

Embodied Cognition-Based Teaching and Students' Learning Outcomes: Evidence from the Rule of Law Chapter in Higher Vocational Ideological, Moral and Legal Education

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Abstract

With the continuous development of higher vocational education, improving the effectiveness of ideological, moral and legal education has become increasingly important. However, traditional teaching approaches often emphasize theoretical knowledge transmission, making it difficult for students to connect abstract legal concepts with real-life experiences and limiting their active engagement in learning. Based on embodied cognition theory, this study explores how embodied cognition-based teaching influences students' learning outcomes in the Rule of Law chapter of the Ideological, Moral and Legal Education course in higher vocational colleges. This study adopts a qualitative research approach and conducts semi-structured interviews with teachers and students to investigate the challenges and improvement strategies related to embodied cognition-based teaching. The findings identify five major challenges: difficulties in connecting legal knowledge with practical experiences, limited student engagement in traditional teaching environments, insufficient integration of multimodal learning activities, teachers' limited competence in implementing embodied teaching, and the lack of comprehensive evaluation mechanisms. Based on these challenges, this study proposes five strategies, including contextualized legal learning activities, student-centered interactive environments, multimodal teaching resource integration, teacher professional development, and comprehensive evaluation systems. This study contributes to existing research by extending the application of embodied cognition theory to higher vocational ideological and legal education. It also provides practical implications for improving teaching effectiveness by connecting students, learning environments, and knowledge construction through embodied experiences.

Keywords: Embodied Cognition-Based Teaching, Students' Learning Outcomes, Higher Vocational Education, Ideological and Moral Education, Rule of Law Education

Introduction

In recent years, improving the quality of ideological, moral and legal education has become an important task in higher vocational education. The Ideological, Moral and Legal Education course plays an essential role in cultivating students' legal awareness, moral values, and social responsibility. In China, higher vocational education has developed rapidly and has become an important component of the higher education system. According to the Ministry of Education, the number of students enrolled in higher vocational education continues to increase, demonstrating the importance of improving teaching quality and learning effectiveness in vocational colleges (Ministry of Education of the People's Republic of China, 2026). Meanwhile, national policies have emphasized the reform and innovation of ideological and political education courses, encouraging the integration of modern teaching approaches to improve educational effectiveness (Ministry of Education of the People's Republic of China, 2020). Therefore, exploring effective teaching approaches for enhancing students' learning outcomes in ideological and legal education has become increasingly significant.

However, traditional teaching approaches in ideological and moral education courses still mainly rely on theoretical explanation, textbook interpretation, and teacher-centered knowledge transmission. Such approaches may lead to insufficient student participation and difficulties in connecting abstract theoretical knowledge with real-life experiences. Existing research has pointed out that traditional educational models often involve problems such as one-way knowledge delivery, insufficient interaction, and separation between cognition and learning environments (Weina & Xiaolei, 2026). Although previous studies have explored innovative approaches such as digital teaching, gamification, and experiential learning, limited attention has been paid to how students' bodily experiences and environmental interactions influence their understanding and learning outcomes in ideological and legal education contexts.

Embodied cognition theory provides a potential theoretical perspective to address this research gap. Unlike traditional cognitive theories that view cognition as an independent mental process, embodied cognition emphasizes that cognition is shaped by the interaction between the body, environment, and cognitive processes. Recent studies indicate that cognition is not only supported by the body but also constructed through sensory-motor experiences and interactions with the surrounding environment (Kougioumtzis, 2026). In educational contexts, embodied cognition emphasizes the importance of physical participation, multimodal perception, and contextualized learning experiences. For example, previous research has demonstrated that embodied learning approaches incorporating gestures, visual representations, role-playing, spatial interaction, and digital resources can strengthen the connection between knowledge, action, emotion, and context (Zhao, 2026). Therefore, embodied cognition provides an appropriate theoretical foundation for explaining how teaching methods based on physical engagement can improve students' learning experiences.

