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Evaluation and Improvement Strategies of Teachers' Information Technology Teaching Ability Based on Data Mining



Abstract: - The rapid evolution of emerging technologies such as the Internet of Things, big data analytics, and next-generation artificial intelligence has propelled education through the ranks to new heights. To promote the development of digital education in an all-round way and build a learning country under the strategic action of digital education in China, it is necessary to objectively and accurately evaluate the information-based teaching ability of college teachers. This paper takes the evaluation of teachers' information-based teaching ability and the construction of promotion strategies as the research object, introduces the composition of teachers' information-based teaching ability in detail, designs the evaluation index system of teachers' information-based teaching ability from the perspective of educational digital strategic action, and constructs the promotion strategies of teachers' information-based teaching ability based on the case study of teaching ability evaluation. The constructed evaluation index of teachers' informatization teaching ability has strong maneuverability and the evaluation results are objective and accurate, which can be used as an evaluation model in the construction of teachers' informatization teaching ability in colleges and universities and provide practical guidance for improving teachers' informatization teaching ability in colleges and universities.

Keywords: Data Mining, Teachers' Information Teaching Ability, Improvement of Information-based Teaching Ability.

I. INTRODUCTION

Artificial intelligence is a computer technology that simulates human intelligence. Through multiple stages of development, it has gradually evolved from rule-based expert systems to deep learning based on data and algorithms. Artificial intelligence has been widely applied and deeply influenced in fields such as healthcare, education, art, and gaming. Education, as an important and sensitive field, is directly related to human knowledge, skills, values, and future development [1]. In the era of big data, data mining technology, as a technique of data processing, can be applied to the development and enhancement of university faculty's digital teaching capabilities. Not only does it enable the intelligent and wise evaluation of these capabilities but also conjoins implicit educational assessment objectives with the overt ones, thereby enhancing the efficacy in monitoring the digital literacy of university educators. In January 2022, the State issues "The National Development Plan for Digital Economic Progress in the 'Fifth Three-Year Plan'," wherein it proposes to advance deeply the evolution of intelligent education. Furthermore, at the National Education Work Conference, it articulated more emphatically the national educational digital strategy action. As 2022 marks the inaugural year of this strategic campaign, it underscores the shift in the technological integration within Chinese basic education from mere application to profound immersion. The strategy and actions of a year-long layout have now been culminated in visible results, as we analyze the profound impact of the educational digitalization initiative's future implementation, realizing that the cultivation of university teachers' capabilities in informatized pedagogy shall emerge as a pivotal task in propelling China's digital economy and the execution of the educational digitalization strategy [2]. The advent of artificial intelligence has ushered in a new era of possibility within the realm of education, giving rise to innovative and applied applications of generative AI that proffer an array of novel avenues for teaching and learning. Yet, we must also confront the potential issues brought about by the advent of generative AI [3]. The current university's era of constructing an informatized pedagogical capability is marred by a pervasive lapse in the comprehensive evaluation system for such capabilities, resulting in a deficiency in direction and practical safeguards for the elevation of teachers' digital pedagogical proficiency. The subsequent articles will delve into the assessment of the educational digitalization strategy's impact on the ability of teachers to teach informatively, combining case studies

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of teacher digital proficiency evaluation, to construct strategies for the enhancement and cultivation of university faculty members' e-skill development.

