

# Research on the Evaluation System of Ideological and Political Education in Professional Courses Based on "OBE+CIPP" under the Background of Industry-Education Integration—Taking "Product Design Procedures and Methods" as an Example

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**Abstract:** *Based on the background of industry-education integration, this study explores the construction of the ideological and political education evaluation system for professional courses and its application in the course "Product Design Procedures and Methods" using the "OBE+CIPP" theoretical framework. Through an in-depth analysis of the integration needs between industry and education, combined with the "OBE" (Outcome-Based Education) and "CIPP" (Context, Input, Process, Product) evaluation models, a comprehensive and systematic ideological and political education evaluation system is constructed. Using "Product Design Procedures and Methods" as a case study, the aim is to improve the effectiveness of ideological and political education in professional courses and cultivate students' comprehensive literacy and sense of social responsibility.*

**Keywords:** *industry-education integration, OBE+CIPP, professional courses, ideological and political education evaluation, product design*

## 1. Introduction

With the development of society, the demands of the industry for college graduates are becoming increasingly complex. Graduates are not only required to possess professional knowledge and skills but also need to have certain ideological and political literacy. Industry-education integration has become one of the important paths to promote the development of higher education, and the construction of the ideological and political education evaluation system for professional courses is one of the keys to achieving industry-education integration. This study, guided by "OBE+CIPP" theory, aims to explore how to construct a scientifically reasonable ideological and political education evaluation system under the background of industry-education integration through the study of the course "Product Design Procedures and Methods", and provide theoretical and practical support for improving the comprehensive literacy and social adaptability of college graduates.

## 2. Introduction

### 2.1 Research Background

In today's society, the close integration of industry and education has become an important trend in the development of higher education. With the deepening of the concept of industry-education integration, universities are facing the challenge of cultivating professional talents with comprehensive literacy. To adapt to this change, we choose to study the course "Product Design Procedures and Methods" as a representative case. The demand of the industry for college graduates is no longer limited to professional skills but also includes ideological and political literacy. Therefore, a profound understanding of the background of industry-education integration is crucial for constructing an effective ideological and political education evaluation system.

### 2.2 Research Objectives and Significance

The purpose of this study is to explore how to construct an ideological and political education

evaluation system for professional courses based on "OBE+CIPP" under the background of industry-education integration, using the course "Product Design Procedures and Methods" as an example for empirical research. Through this study, we hope to deepen the integration understanding of ideological and political education and professional courses, and improve students' comprehensive literacy and sense of social responsibility. This has profound significance for promoting the development of higher education towards a direction closer to industrial needs.<sup>[1]</sup>

### ***2.3 Research Content and Methods***

The research will focus on constructing an ideological and political education evaluation system for professional courses based on "OBE+CIPP" and verify it through the example of "Product Design Procedures and Methods". The content includes the theoretical basis of industry-education integration, the comprehensive application of "OBE" and "CIPP" evaluation models, and the principles of constructing evaluation systems.<sup>[2]</sup> In terms of methods, empirical research will be adopted to deeply analyze the background and characteristics of the course, apply the evaluation system to assess actual teaching effectiveness, and comprehensively understand the feasibility and effectiveness of the evaluation system.

## **3. Construction of the Ideological and Political Education Evaluation System for Professional Courses under the Background of Industry-Education Integration**

### ***3.1 Theoretical Foundation of Industry-Education Integration***

Industry-education integration plays a critical role in the current higher education system and is an important educational concept. This section delves into the theoretical foundation of industry-education integration, clarifying its origins, development trajectory, and application in professional courses. Firstly, it traces the theoretical roots of industry-education integration, delving into its theoretical support in fields such as philosophy and education. Secondly, through empirical case analysis, it examines the practical application of industry-education integration in real educational scenarios, revealing its significance for professional courses.

At the philosophical level, the theoretical foundation of industry-education integration is rooted in a profound understanding of the interrelationship between education and social practice. This concept emphasizes that education should actively adapt to social needs, and both the industry and educational institutions should participate jointly in the entire process of talent cultivation. This theoretical foundation provides solid ideological support for industry-education integration.<sup>[3]</sup>

Through in-depth analysis of empirical cases, we can better understand how industry-education integration operates in actual education. These cases not only validate the feasibility of the theory but also provide us with valuable experience, offering practical guidance for applying the concept of industry-education integration to professional courses. The theoretical foundation of industry-education integration is not just conceptual support but also a proactive response to real-world needs.