Furthermore, students' learning outcomes are an important indicator for evaluating teaching effectiveness. Learning outcomes include not only academic achievement but also learning motivation, classroom engagement, knowledge understanding, and the ability to apply knowledge in practical situations. Previous studies have shown that innovative teaching

approaches can significantly influence students' learning performance and engagement by creating meaningful and interactive learning environments (Lampropoulos & Sidiropoulos, 2024). However, existing studies on learning outcomes have mainly focused on general educational contexts, while the application mechanism of embodied cognition-based teaching in ideological and legal education remains insufficiently explored. Particularly, how embodied experiences contribute to students' understanding of abstract legal concepts requires further investigation.

Therefore, this study aims to explore how students and teachers perceive embodied cognition-based teaching as supporting learning outcomes in the Rule of Law chapter of the Ideological, Moral and Legal Education course in higher vocational colleges. This study contributes to existing research in three aspects. First, it extends the application of embodied cognition theory to the field of ideological and legal education. Second, it provides a deeper understanding of how participants perceive embodied teaching approaches as supporting students' engagement and comprehension of abstract legal knowledge. Third, it offers practical strategies for improving teaching practices and promoting innovation in ideological and moral education in higher vocational colleges.

Literature Review

Higher Vocational Ideological, Moral and Legal Education

Higher vocational ideological, moral and legal education is an important component of China's higher education system and plays a significant role in cultivating students' moral awareness, legal literacy, and social responsibility. As a compulsory ideological and political course, the Ideological, Moral and Legal Education curriculum aims to guide students to understand social values, ethical principles, and legal knowledge, thereby supporting their personal development and future professional practices. In recent years, national education policies have emphasized the reform and innovation of ideological and political education courses, encouraging higher education institutions to improve teaching quality through diversified teaching approaches and modern educational technologies (Ministry of Education of the People's Republic of China, 2020). Meanwhile, the increasing scale of higher vocational education further highlights the importance of improving teaching effectiveness and student development outcomes (Ministry of Education of the People's Republic of China, 2026).

The Rule of Law chapter is a fundamental component of the Ideological, Moral and Legal Education course, as it helps students develop legal awareness and understand the relationship between individuals, society, and legal systems. However, legal knowledge is often characterized by abstract concepts, theoretical principles, and value-oriented content, which may create difficulties for vocational college students when connecting classroom knowledge with practical experiences. Traditional teaching approaches mainly emphasize teacher explanations, textbook interpretation, and theoretical knowledge transmission. Although such approaches can provide students with basic knowledge, they may limit students' active participation and reduce opportunities for experiential understanding. Previous research has indicated that traditional educational models often involve problems such as one-way knowledge transmission, insufficient interaction, and separation between learners and learning environments (Weina & Xiaolei, 2026).

To improve the effectiveness of ideological and legal education, researchers and educators have explored various innovative teaching approaches. For example, experiential learning and contextualized teaching emphasize the importance of connecting educational content with real-life situations. Studies have suggested that immersive learning environments can improve students' learning experiences by increasing contextual interaction, learner participation, and meaningful engagement (Weina & Xiaolei, 2026). In addition, practical reforms in ideological and political education have demonstrated that combining real-world environments with student participation can strengthen students' understanding and value recognition. For example, the concept of "embodied ideological and political education" emphasizes learning through physical participation, field observation, and direct experiences rather than relying only on theoretical explanation (Guangming Online, 2025). Similarly, practical teaching reforms based on industrial contexts highlight the importance of "physical presence", "interactive presence", and "meaningful presence" in improving ideological education effectiveness (China Education News Network, 2026).

Although previous studies have contributed to the innovation of higher vocational ideological and legal education, existing research has mainly focused on teaching reform strategies, technological integration, or practical activities. Limited attention has been paid to the cognitive mechanisms underlying how students construct knowledge through bodily experiences and environmental interactions. Therefore, further research is needed to explore theoretical approaches that can explain how students' physical engagement and contextual experiences influence learning effectiveness.