II. THE COMPOSITION OF TEACHERS' INFORMATION TECHNOLOGY TEACHING ABILITIES

At present, within the academic community, there is a lack of a unified concept regarding the composition of teachers' informatized instructive abilities. However, current research concurs that such abilities must be segmented from an educational perspective, and subdivided into diverse tiers, including design, operation, management, and evaluation [4]. Some academic researchers have even elevated the role of communicative skills to the framework of teacherial informatized pedagogical competencies, positing that with the advent of the informatized teaching model, the traditional classroom setting is subverted, thereby heralding the gradual obsolescence of conventional communication methods within these settings. This necessitates teachers to construct new methods of classroom communication from an perspective of the application of informational technology. When evaluating the informatization capabilities of teachers, it is imperative to include classroom communication within the assessment [5]. Taking into account the extant academic research perspectives, this paper provides an definitions of the components that underlie the digitalization of teaching within the educational sector. This encompasses the capacity to employ information technology in educational instruction, the acquisition and transfer of informational instructional resources, as well as the innovation of teaching models supported by educational technology [6]. Under the aegis of the digitalization strategy in education, the construction of teachers' informatized pedagogical capabilities has been propelled to new heights. Not only must they adeptly harness fundamental informational technologies and integrate resources to cater to the educational demands of classroom teaching, but also they must continually bolster their capacity to engender efficient academic settings for students, thereby elevating the comprehensive utilization of information technology within the classroom setting.

III. THE CONSTRUCTION OF A COMPREHENSIVE EVALUATION FRAMEWORK FOR THE INFORMATIONIZED TEACHING CAPABILITIES OF EDUCATORS IS ESSENTIAL

A. *The Principles for Constructing the Evaluation Index System of Teachers' Information Technology Teaching Abilities*

1) *Principle of scientific nature:* When evaluating the informatization proficiency of educators in university teaching, one must adhere to the principles of scientific accuracy, capable of systematically and objectively reflecting the mastery of technological tools within the academic sphere. Moreover, the designed evaluation system for teaching informatization capabilities must conform to the objective needs of teacher-based digitalization capacity development amidst the implementation of an education digitization strategy. Following the initiation of China's digital education strategy, the nation has ascended to the position of world's premier educational and instructional repository, while also charting a path for the integration of informational technology in supporting teacher education reform. In the future, the ability of teachers to utilize information technology in education will continue to be elevated [7]. In the construction of the evaluation framework for the informatized pedagogical capabilities of teachers, the principle of scientific methodology enables the system to conform to the developmental needs of future educators' digital literacy while concurrently propelling the continuous refinement and enhancement of metrics for evaluating teacher technological pedagogy.

2) *Integrity principle:* Under the aegis of the digitalization strategy for education, a comprehensive and dynamic evaluation framework for assessing the informatization capabilities of teachers in educational instruction is erected, rather than targeting a singular technological tool for the teacher's pedagogical utilization. It encompasses an overall assessment from the perspective of the evolution of information technology, capable of satisfying the practical requirements for various disciplines and diverse classroom settings [8]. Therefore, in the construction. The evaluation metrics for the teacher's informatized instructional capabilities under the digitalization strategy of educational institutions should adhere to the principle of wholeness, able to thoroughly manifest the information abilities of each measure in the construction of teaching models. From the perspective of professional progression, construct an integrated framework for educational assessment with aim and direction, thereby generating an organic evaluation scheme.

3) *Practical principle:* Under the aegis of the digitalization of educational strategy, the assessment of a teacher's capacity to utilize information technology in teaching ultimately must converge on practical application. Although a systematic and comprehensive assessment criteria for informatized teaching capabilities must be constructed on the theoretical plane, the ultimate functioning of the evaluation system requires the integration with the classroom settings of teachers, providing feedback on their educational processes [9]. Therefore, the evaluation framework

constructed must adhere to the principle of practicality. It must not only systematically and comprehensively reflect from a theoretical standpoint but also conform to the actual state of teacher informatization capacity development under the aegis of educational digitalization strategic actions. Determine whether the evaluation criteria for the informatized teaching capability of educators can be executed and carried out, and whether they are capable of systematically and objectively assessing the technological application capabilities of educators within a pedagogical model.

