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A Study on the Current State and Improvement Strategies of Teaching Methods for Teachers at Chongqing Business Vocational College

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ABSTRACT

Purpose: This paper explores the current state of teaching methodologies at Chongqing Business Vocational College, focusing on six critical areas: teachers' instructional design, teaching practices, knowledge acquisition through practical experience, classroom atmosphere, instructional resources and technology, and assessment methods. **Methods:** A mixed-methods approach was adopted, combining both quantitative and qualitative research techniques. For the quantitative aspect, descriptive analysis and t-tests were primarily employed. Cluster sampling was used to survey all 57 full-time teachers in the Artificial Intelligence department, alongside a questionnaire survey of 60 students, selected via stratified sampling. **Results:** The findings indicate that the lowest levels of satisfaction among both faculty and students were reported for the teaching environment atmosphere (M=3.97), followed by teaching tools (M=4.01), and teaching assessment methods (M=4.11). Qualitative findings, derived from focus interviews with various instructional administrators, suggest that the primary concern lies in the design of teaching and learning processes. **Recommendations:** The study suggests that the institution should continue to improve its teaching and learning infrastructure, creating an environment conducive to both teaching and learning. Additionally, comprehensive teacher training should be implemented to equip educators with the necessary skills to adapt to the evolving educational landscape, adopt innovative teaching methods, and address the diverse needs of students, thereby enhancing the overall quality of education. **Conclusion:** The study recommends a student-centred approach to teaching and advocates for the appropriate integration of information technologies, such as big data and artificial intelligence (AI), to facilitate teaching management and personalized learning.

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Introduction

The national initiative to "promote the digitalisation of education" has positioned digital education as a core element of national strategic development. Digital technology is now deeply embedded in economic, political, and educational systems, introducing novel concepts, approaches, and momentum (Chen et al., 2024), thereby guiding vocational education reform. Teaching, a complex fusion of art and science, relies heavily on methods that serve as tools for educators to realise their pedagogical aims. While instructional content remains relatively stable, teaching methods are inherently adaptable, influenced by variations in content, educators, and learners. These methods are pivotal for improving educational quality and directly impact talent cultivation. Effective teaching strategies ensure students are active participants, placing them at the centre of the learning experience (Qiquan, 2017). Preparing future educators to address instructional challenges through reflective, integrative, and innovative approaches is a key educational priority in the 21st century (González Pérez & Marrero-Galván, 2023). The integration of artificial intelligence in vocational education enables the identification of skill gaps, the development of targeted solutions, and the practical embedding of vocational tasks in teaching (Hui, 2020). Teachers' knowledge, skills, and attitudes significantly influence their capacity to adapt and enhance pedagogical practice.

Many educators in higher vocational colleges hold degrees from prestigious institutions and possess strong theoretical foundations, yet often lack practical industry experience. As a result, their teaching tends to prioritise theory over application, limiting hands-on training and impeding students' acquisition of practical skills. Multimedia tools can enhance student engagement and foster effective learning environments (Ismail et al., 2019). Moreover, teachers must be proficient in assessing higher-order thinking to apply diverse instructional strategies (M. Yusop et al., 2024). Existing research highlights six key areas of concern in teaching methods: instructional design, classroom activities, practice-based knowledge, learning atmosphere, instructional media, and assessment. Improving teaching practices requires ongoing teacher learning. This study investigates teaching methods at Chongqing Business Vocational College across these domains and proposes strategies to support professional development and improve instructional quality.

Literature Review

According to Lee Shulman's framework, Aydin et al. (2015) introduced pedagogical content knowledge (PCK) to the science education field. Shulman (1987, p. 8) defined PCK as the ability to organise and adapt subject content to suit learners' diverse needs within specific instructional contexts. Since then, interest in the role and development of PCK in science education has grown. Research highlights that novice teachers' professional and PCK development is especially critical during the early years of teaching. Hence, high-quality preservice education is essential to ensure new teachers enter the profession with classroom experience and comprehensive knowledge. Teachers must possess all PCK components—such as knowledge of learners and instructional strategies—and integrate them coherently for effective instruction. Dogan et al. (2020) further found that perceived technological competence significantly influences teachers' use of instructional and

application software. Therefore, professional development aimed at enhancing these skills may support more effective technology integration in teaching.