Students' Learning Outcomes

Students' learning outcomes are an important indicator for evaluating educational effectiveness and reflect the extent to which students achieve expected learning goals through educational activities. In higher education research, learning outcomes are not limited to academic achievement or examination performance but also include learning motivation, classroom engagement, knowledge understanding, practical application ability, and long-term learning development. Previous studies have emphasized that students' learning outcomes are closely related to educational quality, students' learning capabilities, lifelong learning willingness, and future professional development (Ventista & Brown, 2023).

In the context of higher vocational ideological and legal education, learning outcomes involve multiple dimensions. Students are expected not only to understand legal concepts but also to develop legal awareness, moral judgment, social responsibility, and the ability to apply legal knowledge in practical situations. However, traditional evaluation methods often focus mainly on knowledge acquisition and examination results, which may not fully reflect students' learning processes, emotional engagement, and practical understanding. Therefore, improving students' learning outcomes requires teaching approaches that encourage active participation and deeper knowledge construction.

Previous studies have explored the relationship between innovative teaching approaches and students' learning outcomes. For example, gamification-based learning research has demonstrated that interactive teaching approaches can improve students' motivation, engagement, academic performance, and learning experience compared with traditional teaching methods (Lampropoulos & Sidiropoulos, 2024). Similarly, research on virtual reality

training environments has shown that immersive and interactive experiences can better satisfy learners' cognitive needs, improve knowledge understanding, and enhance training effectiveness (Yang et al., 2024). These studies suggest that learning outcomes are influenced not only by teaching content but also by the interaction between learners, learning environments, and educational activities.

However, existing studies on learning outcomes have mainly focused on general academic subjects, digital learning environments, or technology-supported education. Limited research has examined how embodied experiences influence learning outcomes in ideological and legal education. Since legal education involves abstract concepts and value formation, students may need more contextualized and experiential learning processes to achieve meaningful understanding. Therefore, exploring embodied cognition-based teaching provides a new perspective for improving students' learning outcomes in higher vocational ideological and legal education.

Embodied Cognition-Based Teaching

Embodied cognition-based teaching originates from embodied cognition theory, which challenges traditional cognitive perspectives that consider cognition as an abstract information-processing activity independent of the body. Embodied cognition theory emphasizes that cognition emerges from the dynamic interaction between the body, environment, and cognitive processes. From this perspective, sensory-motor experiences are not simply supporting tools for learning but constitute an essential part of knowledge construction. Recent theoretical research has highlighted that cognition is shaped by the body systems that enable individuals to perceive and respond to their environments, indicating that bodily experiences play a fundamental role in human learning processes (Kougioumtzis, 2026).

Based on embodied cognition theory, embodied cognition-based teaching emphasizes physical participation, contextual learning, multimodal perception, and interaction between learners and environments. Previous studies have explored its applications in different educational fields. For example, research on second-language literature learning demonstrated that combining gestures, visual representations, audio narratives, role-playing, spatial interaction, and digital resources can strengthen connections between language, movement, emotion, and context (Zhao, 2026). Similarly, embodied approaches have been applied in mathematics education by integrating sensory-motor activities, multimodal interaction, and meaningful language use to improve accessibility, participation, and learning experiences (Nicolina et al., 2026).

Furthermore, embodied cognition-based teaching has also been explored in digital and technology-supported learning environments. Research on primary school digital learning environments suggested that incorporating body movement, gesture interaction, and spatial perception can promote deeper conceptual understanding and learner engagement (Nakolas et al., 2026). In addition, augmented reality-based learning research demonstrated that embodied learning experiences could improve students' understanding and long-term memory compared with purely abstract representations (Daefous, 2026). These findings indicate that embodied cognition-based teaching can transform learning from passive knowledge reception into active experiential construction.

In addition to improving student learning processes, embodied cognition-based teaching also provides implications for teacher development and teaching evaluation. Research on embodied cognition-based classroom evaluation models proposed that effective teaching evaluation should consider multiple dimensions, including contextual reconstruction, dynamic generation, mutual adaptation, embodied language, and perspective integration (Wu, 2026). Moreover, teacher training based on embodied cognition emphasizes the integration of body, reflection, interaction, and professional development, helping teachers develop more meaningful teaching practices (Cuccaro et al., 2025). Other studies have also explored the combination of embodied cognition and playful interaction, suggesting that adaptive and experiential learning environments can enhance learner engagement and educational effectiveness (Tu, 2023).