4) *The operability principle:* In constructing the evaluation system for the informatized instructional capabilities of teachers, each criterion is primarily derived from the daily teaching activities, validated in practice through the scientific selection of indicators. Therefore, the evaluation metrics constructed must adhere to the principle of operability, capable of quantitatively assessing and truly reflective of the teachers' informationized instructive capabilities within the classroom setting. In the construction of the evaluation system, one must avoid issues that are excessively complex and fail to align with the existing classroom milieu, thus resulting in a lack of operability. The operability principle primarily manifests through the aspects of quantifiable, visualisable, and observable, and also serves as a pioneering criterion in the construction of the teacher's informatized educational capability evaluation system. Prior to the formation of the evaluation system, one must adhere to the operability principle to filter the evaluation indicators, thus satisfying the evaluation demands for the development of university teachers' informatized teaching capabilities [10].

B. Constructing the Evaluating System of Teachers' Informationized Teaching Capacities Under the Strategy of Educational Digitalization.

In the construction of the evaluation system for the teachers' informatized pedagogical capabilities under the aegis of the implementation of an educational digitalization strategy, this paper delineates a triadic framework for assessment encompassing the design of educational scenarios information context, the execution of informatized teaching, and the introspection on the process. See Figure 1. The triadic dimensions serve as the primary indicators, each pair of which is accompanied by three secondary indicators, collectively constituting the comprehensive framework for evaluating the informatization capabilities of teachers.

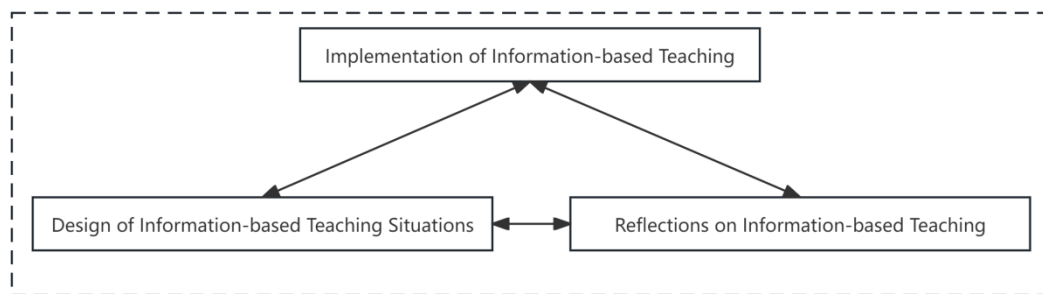


Figure 1: The Evaluation System for Teachers' Informationized Teaching Abilities

Explain the primary indicators of the assessment for the informatization proficiency of teachers, constitute a consortium of nine sub-indicators encompassing information acquisition skills, information processing and refinement capabilities, and the ability to cultivate an informatized educational milieu, among others. Following establishing the objectives of teacher informatization proficiency evaluation, we devise a comprehensive evaluative framework that encapsulates aspects such as instructional design guidance, implementation, and reflective practice, culminating in a lifelong teacher evaluation system for informatized teaching capability, detailed in Table 1.

Table 1: Layering of Teachers' Informationized Teaching Capacity Assessment Indicators

Target Layer	Primary Indicator	Secondary Indicator
Evaluation of Teachers' Information Technology Teaching Ability	Design of Information-based Teaching Situations	Information acquisition capability
		Information Processing and Handling
		Informational Scenario Creation
	Implementation of Information-based Teaching	Inter-teacher collaboration capability
		Interpersonal collaboration between teachers and students
		Classroom Informationization Interactive Capability
	Reflections on Information-based Teaching	Status of Achieving Teaching Objectives in Classroom Instruction
		Student's Informational Interactive Participation Situation
		The ability to integrate information-based teaching with traditional teaching