The study revealed direct and positive effects on teachers' confidence and comfort in using technology for instructional and application software. Furthermore, the level of support provided by technology specialists for the use of instructional software was found to exceed that for application software. The findings from the models in this research indicated that, firstly, teachers' perceptions of their technology skills in relation to both instructional and application software, and secondly, their beliefs regarding the usefulness of these technologies, were significant factors. The literature review on teaching methods in higher vocational education identifies several studies that focus on innovative pedagogical approaches in vocational colleges. Huo and Deng (2010) stress the importance of moving away from traditional teaching models, advocating for a "teacher-guidance & student-centred" approach to address challenges in higher vocational education. Xu et al. (2014) highlights the necessity for innovative methods in legal professions, such as case studies and practical teaching, to strengthen vocational characteristics and bridge the gap between theory and practice. In a similar vein, Gong and Ma (2015) discuss the cultivation of high-skilled talent in e-commerce by stimulating interest, changing teaching approaches, and refining instructional methods.

Liu and Niu (2014) emphasize the importance of school-enterprise cooperation in practical teaching within higher vocational institutions. Yuling (2017) explores the integration of digital multimedia technology into film and television media instruction to enhance traditional teaching approaches. Innovative modern apprenticeship models, particularly in fields like cartoon creation, are also proposed to introduce new methodologies in vocational education. Similarly, Zhao et al. (2020) examine practical teaching strategies in oil and gas storage and transportation technology under the framework of new engineering, aiming to improve instructional quality and effectiveness. Li (2020) examines the use of cloud computing to support teaching in higher vocational education, highlighting its role in adapting instructional practices to the digital era. The study underscores the value of innovative, student-centred methods, practical teaching, multimedia tools, and industry collaboration in improving educational quality. These approaches are vital for equipping students with skills for the modern workforce.

Despite this, there is a notable lack of research analysing teaching methods in specific vocational institutions. Existing studies often consider limited factors without conducting comprehensive or empirical investigations, leaving a gap in the literature. This study addresses that gap by examining teaching practices at Chongqing Business Vocational College, offering a basis for pedagogical reform and providing insights for similar institutions aiming to enhance instructional quality.

Methodology

To achieve the study's objectives, a descriptive-analytical methodology was employed. The descriptive approach involved collecting, classifying, and tabulating data to draw conclusions and generate generalisations about the phenomenon. A mixed-methods design was adopted, combining qualitative and quantitative techniques, with data analysed using Excel and SPSS. The study focused on teachers, students, and teaching managers at

Chongqing Commercial Vocational and Technical College, utilising both questionnaires and interviews as primary data collection tools.

Questionnaire Survey

A total of 600 full-time teachers were sampled from 10 colleges, with all 57 teachers from the Artificial Intelligence College participating in the questionnaire survey. For the student sample, stratified sampling was employed. A total of 60 students were selected from a population of 3,023, with 24 students from each of the 2021, 2022, and 2023 cohorts. The male-to-female ratio was 14:10, 10:9, and 9:8, respectively, in each grade. The students were randomly selected based on the distribution of students across grades and majors, maintaining the 1:50 ratio. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were calculated from the collected data. Additionally, t-tests, analysis of variance, regression tests, and regression analysis were performed.

Interview Survey

Five teaching managers from the institution were interviewed, comprising one dean of teaching, one Quality Management Office cadre, one school-level supervisor, one director of the Office of Academic Affairs, and one director of the Teaching and Research Office.