Although embodied cognition-based teaching has been widely explored in fields such as language learning, mathematics education, digital learning, and teacher development, its application in higher vocational ideological, moral and legal education remains limited. The Rule of Law chapter requires students to understand abstract concepts and develop value-based awareness, which makes embodied learning particularly relevant. Therefore, this study adopts embodied cognition-based teaching as the theoretical foundation to investigate how embodied learning experiences influence students' learning outcomes in higher vocational ideological and legal education.

Research Methods

Research Design

This study adopts a qualitative research approach to explore how embodied cognition-based teaching influences students' learning outcomes in the Rule of Law chapter of the Ideological, Moral and Legal Education course in higher vocational colleges. A qualitative approach was selected because the purpose of this study is not only to measure students' academic performance but also to understand the experiences, perceptions, and challenges associated with implementing embodied cognition-based teaching practices.

Semi-structured interviews were conducted to collect detailed information from participants regarding their experiences with ideological and legal education, perceptions of embodied learning activities, and views on factors influencing students' learning outcomes. This method allows participants to provide rich descriptions of teaching practices and learning experiences while enabling researchers to identify common themes related to challenges and improvement strategies.

Research Context and Participants

This study was conducted in higher vocational colleges where the Ideological, Moral and Legal Education course is implemented as an important compulsory course. The Rule of Law chapter was selected as the research context because legal knowledge contains many abstract concepts that require students to establish connections between theoretical understanding and practical situations.

The participants were selected using purposive sampling to ensure that they had relevant experiences related to ideological and legal education. The study involved 20 participants, including ideological and political education teachers and higher vocational students who had

participated in the Rule of Law chapter learning activities. The selection of higher vocational colleges as the research context is meaningful because vocational education emphasizes the connection between theoretical knowledge and practical application. Therefore, exploring embodied cognition-based teaching in this context can provide valuable insights into how experiential and contextualized learning approaches improve students' learning outcomes.

Data Collection

Data were collected through semi-structured interviews. The interview questions were developed based on the research framework, including three main dimensions: Higher vocational ideological, moral and legal education; Students' learning outcomes; Embodied cognition-based teaching.

The interviews focused on participants' perceptions of current teaching approaches, experiences with embodied learning activities, difficulties in improving learning outcomes, and suggestions for teaching improvement. Each interview lasted approximately 30–45 minutes. All interviews were recorded with participants' permission and transcribed for thematic analysis. The collected data were analyzed by identifying recurring concepts, patterns, and relationships related to embodied cognition-based teaching and students' learning outcomes.

Interview Questions

Table 1

Semi-Structured Interview Questions

Dimension	Interview Questions	Participants
Higher Vocational Ideological, Moral and Legal Education	1. What are the main characteristics and challenges of teaching the Rule of Law chapter in ideological and moral education courses?	Teachers & Students
Students' Learning Outcomes	2. How do current teaching approaches influence students' understanding, engagement, and application of legal knowledge?	Teachers & Students
Embodied Cognition-Based Teaching	3. Have you experienced teaching or learning activities involving physical participation, real-life situations, role-playing, or interactive experiences?	Teachers & Students
Challenges	4. What difficulties may occur when implementing embodied cognition-based teaching in higher vocational ideological and legal education?	Teachers
Suggestions	5. What strategies can improve the effectiveness of embodied cognition-based teaching and students' learning outcomes?	Teachers & Students

Data Analysis

The collected interview data were analyzed using thematic analysis. First, interview transcripts were carefully reviewed to identify meaningful statements related to embodied cognition-based teaching and learning outcomes. Second, similar concepts were grouped into broader themes, including teaching challenges, student engagement, learning experiences, and improvement strategies. Finally, the identified themes were connected with embodied cognition theory to explain how embodied teaching approaches influence students' learning outcomes.