1) *Design of information-based teaching situations:* The proficiency of teachers in designing informatized educational scenarios encompasses three segments: the acquisition of pre-classroom information, the processing and refining of informatized instructional resources, and the creation of an informatized educational setting. By employing these three sub-criteria to elucidate informatized educational scenarios, one can objectively reflect the technological application acumen of teachers during the pre-teaching phase. Under the aegis of the digitalization strategy executed and deployed by China's educational institutions, the pedagogical approach of efficient classrooms has undergone a marked shift, progressively transitioning from its traditional singular offline mode to the development of hybrid teaching methods. Teachers are no longer confined to a singular syllabus in their pre-class preparation; instead, they may harness informational technology to augment the scope of their educational resource search. Therefore, in evaluating the informatization capabilities of educators, a design criterion for the virtual teaching scene during the pre-classroom preparation phase has been selected. The creation of informatized scenarios within the second-level indicators reflects the teacher's skill in integrating technological resources with traditional educational environments. Through the establishment of such scenarios, teachers demonstrate their proficiency in managing and harnessing information technology, as well as their ability to reconceptualize and innovate under the principles of technological integration in education.

2) *Implementation of information-based teaching:* Under the aegis of the digitalization of educational strategy, the construction of teachers' informatized pedagogical capabilities has subverted the traditional conceptions of education. A myriad of teaching innovations revolving around the application of informational technology has not only enriched the methods of classroom instruction but also precipitated a revolutionary shift in the execution of classroom teaching. Teachers have lost their dominion over the classroom, and students have become no longer passive recipients of instruction but active participants in an egalitarian state of learning. The proficiency of a teacher in the implementation of informatized education directly impacts the construction of an integrated classroom and the execution of educational tasks within the classroom. Some educators are excessively focused on the construction of informatization capabilities, with a deficiency in collaboration among peers that leads to the difficulty in sharing university information resources. This not only curtails the development of teachers' informatized instructional abilities but also impacts the enhancement of overall quality of faculty teams at universities [11]. The advent of the informatized instructional model not only symbolizes the collaboration among educators but also portrays the interplay and symbiotic relationship between teachers and students within the classroom setting. Therefore, in the establishment of the second-level indicator, the proficiency in the implementation of informatized education has been selected as the evaluation dimension. The three sub-indicators for this criterion are the collaborative capacity between teachers, the collaborative capacity between teachers and students, and the interactive capability within the classroom's informatization.

3) *Reflections on information-based teaching:* After the design and implementation of an informatized pedagogical model, a comprehensive evaluation of overall teaching capabilities necessitates the incorporation of a final phase: the reflectiveteaching cycle. Reflecting upon the innovation of teaching models through informatization provides a profound insight into the inadequacies inherent in current educational constructs, as well as those aspects that can be optimized regarding the application of technological advancements. This enhanced understanding will also ensure more comprehensive preparation for ensuing instruction. Therefore, the selection of informatized pedagogical reflection capability as the third tier of the evaluation for teachers' digital pedagogy competence, encompassing sub-criteria such as the achievement of academic objectives in classroom settings, students' engagement in cybernetic interactions, and the capacity to integrate information technology into both traditional and modern pedagogical approaches. Ensure the full integration of technological capabilities into the assessment of teachers' informatized instructional abilities and into the actual circumstances of classroom instruction. Should a lack of the ability to evaluate the capacity for reflection on educational practice be present, then the informatized pedagogical model executed shall be disconnected from the student's central role in learning. Not only would the efficacy of the utilization of informational technology be diminished, but it also precipitates noxious consequences—the absence of innovation in classroom instruction [12].

IV. THE APPLICATION OF THE EVALUATIVE INDEX SYSTEM FOR THE ASSESSMENT OF TEACHERS' INFORMATIONIZED TEACHING ABILITY

In the exercise and validation of the evaluation indicators for the informatized teaching proficiency of educators, a case study was conducted among five dedicated faculty members at a university chosen randomly. To ensure the fairness and objectivity of the findings, a sample consisting of lecturers, associate professors, and professors with different professional standing was selected, encompassing a range of academic qualifications from doctorates to

master’s degrees across various disciplines, including Electronic Information Engineering and Computer Science and Technology. These two majors place high demands on the ability of teachers to teach in an informatized setting; thus, the survey results are more representative, and the basic demographics of the sampled teachers are presented in Table 2.