Results

The results in Table 1 indicate that the majority of respondents are female teachers (64.91%), with most holding master's degrees, while few possess doctoral qualifications. A significant proportion (82.46%) have less than 10 years of teaching experience, which aligns with the fact that 92.98% of the teachers are aged between 25 and 45. This suggests that the Artificial Intelligence College is predominantly staffed by young and middle-aged educators, with a notable presence of younger teachers. Teaching methods are generally singular in approach, with a strong emphasis on practical instruction. Moreover, the results presented in Table 2 indicate that male students constituted 55% of the sample in this study. The 2021 cohort was the largest, comprising 40% of the total sample. Additionally, students majoring in Digital Media Technology and Computer Network Technology represented 41.7% of the sample, based on the distribution of students across grades and fields of study (Meng & Sermsri, 2024).

Table 1

Basic information of teachers such as gender, education background and teaching experience (n=57)

Variable	Attribute	Frequency	Percentage
Gender	Man	20	35.09
	Woman	37	64.91
Academic degree	Undergraduate course	11	19.30
	master	43	75.44
	Doctor	3	5.26
Age bracket	Aged between 25 to 35 years	34	59.65
Length of service as a teacher	Aged between 36 to 45 years	19	33.33
Teaching method	Aged above 50 years	4	7.02
	Less than 5 years	20	35.09

Variable	Attribute	Frequency	Percentage
	5 to 10 years	27	47.37
	11-20 years	7	12.28
	20 years experience	3	5.26
	Method of lecture	18	31.58

Table 2

Basic information of students such as gender and grade (n=60)

Variable	Attribute	Frequency	Percentage
Gender	Man	33	55
	Woman	27	45
Grade	Class of 2021	24	40.0
	Class of 2022	19	31.7
	Class 2023	17	28.3
Major	Big data technology	9	15.0
	Computer network Technology	12	20.0
	software technology	4	6.7
	Embedded technology application	1	1.7
	Application of cloud computing technology	7	11.7
	Internet of things application technology	8	13.3
	Intelligent product development and application	6	10.0
	Digital media technology	13	21.7

Table 3 reveals that the Pearson correlation coefficient exceeds 0.5, suggesting a significant relationship between teaching quality and six factors: teaching design, teaching activities, knowledge gained through practical experience, teaching environment, teaching tools and media, and teaching evaluation. Furthermore, Table 4 demonstrates that the regression results for teaching design, teaching activities, and knowledge gained through practical experience significantly influence teaching quality ($F(3,113) = 219.592$, $p < 0.001$, $R^2 = 0.854$). Specifically, teaching design ($\beta = 0.169$, $t = 2.837$, $p = 0.005$), teaching activities ($\beta = 0.423$, $t = 7.321$, $p < 0.001$), and practical experience ($\beta = 0.413$, $t = 6.303$, $p < 0.001$) all show significant positive effects on teaching quality.

Table 3

Correlation Analysis of Teaching Quality

Variable	M	SD	1	2	3	4	5	6
Instructional Design	4.48	0.72	1					
Teaching activity	4.32	0.68	.702**	1				
Knowledge acquired through practical experience	4.19	0.808	.779**	.763**	1			
Climate of the teaching environment	3.97	0.858	.540**	.637**	.622**	1		
Medium of Instructional Tools	4.05	0.78	.463**	.622**	.576**	.816**	1	
Teaching Evaluation	4.11	0.74	.605**	.728**	.735**	.843**	.814**	1

Note: * *. The correlation is significant at the 0.01 level (two-tailed).

Table 4

Regression of Teaching Design, Teaching Activities and Knowledge Gained through Practical Experience to Teaching Quality

Variable	B	SE	β	t	P	VIF	F	R^2 (adj R^2)
(Constant)	5.882	2.955		1.990	.049		219.592	0.854
Instructional Design	2.76	0.973	0.169	2.837	.005	2.734		(0.850)
Teaching Activity	7.35	1.005	0.423	7.321	<.001	2.573		
Knowledge Acquired through Practical Experience	6.05	0.960	0.413	6.303	<.001	3.319		

The regression results presented in Table 5 indicate that the influence of teaching environment atmosphere, teaching tools and media, and teaching evaluation on teaching quality is statistically significant ($f(3,113) = 299.623$, $P < 0.001$, $R^2 = 0.858$). Specifically, the teaching environment atmosphere [$\beta = 0.267$, $t = 4.156$, $P < 0.001$], teaching tools and media [$\beta = 0.164$, $t = 2.764$, $P = 0.007$], and teaching evaluation [$\beta = 0.561$, $t = 8.768$, $P < 0.001$] all demonstrate significant positive relationships with teaching quality. The analysis primarily focused on descriptive statistics (Form 6) and independent samples t-tests (Form 7).