Challenges

Difficulty in Connecting Abstract Legal Knowledge with Students' Real-Life Experiences

The first challenge identified from the interviews is the difficulty of connecting abstract legal knowledge with students' real-life experiences. According to the participants, the Rule of Law chapter in the Ideological, Moral and Legal Education course contains many theoretical concepts, legal principles, and value-oriented contents. Although students can understand basic definitions through textbook learning and teacher explanations, many students still experience difficulties in applying legal knowledge to practical situations. Teachers indicated that students often consider legal concepts as distant from their daily lives because classroom teaching provides limited opportunities for them to experience real legal situations.

This challenge reflects the limitations of traditional knowledge transmission approaches in ideological and legal education. From the perspective of embodied cognition, learning is not only a process of receiving abstract information but also requires interaction between learners, their bodies, and learning environments. When students lack contextual experiences and practical engagement, it becomes difficult for them to construct deeper understanding. Therefore, the absence of embodied learning experiences may reduce students' ability to transform legal knowledge from theoretical concepts into meaningful personal understanding.

Limited Student Engagement in Traditional Lecture-Based Teaching

The second challenge concerns the limited engagement of students in traditional lecture-based teaching environments. The interviews revealed that many students tend to passively receive information during ideological and legal education classes. Since teaching activities mainly depend on teacher explanations, PowerPoint presentations, and textbook content, students have fewer opportunities to participate actively, express opinions, or interact with learning materials. Some students reported that although they could remember certain legal concepts for examinations, they found it difficult to maintain long-term interest and apply the knowledge outside the classroom.

This challenge is consistent with previous research suggesting that traditional educational models often involve problems such as one-way communication, insufficient interaction, and separation between cognition and learning environments (Weina & Xiaolei, 2026). Embodied cognition-based teaching emphasizes that meaningful learning occurs through active participation and interaction. Therefore, insufficient student engagement represents an important barrier to improving learning outcomes in higher vocational ideological and legal education.

Insufficient Integration of Multimodal and Experiential Learning Activities

The third challenge is the insufficient integration of multimodal and experiential learning activities. Interview results indicated that although some teachers attempt to introduce videos, case discussions, and practical examples, these activities are not systematically integrated into the teaching process. In many cases, digital resources are only used as supplementary materials rather than becoming an essential part of students' learning experiences. As a result, students may still rely mainly on verbal explanations and textual information when learning legal concepts.

Embodied cognition-based teaching emphasizes the importance of multimodal perception, including visual, auditory, physical, and environmental experiences. Previous studies have demonstrated that combining gestures, visual representations, role-playing, spatial interaction, and digital resources can strengthen connections between knowledge, actions, emotions, and contexts (Zhao, 2026). However, the limited application of these approaches in ideological and legal education restricts opportunities for students to develop deeper understanding through embodied experiences.

Teachers' Limited Competence in Implementing Embodied Cognition-Based Teaching

The fourth challenge relates to teachers' limited competence in designing and implementing embodied cognition-based teaching activities. Interviews with teachers indicated that although educators recognize the importance of improving classroom interaction and student participation, many lack systematic knowledge of embodied cognition theory and practical experience in designing embodied learning activities. Some teachers expressed uncertainty about how to transform traditional theoretical teaching content into contextualized and experiential learning tasks.

The implementation of embodied cognition-based teaching requires teachers not only to understand theoretical principles but also to possess abilities in activity design, classroom organization, technology integration, and reflective teaching. Previous research on teacher development has highlighted that embodied approaches require teachers to integrate professional knowledge, interaction skills, and reflective practices to create meaningful learning experiences (Cuccaro et al., 2025). Therefore, insufficient teacher preparation remains a major challenge affecting the application of embodied cognition-based teaching in higher vocational ideological and legal education.

Lack of Comprehensive Evaluation Mechanisms for Embodied Learning Outcomes

The fifth challenge is the lack of comprehensive evaluation mechanisms for embodied learning outcomes. According to interview findings, current evaluation practices in ideological and legal education mainly focus on written examinations and knowledge recall. Although these approaches can measure students' understanding of theoretical concepts, they cannot fully evaluate students' participation, emotional engagement, practical application ability, and changes in legal awareness.