### ***3.2 Overview of the "OBE" and "CIPP" Evaluation Models***

This section comprehensively introduces the "OBE" and "CIPP" evaluation models, providing theoretical support for constructing the ideological and political education evaluation system for professional courses.

Firstly, a detailed analysis of "OBE" is provided, clarifying its core elements of focus and its application in professional courses. OBE centers around students' actual behaviors and outcomes, emphasizing the cultivation of practical abilities and application skills. In professional courses, "OBE" focuses on achieving course objectives by clearly measuring students' performance to ensure that teaching achieves the desired outcomes. This model situates the design and evaluation of professional courses within the context of practical application, highlighting students' performance in practice.<sup>[4]</sup>

Subsequently, an overview of the "CIPP" evaluation model is presented, highlighting its four key dimensions in the evaluation system: Context, Input, Process, and Product. The CIPP model emphasizes evaluation across four aspects: context, input, process, and product, making the evaluation more comprehensive. In professional courses, "CIPP" provides a more comprehensive evaluation perspective by analyzing the background of course design, the quality of input, the execution of the

process, and the effectiveness of the output. This provides powerful tool support for constructing the ideological and political education evaluation system for professional courses.

The integrated application of these two evaluation models provides theoretical support for the construction of the evaluation system, enabling it to better address the ideological and political education needs in professional courses.

### ***3.3 Principles for Constructing the Ideological and Political Education Evaluation System for Professional Courses***

Under the framework of industry-education integration, constructing the ideological and political education evaluation system for professional courses requires adherence to a series of principles and guiding principles.

Firstly, it emphasizes being industry-driven to ensure that the evaluation system aligns with actual professional requirements. The construction of the evaluation system should be based on industry expectations for talents, with a deep understanding of industry development trends and demands, to ensure that the evaluation system accurately reflects the ideological and political literacy required by students in actual work. This principle will encourage the evaluation system to be more closely aligned with industrial realities, enabling graduates to better adapt to the professional environment.<sup>[5]</sup>

Secondly, it explores how to integrate the intrinsic connection between professional courses and ideological and political education on the basis of "OBE" and "CIPP" theories, achieving organic integration. By deeply integrating the characteristics of "OBE" focusing on practical ability cultivation and "CIPP" emphasizing comprehensive evaluation, ideological and political education in professional courses becomes more systematic and profound. This principle should be implemented in the evaluation system to ensure the organic unity of ideological and political education with professional courses, cultivating talents with more comprehensive literacy.

Finally, the principle of flexibility and sustainability is proposed to adapt to rapidly changing social demands and ensure the long-term effectiveness of the evaluation system. The design of the evaluation system should be flexible to adjust to the rapid changes in the social context. At the same time, the constructed evaluation system should be sustainable, providing long-term effective ideological and political evaluation support for professional courses to ensure their practical application value even during changes.

By adhering to these principles, the constructed ideological and political education evaluation system for professional courses will better serve the practical needs of industry-education integration, providing strong support for students' comprehensive development.

## **4. Empirical Research on Ideological and Political Education Evaluation in "Product Design Procedures and Methods"**

In the context of industry-education integration, the empirical research on ideological and political education evaluation in the "Product Design Procedures and Methods" course focuses on the application of the "OBE+CIPP" model. This section will delve into how this model is specifically applied in this professional course and analyze its effectiveness.<sup>[6]</sup>

### ***4.1 Analysis of Course Background and Characteristics***

The design and teaching objectives of the course are firmly integrated with the concept of industry-education integration, emphasizing the close integration of ideological and political education with professional knowledge. We first analyze the background and characteristics of the "Product Design Procedures and Methods" course, focusing on how the elements of the OBE and CIPP models are integrated into the course design.

#### ***4.1.1 Integration of Course Structure with OBE+CIPP Model***

In the course structure of "Product Design Procedures and Methods," we adopt the OBE (Outcome-Based Education) model, focusing on student outcomes. This teaching method emphasizes assessing students' learning outcomes through their actual projects and works to ensure that they can apply theoretical knowledge to practice. The course aims to cultivate students' innovative thinking, design skills, and practical operational capabilities, enabling them to demonstrate tangible, quantifiable

outcomes upon course completion.

Additionally, the CIPP (Context, Input, Process, Product) model plays a crucial role in course design. Particularly in the aspects of "Context" and "Input," we ensure that the course content and teaching resources are aligned with current industry trends and ideological and political education objectives. By analyzing industry demands and educational objectives, the course is designed not only to impart professional knowledge but also to cultivate students' sense of social responsibility and ethical values. This approach ensures that students not only possess necessary technical skills upon graduation but also have critical thinking abilities and moral judgment.

