116-120.
[10] Xing Qiaolian. Research on the Innovative Application of Artificial Intelligence Voice Technology in English Listening Instruction in Vocational colleges under the Background of New Productive Forces. Journal of Multimedia and Network Teaching in China (Mid-Monthly), 2024, (10): 5-8.