Embodied cognition-based teaching emphasizes learning processes involving interaction, experience, and knowledge construction. Therefore, traditional evaluation methods may not accurately reflect the effectiveness of embodied teaching approaches. Previous research has suggested that embodied classroom evaluation should consider multiple dimensions,

including contextual reconstruction, dynamic interaction, mutual adaptation, embodied language, and integrated perspectives (Wu, 2026). Without appropriate evaluation mechanisms, it is difficult to determine how embodied cognition-based teaching contributes to students' learning outcomes and to improve teaching practices effectively.

Suggestions

Developing Context-Based Legal Learning Activities to Enhance Embodied Experiences

To address the difficulty of connecting abstract legal knowledge with students' real-life experiences, higher vocational colleges should develop more contextualized legal learning activities based on embodied cognition principles. The Rule of Law chapter contains many abstract concepts, such as legal responsibility, citizens' rights, and social norms, which are difficult for students to fully understand through theoretical explanations alone. Therefore, teachers should create learning situations that allow students to experience, interpret, and apply legal knowledge through realistic contexts. For example, teachers can introduce real social cases, organize legal scenario simulations, and design role-playing activities to help students understand legal principles through direct participation.

Such contextualized learning activities can strengthen the relationship between students' bodily experiences, environmental situations, and knowledge construction. Previous research has indicated that embodied learning approaches combining role-playing, visual representation, spatial interaction, and contextual activities can enhance the connection between knowledge, action, emotion, and learning environments (Zhao, 2026). By transforming abstract legal concepts into meaningful experiences, students can develop deeper understanding and improve their ability to apply legal knowledge in practical situations.

Establishing Student-Centered Interactive Learning Environments

To overcome the limitation of insufficient student engagement in traditional lecture-based teaching, teachers should establish student-centered interactive learning environments. Traditional ideological and legal education often emphasizes teacher explanation and knowledge delivery, which may reduce students' opportunities to actively participate in classroom activities. Therefore, teaching should shift from a teacher-dominated model toward an interactive learning model in which students actively construct knowledge through discussion, cooperation, and reflection.

In practice, teachers can adopt strategies such as group discussions, legal debates, cooperative problem-solving, and classroom presentations. These activities encourage students to express opinions, exchange perspectives, and actively participate in the learning process. From the perspective of embodied cognition, learning occurs through continuous interaction between learners and their environments rather than passive information reception. Therefore, increasing students' participation can promote deeper cognitive engagement and improve learning outcomes. Previous studies have emphasized that immersive and interactive learning environments can enhance students' learning experiences by improving participation and contextual understanding (Weina & Xiaolei, 2026).

Integrating Multimodal Teaching Resources and Experiential Learning Approaches

To address the insufficient integration of multimodal and experiential learning activities, teachers should systematically incorporate diverse learning resources into ideological and legal education. Although digital technologies and multimedia materials have been increasingly used in education, they are sometimes applied only as supplementary tools rather than integrated components of learning activities. Therefore, teachers should design teaching processes that combine visual, auditory, physical, and interactive experiences.

For example, teachers can use legal case videos, virtual simulations, digital platforms, interactive scenarios, and practical investigations to create multimodal learning environments. These approaches allow students to obtain knowledge through multiple sensory channels and strengthen the connection between concepts and experiences. Research has demonstrated that embodied learning activities involving gestures, visual representations, audio resources, role-playing, and digital interaction can improve learners' understanding by connecting knowledge with actions and contexts (Zhao, 2026). In addition, studies on augmented reality-based learning have shown that embodied experiences can improve knowledge comprehension and long-term memory compared with purely abstract learning methods (Daefous, 2026). Therefore, integrating multimodal resources provides an effective pathway for improving students' learning outcomes.

Enhancing Teachers' Embodied Cognition-Based Teaching Competence

To solve the problem of teachers' insufficient ability to implement embodied cognition-based teaching, higher vocational colleges should strengthen professional development and teaching training programs. Although many teachers recognize the importance of improving classroom interaction, some lack systematic understanding of embodied cognition theory and practical experience in designing embodied learning activities. Therefore, teacher development should focus not only on theoretical knowledge but also on practical teaching design capabilities.