Table 5

Regression of Teaching Environment Atmosphere, Teaching Tools and Media, and Teaching Evaluation to Teaching Quality

Variable	B	SE	β	t	P	VIF	F	R^2 (adj R^2)
(Constant)	13.863	2.149		6.450	<.001		299.623	0.888
Climate of the teaching environment	3.680	0.886	0.267	4.156	<.001	4.183		（0.885）
Medium of Instructional Tools	2.487	0.900	0.164	2.764	.007	3.579		
Teaching Evaluation	8.955	1.021	0.561	8.768	<.001	4.146		

Moreover, Table 6 reveals that the standard deviation for all studied variables is below 1, indicating that the data is relatively accurate. The teaching environment atmosphere (M = 3.97) has the lowest average value, followed by teaching tools (M = 4.04). The order of variables from lowest to highest average is: Climate of the Teaching Environment < Medium of Instructional Tools < Teaching Evaluation < Knowledge Acquired through Practical Experience < Teaching Activity < Instructional Design. This suggests that both teachers and students at Chongqing Business Vocational College's Institute of Artificial Intelligence perceive significant deficiencies in the teaching environment, atmosphere, and instructional tools, which require improvement.

Table 6

Mean and standard deviation of questionnaire statements and research variables

Target		Teacher			Student		Gather		
Variable	**Problem**	**Mean**	**Standard deviation**	**Problem**	**Mean**	**Standard deviation**	**Mean (TD)**	**Mean (SD)**	**Mean value of both**
Instructional Design	TD1	4.58	.596	SD19	4.33	0.896	4.63	4.35	4.49
	TD2	4.67	.577	SD20	4.38	0.904			
	TD3	4.63	.587	SD21	4.33	0.914			
Teaching activity	TA4	4.35	.719	SA22	4.3	0.83	4.27	4.37	4.32
	TA5	4.16	.862	SA23	4.4	0.741			
	TA6	4.30	.755	SA24	4.42	0.809			
Knowledge acquired through practical experience	TK7	4.23	.866	SK25	4.43	0.745	4.23	4.14	4.19
	TK8	4.14	.743	SK26	4.25	0.932			
	TK9	4.32	.686	SK27	3.75	1.445			

Table 6 (continued)

Mean and standard deviation of questionnaire statements and research variables

Target		Teacher			Student		Gather		
Variable	**Problem**	**Mean**	**Standard deviation**	**Problem**	**Mean**	**Standard deviation**	**Mean (TD)**	**Mean (SD)**	**Mean value of both**
Climate of the teaching environment	TC10	3.39	.978	SC28	4.32	0.873	3.63	4.3	3.97
	TC11	3.40	.997	SC29	4.13	1.065			
	TC12	4.11	.699	SC30	4.45	0.832			
Medium of Instructional Tools	TM13	3.26	.973	SM31	4.13	1.016	3.73	4.34	4.04
	TM14	3.67	.913	SM32	4.45	0.79			
	TM15	4.26	.791	SM33	4.45	0.769			
Teaching Evaluation	TE16	4.04	.706	SE34	4.23	0.909	3.87	4.34	4.11
	TE17	4.09	.739	SE35	4.42	0.809			
	TE18	3.49	.947	SE36	4.37	0.802			

Table 7 indicates that there is no significant difference between teachers and students regarding teaching activities (sig = 0.41) and knowledge gained through practical experience (sig = 0.57), as both values exceed 0.05. However, instructional design shows a significant difference, with a significance level of sig = 0.04, which is less than 0.05. Additionally, significant differences were found in teaching environment, teaching tools and media, and teaching evaluation, where sig values were less than 0.01.