Table 2: Basic Information of Sample Teachers

Teachers	Age	Gender	Title	Degree	Major
Teacher A	35	M	A.P.	Ph.D	EIE
Teacher B	32	F	Lect.	M.A.	EIE
Teacher C	33	F	Lect.	M.A.	CST
Teacher D	38	F	Prof.	Ph.D	CST
Teacher E	41	M	Prof.	Ph.D	CST

Combining the construction method of teacher’s information technology teaching ability evaluation indicators in Table 1, design a scoring table for teacher’s information technology teaching ability. Since the most critical aspect in the evaluation of teachers’ information technology teaching ability is the implementation of information technology-based teaching, the score distribution for this section is set at 40 points. The scores for Information Technology-Integrated Teaching Scenario Design and Information Technology-Integrated Teaching Reflection are each allocated 30 points. Among these, within the implementation of information technology teaching, the collaborative ability between teachers and students and the classroom information technology interaction ability are each assigned a value of 15 points. For all other secondary indicators, a score of 10 points is designated in the scoring distribution design. The Teacher’s Information Technology Teaching Ability Scoring Sheet can be found in Table 3.

Table 3: Teacher’s Informational Teaching Ability Evaluation Sheet

Score	Scored Metrics	Metric Breakdown	Total Score
30	Design of Information-based Teaching Situations	Information acquisition capability(10)	
		Information Processing and Handling(10)	
		Informational Scenario Creation(10)	
40	Implementation of Information-based Teaching	Inter-teacher collaboration capability(10)	
		Interpersonal collaboration between teachers and students(15)	
		Classroom Informationization Interactive Capability(15)	
30	Reflections on Information-based Teaching	Status of Achieving Teaching Objectives in Classroom Instruction(10)	
		Student’s Informational Interactive Participation Situation(10)	
		The ability to integrate information-based teaching with traditional teaching(10)	
Signature of the judges			
Total Score			

Determine the hierarchical categories of teaching informatization proficiency, encompassing five tiers — ‘Extremely Poor, Poor, Moderate, Superior, and Outstanding’, with the corresponding rating range demarcated in Table 4. When evaluating teachers’ digital pedagogical capabilities, align the final aggregated scores with the rating scale’s divisible intervals, and perceiving that the criteria are met, achieve the level of certification for the teacher’s informatization pedagogy proficiency.

Table 4: Grading Standards for Teachers’ Information Technology Teaching Ability Scores

Extremely Poor	Poor	Moderate	Superior	Outstanding
<20 Scores	21—40 Scores	41—60 Scores	61—80 Scores	>81 Scores

Using the above-mentioned method for evaluating teachers’ information technology teaching abilities, after obtaining the total scores for each teacher’s information technology teaching ability based on the judges’ scores, the results of the evaluation for the information technology teaching abilities of the final five teachers were organized and presented in Table 5.

Table 5: Results of Teachers’ Information Technology Teaching Ability Scores

Teacher A	Teacher B	Teacher C	Teacher D	Teacher E
75	92	81	38	55
Superior	Outstanding	Superior	Poor	Moderate

In the evaluation results, teachers A, B, and C performed well in their information technology teaching abilities, whereas teachers D and E, both of whom hold professorial titles, scored relatively low in this aspect. Cross-referencing with Table 2 which presents the basic information of the sample teachers, it is found that teachers D and E are older than the other three teachers. By analyzing the actual situation, the reason for the lower scores in information technology teaching abilities may be related to the older age of these teachers, their inadequate awareness and application of information technology, and the lack of collaboration and interaction between professors like teachers D and E with younger teachers in daily teaching activities. This could lead to difficulties in improving their information technology teaching abilities.