Training programs can include embodied cognition theory, experiential activity design, classroom interaction strategies, and digital technology application. Teachers should learn how to transform abstract ideological and legal concepts into contextualized learning tasks and meaningful student experiences. Previous research on teacher development has highlighted that embodied teaching requires the integration of professional knowledge, interaction ability, and reflective practice (Cuccaro et al., 2025). Furthermore, embodied cognition-based approaches can encourage teachers to rethink their roles from knowledge transmitters to learning environment designers. Through continuous professional development, teachers can better implement embodied cognition-based teaching and improve educational effectiveness.

Developing Comprehensive Evaluation Mechanisms for Embodied Learning Outcomes

To overcome the limitations of traditional evaluation methods, higher vocational colleges should establish comprehensive evaluation mechanisms that reflect the characteristics of embodied cognition-based teaching. Current evaluation practices in ideological and legal education mainly focus on written examinations and theoretical knowledge assessment. However, embodied teaching emphasizes learning processes, student participation, practical

application, and meaningful experiences, which cannot be fully captured through traditional assessments.

Therefore, evaluation systems should include multiple dimensions, such as knowledge understanding, classroom participation, practical problem-solving ability, emotional engagement, and legal awareness development. Teachers can combine traditional examinations with classroom observation, reflective reports, project-based assessment, and peer evaluation. Research on embodied cognition-based classroom evaluation models has suggested that effective evaluation should consider multiple dimensions, including contextual reconstruction, dynamic interaction, mutual adaptation, embodied language, and integrated perspectives (Wu, 2026). By developing comprehensive evaluation mechanisms, educators can better understand students' learning processes and continuously improve embodied cognition-based teaching practices.

Conclusions

This study explored the influence of embodied cognition-based teaching on students' learning outcomes in the Rule of Law chapter of the Ideological, Moral and Legal Education course in higher vocational colleges. Based on qualitative interviews and thematic analysis, this study identified the major challenges affecting the implementation of embodied cognition-based teaching and proposed corresponding strategies for improving teaching effectiveness. The findings indicate that although traditional teaching approaches can provide students with fundamental legal knowledge, limitations remain in connecting abstract legal concepts with students' real-life experiences, stimulating classroom engagement, integrating multimodal learning experiences, supporting teachers' embodied teaching competence, and evaluating learning outcomes comprehensively.

The study further demonstrates that embodied cognition-based teaching provides a valuable theoretical and practical approach for addressing these challenges. By emphasizing the interaction between students' bodies, learning environments, and cognitive processes, embodied teaching can transform ideological and legal education from passive knowledge transmission into active experiential learning. Through contextualized activities, interactive learning environments, multimodal resources, teacher professional development, and comprehensive evaluation mechanisms, students can achieve deeper understanding, stronger engagement, and improved ability to apply legal knowledge in practical contexts.

This study contributes to educational research in three ways. First, it extends the application of embodied cognition theory to the field of higher vocational ideological, moral and legal education, providing a new perspective for understanding how students construct knowledge through embodied experiences. Second, it enriches research on students' learning outcomes by highlighting the importance of physical participation, contextual interaction, and experiential learning processes. Third, it provides practical implications for teachers and educational institutions seeking to improve the effectiveness of ideological and legal education through innovative teaching approaches.

Despite these contributions, this study has several limitations. Since the research adopted a qualitative approach, the findings were based on participants' perceptions and experiences, which may limit the generalizability of the results. Future studies can further examine

embodied cognition-based teaching through larger samples, quantitative methods, or mixed research designs. In addition, future research may explore how different embodied teaching activities influence specific dimensions of students' learning outcomes, such as legal awareness, learning motivation, and practical application ability.

In conclusion, embodied cognition-based teaching provides a promising pathway for improving learning outcomes in higher vocational ideological, moral and legal education. By connecting knowledge, body, environment, and experience, this approach can support the transformation of abstract legal learning into meaningful educational experiences and contribute to the innovation and development of ideological and political education.

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