Table 7

Differences between Teachers and Students in Areas such as Instructional Design and Instructional Activities.

Variable	Personnel Category	M	SD	t	df	Sig.
Instructional Design	Teacher	4.63	0.50	2.13	94.99	0.04
	Student	4.35	0.86			
Teaching Activity	Teacher	4.27	0.64	(0.82)	115.00	0.41
	Student	4.37	0.71			
Knowledge Acquired through	Teacher	4.23	0.66	0.57	107.03	0.57
Practical Experience	Student	4.14	0.92			
Climate of the Teaching	Teacher	3.63	0.73	(4.60)	114.12	0.00
Environment	Student	4.30	0.84			
Medium of Instructional Tools	Teacher	3.73	0.67	(4.64)	114.29	0.00
	Student	4.34	0.76			
Teaching Evaluation	Teacher	3.87	0.66	(3.60)	115.00	0.00
	Student	4.34	0.74			

Based on the analysis of data from Form 6 and Form 7, it is clear that both faculty and students at Chongqing Business Vocational College express dissatisfaction with the teaching environment, instructional tools and media, and evaluation methods. These areas require significant improvement. Furthermore, the data presented in Tables 7 and Table 8 suggest that the teaching design at the college is insufficiently student-centred, lacking strategies for interaction and feedback. The course content does not adequately align with the skills needed for vocational roles, and information technology is neither effectively nor appropriately integrated into the teaching process.

Table 8

Interview Findings

Question	Summary from Interviews
1. What do you think are the main problems with the current teaching methods of the faculty of the college?	The teaching approach relies solely on lectures, lacks a sufficient blend of theory and practice, and does not adequately address the individual differences among students. Lack of information-based teaching methods; inadequate use of student-centred teaching strategies; lack of interaction and feedback; Single assessment method; Lack of awareness of innovative teaching.
2. Do you think the current practical curriculum in teachers' teaching meets the needs?	It is basically satisfied, but there is a disconnect between the content of some professional courses and the ability needs of vocational positions, and the effectiveness of practical courses needs to be improved.
3. What challenges do you think teachers face in terms of instructional design and curriculum design?	In terms of instructional design, the challenges are demand grasp and strategy design, content update and structure optimization, resource constraints and personalization challenges; Tailor teaching methods to meet the individual needs of students and apply varied instructional approaches; Stay current and continually enhance your professional skills. When it comes to curriculum design, the challenges include ensuring the curriculum is logically structured, updating and integrating content, implementing diverse teaching methods, and conducting evaluations that are scientifically sound.
4. How do you think of the use of interactive, discussion and multimedia tools in your teaching activities?	Multimedia tools are used to varying degrees, but the use is not sufficient, flexible enough, and sometimes there is a phenomenon of using for the sake of use, ignoring the goal of tool use. It is not sufficient and extensive, and only a small number of teachers pay attention to interactive teaching, and there are many traditional teaching modes.
5. Does the current teaching environment contribute to effective teaching? What could be improved?	It is necessary to improve the network conditions of classrooms and improve teachers' digital teaching literacy. Foster better communication between teachers and students, make the most of educational resources, and consider individual differences; Use teaching tools and resources wisely without becoming overly dependent on them.
6. Are you satisfied with the teaching tools and resources	Mostly satisfied. Updates and upgrades of tools, teacher training and support, student feedback and assessment, resource integration and optimization.