V. TEACHER'S DIGITAL INSTRUCTION ENHANCEMENT STRATEGIES

A. *Form Concrete Understanding through Information-based Teaching Case Examples*

According to the analysis of teachers' information technology teaching ability evaluation results, currently most university faculty members possess basic IT teaching skills, and the IT equipment provided by universities in classrooms is relatively comprehensive. However, some older or highly qualified educators have yet to develop a concrete understanding of IT-based teaching. This mainly manifests as insufficient acceptance of IT teaching models and inadequate utilization of certain IT devices, which makes it challenging for these teachers to enhance their IT teaching abilities. To address this issue, one can construct IT teaching cases, aggregating outstanding IT teaching outcomes, and fully leveraging the dual roles of university teachers as educators and trainers. Provide excellent teaching cases to those with weaker IT teaching abilities [13], showcasing under the application of IT technology, design innovation, implementation innovation, and evaluation innovation in teaching models. This guides teachers in forming a concrete understanding of IT teaching ability development through observation and helps them grasp the entire process of IT teaching models and key control points in applying IT technology in teaching. In summarizing and organizing observation activities for IT teaching cases, consider whether the selected cases align with the current needs for educational model innovation and reform development in higher education institutions, avoiding selecting cases that are overly advanced and difficult to apply in everyday teaching. Simultaneously, ensure the innovative nature of the chosen IT teaching cases to stimulate teachers' awareness of utilizing IT technology to reconstruct classroom teaching in their daily work [14].

B. *Relying on Professional Development Activities to Construct an Experiential Environment*

Further enhancing teachers' information technology teaching abilities can involve creating an educational environment that provides opportunities for teachers to utilize and experience IT applications in the construction of an informational education pathway. Most higher education teachers do not inherently lack information technology teaching skills; rather, they harbor concerns that incorporating such technology may disrupt the teaching progress and the realization of classroom teaching objectives. By relying on professional development activities to construct an IT teaching experience environment within universities, teachers can accumulate experiences and discover patterns through these experiences, thus making their practical application of IT-based teaching models more seamless. Through regularly organizing teacher professional development workshops designed with IT integration, teachers can immerse themselves in an IT-oriented study environment where they can not only personally experience outstanding IT-based teaching models but also deepen their understanding of curriculum upgrading design through contact with IT technologies. Moreover, higher education institutions can periodically host seminars on IT-assisted teaching, inviting teachers with high scores in IT teaching ability to serve as trainers [15], sharing their experiences and exchanging ideas about IT teaching. Additionally, forming specialized discussion teams to address the issues encountered by other educators during the reconstruction of IT-integrated classrooms can be beneficial.

C. *The Task-driven Approach for Constructing Informational Teaching Design*

In both traditional classrooms and informationalized classrooms, it's essential for teachers to design the class in advance and control the overall progress of teaching tasks. The realization of teaching objectives and the completion of teaching tasks are the core around which classroom design revolves; the application of information technology does not change the original teaching objectives in the curriculum outline but instead uses a more advanced informationalized approach to enhance students' overall learning efficiency in the class [16], assisting teachers in completing teaching tasks with higher efficiency and quality. To better assist teachers in understanding the informationalized teaching model and innovatively designing teaching content using information technology, an informationalized teaching design task-driven approach can be constructed, such as incorporating 'curriculum

ideological and political education' or 'labor education' themes. Under the guidance of experts or with peer collaboration, teachers can design informationalized teaching content around task-driven approaches. This not only allows them to integrate their theoretical knowledge comprehensively but also encourages exploration and transformation from theoretical knowledge to practical skills under the impetus of the given tasks. Under a shared task-driven theme, teachers can form a resource-sharing network for informationalized teaching. Through teamwork, they can enhance the effectiveness of information technology utilization and, in the process of building informationalized teaching capabilities, fully leverage each teacher's individual teaching strengths.