Question	Summary from Interviews
provided by the school? What do you think could be improved?	
7. Do you think the current way of teaching assessment is effective? Is it an accurate reflection of students' learning?	Mostly effective. At present, the school's teaching evaluation method basically implements the concept of student-oriented, but it is still necessary to improve the quality of students, take this method more seriously, and improve the efficiency of teaching evaluation data. It is necessary to optimize the evaluation indicators, enrich the evaluation methods, reduce the subjective influence, and strengthen the feedback mechanism to have a more comprehensive understanding of students' learning and promote the improvement of teaching effectiveness.
8. What are your specific suggestions for improving teachers' teaching methods?	1. Strengthen practical teaching. 2. Make full use of information technology such as artificial intelligence. 3. Update the teaching concept and pay attention to student feedback. 4. Strengthen cooperation with enterprises and introduce industry experts to participate in teaching; 5. Introduce more diversified teaching strategies, enrich teaching methods and teaching methods, improve teaching effectiveness, and continuously reflect on and improve teaching methods.
9. What teaching management measures do you think can further improve teachers' teaching ability and teaching quality?	1. Enhance the development of educators and elevate their professional standards through ongoing learning and training, while also creating records of teacher growth. 2. Refine the teaching management and evaluation frameworks by establishing a comprehensive management system and a scientific evaluation method. 3. Improve classroom teaching management and foster innovation by optimizing classroom teaching strategies and reinforcing classroom oversight. 4. Encourage collaboration and interaction among educators, engage in teaching and research initiatives, and set up a system for mentorship and leadership among teachers. 5. Pay attention to student feedback and participation, establish a student feedback mechanism, and encourage students to participate in teaching

Discussion

The study's findings highlight several areas requiring improvement at Chongqing Business College, particularly in instructional design, the teaching environment, teaching tools, and evaluation methods. The need to enhance the atmosphere of the teaching environment, alongside the tools and media used for teaching, is particularly urgent. Additionally, the significance of improving instructional design aligns with previous research (Alhazmi, 2023). Leaders, educators, and administrators must focus on implementing strategies that improve facilities, resources, and teaching methods to promote academic success and align with the institution's goals. The integration of modern technologies, such as AI, big data, and cloud platforms, plays a vital role in reforming vocational education, encouraging continuous educational updates, and fostering better teaching practices. Furthermore, it is crucial for experienced teachers to adapt their roles, embrace new technological teaching tools, and redefine their pedagogical approaches.

The findings of Zulkifli et al. (2022) corroborate this observation, as the research highlighted that educators frequently rely on the traditional "chalk and talk" lecture method in classrooms. To address this, it is crucial to encourage teachers to diversify their instructional strategies, adopting student-centred teaching techniques and incorporating technology to actively engage students in the learning process. It is recommended that the Ministry of Education, through the Technical and Vocational Education Division, provide training on 21st-century teaching methods for vocational college instructors and ensure that all vocational colleges are equipped with comprehensive information and communication technology infrastructure to enhance teaching practices.

To improve the quality of teaching, this study investigates the current teaching methods employed by instructors at Chongqing Business Vocational College, identifying areas in need of improvement, particularly in relation to the teaching environment, instructional tools and media, teaching approaches, and assessment methods. A mixed-methods approach was adopted, incorporating both quantitative and qualitative research methods. Descriptive analysis and t-tests were applied for the quantitative analysis, with a questionnaire survey used to collect data. The results were analysed using the SPSS programme, revealing several key findings. One of the most significant results pertains to the mean values of teacher and student satisfaction. The mean value for teaching environment atmosphere (M = 3.97) was the lowest, followed by teaching tools (M = 4.01) and teaching assessment (M = 4.11). The qualitative research involved interviews with teaching administrators at various levels of the institution, uncovering issues primarily related to the design of teaching and learning.

It is recommended that Chongqing Business Vocational College enhance its teaching facilities to create a conducive learning environment for both teachers and students. Effective learning is supported by well-equipped facilities that help achieve educational goals. The application of diverse and dynamic teaching methods, such as open, interactive, and multi-directional communication models, will also enrich the teaching and learning experience. Teachers should adapt their methods to meet the laws of teaching, aligning them with the content, objectives, and student needs. Moving away from traditional passive learning towards an active, application-based learning environment is essential for fostering critical thinking and innovation. As highlighted by Khan et al. (2024), the

improvement of educational quality requires continuous teacher training to equip them with the skills needed to adopt innovative methodologies and meet diverse student needs.