D. Improve the Self-assessment and Peer Assessment System for Information Technology Teaching Abilities

As a novel approach in the design and restructuring of teaching models, information technology has been relatively late in its promotion and application within basic education. Compared to traditional teaching models, the overall comprehensiveness of the evaluation system for information technology-based teaching models is inadequate, primarily manifested in biases within self-assessment and peer assessment frameworks [17]. Currently, in most universities, the evaluation of teachers' abilities in information technology-based teaching mainly relies on scoring by judges. In such an evaluation system, neither teachers' self-assessment nor peer evaluations among colleagues are adequately reflected. As front-line workers, teachers have the most intimate understanding of students' learning conditions, mastery of knowledge, and teacher-student interaction effectiveness in the classroom. Integrating teachers' self-assessment and peer assessment into the evaluation of their information technology teaching abilities can further enhance the evaluation effectiveness, enabling teachers to fully recognize their deficiencies in this area. Through peer review, it's possible to share experiences in information technology teaching, construct a comprehensive self-assessment and peer assessment system. In the context of evaluating IT teaching abilities, a more fitting evaluation scheme catering to students' learning needs can be developed from a practical classroom perspective. The main reason for the lack of a self-assessment and peer assessment system for teachers' information technology teaching abilities is due to insufficient supervision measures[18], making it difficult to ensure the objectivity of self-assessment and peer assessment results. To address this situation, information education platforms can be fully utilized to establish an online evaluation system. This ensures openness and timeliness in the evaluation results of teachers' IT teaching abilities while preventing overly subjective outcomes during the process of self-assessment and peer assessment.

E. Establish and Upgrade the Teaching Practice Environment for Teachers' Information Technology Integration

After college teachers form a comprehensive and systematic understanding of information-based teaching, the improvement and verification of their information-based teaching abilities need to be achieved through actual teaching practices. To achieve this, colleges can create and upgrade the information-based teaching practice environment for teachers, transform traditional classrooms, and facilitate teachers to design information-based teaching models within basic instruction. In the creation and upgrading of teachers' information-based teaching practice environment, it's crucial to base decisions on current teaching conditions and student development needs [19]. If excessively pursuing the advancement of the information-based teaching environment leads to substantial upfront costs in constructing and transforming information facilities, it easily results in technology overshadowing the core teaching process. This not only fails to fully utilize the practical environment to enhance classroom teaching effectiveness but may also consume excessive class time due to the complexity of information technology. Under the strategic action plan for educational digitalization, the enhancement of teachers' information-based teaching abilities primarily aims at cultivating high-quality talents needed for China's digital economic development. Colleges can also establish shared information-based teaching laboratories, scheduling and designing their use according to different professional teaching requirements. This way, they can ensure that teachers have access to a sufficiently advanced practice environment to support their improving information-based teaching abilities while also ensuring that the fundamental education work is carried out within familiar processes for both teachers and students.

VI. CONCLUSION

Under the aegis of the digitalization of educational strategy, the capacity of university instructors to utilize information technology in teaching should be dynamically evolving, Data mining technology is grounded in the summary and analysis of university faculty's informatized pedagogical capabilities, enabling its integration into the evaluation framework for university teachers' digital teaching proficiency. The crux of this process lies in clarifying the functional mechanisms of data mining technology, as well as establishing a database that

encompasses the digital pedagogy capabilities of university teachers, linking data cleansing, data synthesis, and data transformation. Concurrently, it propels the innovation of the evaluation paradigm for university teachers' digital pedagogy, refining the channels for data collection and achieving intelligent processing of information and data related to university teachers' digital teaching abilities. Conforming to the varying stages of our nation's educational digital transition and propelling the orientation towards the cultivation of educational talent. The dynamic wellspring of teaching informatized capabilities lies in the perpetual evolution of university IT and the refining of the teacher education evaluation system. In the construction of the evaluation system for university faculty in the context of educational digitalization, it is imperative to continuously refine from aspects such as teacher admission criteria, teacher training orientations, and teacher development strategies. This process will inform the formulation of complementary strategies for the university's educational digitalization initiative. Provide a theoretical foundation and practical guidance for the enhancement of informatized pedagogical capabilities among university educators.

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