Turaevich (2021) emphasized that new pedagogical technologies must focus on student personality development, with both the teacher and student as central figures in the educational process. High-quality interactions between the two, aligned with contemporary and national standards, are essential. The use of innovative and information technologies, such as big data and artificial intelligence (AI), in education enables greater student engagement and personalized learning. Adopting a student-centred approach and integrating these technologies into management and educational practices will significantly enhance the teaching and learning experience.

Recent emphasis has been placed on the relationship between teaching strategies, student engagement, and teacher self-concept in education. Han (2021) argues that effective teaching strategies can significantly influence student engagement, which, in turn, affects teachers' perceptions of their own effectiveness. Encouraging motivation and support for student learning is essential in this dynamic. Furthermore, the study of educational research methodologies is continuously evolving. Matos et al. (2023) highlight the importance of innovative research methods in education. Their findings suggest that diverse methodologies can be highly beneficial for teaching and deepening the learning process. The integration of active teaching methods and ICT in primary education has proven advantageous. According to Garzon and Inga (2023), these approaches not only enhance knowledge acquisition but also foster the essential skills needed by 21st-century learners. This trend of leveraging technology to create interactive and adaptive learning environments has prompted a re-evaluation of strategies and support systems that promote the development of these skills. Zamiri and Esmaeili (2024) conducted a systematic review focusing on various methodologies used to nurture a collaborative learning environment. Their study emphasizes the importance of empowering both educators and learners, ensuring sustained engagement, and highlights the value of these practices for fostering a productive learning community.

Educational psychodrama has provided innovative insights into understanding learning processes within universities. According to Maya and Maraver (2020), this approach enhances student engagement and improves learning outcomes, highlighting the need for educational institutions to adopt teaching practices that resonate with various learner types. With the rise of advanced technologies such as ChatGPT, the educational community has turned its focus to understanding their impact on teaching practices. Ali et al. (2024) conducted a systematic review, revealing both the benefits and challenges of using AI tools in education. While technology can offer personalized learning experiences, institutions must address ethical and pedagogical concerns to ensure its effective integration. Venkatraman et al. (2022) further advocate for an agile educational model that combines project-based learning with strategies that develop Higher-Order Thinking Skills (HOTS). They emphasise the importance of active student involvement in achieving the goals of Educational 4.0 through adaptive teaching methods tailored to individual learning needs.

Educators in higher education encounter various challenges when employing traditional teaching methods, as noted by Bidabadi et al. (2016). Recognising these obstacles is crucial for academic institutions and policymakers to enhance educational

standards through improved practices. Research by Qenaat et al. (2025) illustrates how technological integration in development economics can reveal social and economic advancements driven by educational teaching methods. Their bibliometric analysis provides essential insights into how educational improvements can foster inclusive social progress. Gore (2021) investigates the current drive for improved teaching techniques, emphasising the ongoing need for innovation in educational practices. This research underscores the importance of educators adopting active learning strategies that contribute to student development (Hirsh et al., 2020). Modern education fundamentally relies on the interaction between diverse teaching approaches, creative instructional methods, and technological advancements. Recent findings in educational research highlight the need for varied techniques in teaching to create inclusive classrooms that actively engage students.

Conclusion

This study highlights key areas for improvement in the teaching methods at Chongqing Business Vocational College. Faculty and student satisfaction is lowest regarding classroom atmosphere, teaching tools, and assessment methods, with satisfaction scores of 3.97, 4.01, and 4.11 respectively. The findings stress the need for a student-centred approach, focusing on dynamic, supportive learning environments. The study also emphasises the need to upgrade teaching facilities, incorporate advanced technologies, and explore alternative methods to meet evolving educational demands. Teacher training programmes should be developed to equip educators with the skills to adapt to changing landscapes, addressing gaps in practical training. With the rise of digital technologies and AI, educators must adopt modern methods that reflect these advancements to improve teaching quality and better prepare students for the labour market. Engaging students in practical experiences is essential for developing professional skills. Addressing the identified gaps will ensure that the college's educational offerings align with current vocational education expectations, preparing students for the future.

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