#### ***4.1.2 Implementation of Teaching Objectives and Process***

In setting the teaching objectives for "Product Design Procedures and Methods," we closely follow the "Process" dimension of the CIPP model. This means that the formulation of teaching objectives focuses not only on the final learning outcomes but also on students' learning processes, participation methods, and cognitive development. The teaching objectives include cultivating students' professional skills, innovative thinking, and ideological and political literacy, emphasizing the gradual realization of these objectives throughout the learning process.

In terms of implementation, we employ diverse teaching methods to ensure that students have comprehensive access to and absorption of course content. These methods include case studies, team collaboration projects, practical exercises, and critical thinking training. Each method aims to promote students' development in different dimensions, including technical capabilities, teamwork, and social responsibility.

Students' participation methods are also designed to support the achievement of teaching objectives. For example, team collaboration projects not only enhance students' collaboration and communication skills but also reinforce their ideological considerations when solving practical problems. Additionally, through regular classroom discussions and feedback sessions, teachers can assess students' understanding and development of ideological and political literacy, adjust teaching strategies timely, and ensure that the teaching process consistently revolves around established teaching objectives.

Overall, the implementation of teaching objectives and processes not only focuses on students' acquisition of knowledge but also emphasizes the cultivation of their ideological and political literacy and the comprehensive development of personal abilities, fully reflecting the importance of the "Process" dimension of the CIPP model in instructional design.

## ***4.2 Practical Application of the Ideological and Political Education Evaluation System for Professional Courses***

This section provides a detailed description of how the "OBE+CIPP" model is specifically applied in the "Product Design Procedures and Methods" course, including implementation steps, levels of participation, and feedback on evaluation results.

### ***4.2.1 Implementation Steps***

In the implementation steps of "Product Design Procedures and Methods," we first focus on the application of the OBE (Outcome-Based Education) model. This involves outcome-oriented course design, where students' learning outcomes and performance become the core of evaluating teaching effectiveness. Specifically, we set clear learning outcome goals, such as completing design projects, demonstrating innovative thinking, and mastering professional skills. These goals are aimed at ensuring that students not only gain necessary technical knowledge but also can demonstrate their application abilities in practical design projects.

Next, the "Product" dimension of the CIPP model plays a key role in the evaluation system. We not only focus on students' performance in professional skills but also emphasize their ideological and political literacy, including social responsibility, ethical awareness, and teamwork ability. The assessment of these aspects is conducted through various forms such as project reports, group discussions, and individual reflections to ensure a comprehensive evaluation of students' overall literacy.

Overall, the design of implementation steps aims to comprehensively evaluate and promote students' learning outcomes and personal development in the "Product Design Procedures and Methods" course through the outcome-oriented approach of the OBE model and the comprehensive evaluation method of the CIPP model. This approach ensures that the course not only meets the

teaching needs of technical skills but also cultivates students' ideological and political literacy and social responsibility.

#### ***4.2.2 Levels of Participation and Background Analysis of CIPP***

In the implementation of the "Product Design Procedures and Methods" course, the level of participation by both students and teachers is a critical factor that directly affects teaching effectiveness and learning outcomes. The "Context" dimension of the CIPP model is particularly important in this regard. In the course design and implementation process, we conduct in-depth analyses of students' academic backgrounds, skill levels, and learning needs. This background analysis helps us tailor course content and teaching methods to accommodate the specific needs of different student groups. For example, by introducing diverse teaching methods and flexible course structures, we ensure that students with various backgrounds can effectively participate and benefit. Teachers' level of participation is equally important; they are not only knowledge transmitters but also key roles in guiding and inspiring students' ideological and innovative abilities. Through active participation and guidance, teachers can stimulate students' interest in learning, promote their active learning and deep thinking in the course.

#### ***4.3 Assessment of the Enhancement of Students' Comprehensive Literacy***

In this section, we focus on evaluating the actual effect of the "Product Design Procedures and Methods" course on enhancing students' comprehensive literacy. Using the comprehensive evaluation framework of the CIPP model, we comprehensively consider the improvement of students' ideological and political literacy, innovative abilities, and teamwork capabilities. Evaluation methods include but are not limited to the analysis of student works, assessment of team projects, self-reflection reports, and observation of classroom performance. These assessment methods help us capture students' progress and growth in the course, especially in dealing with complex problems, critical thinking, and moral and ethical decision-making abilities. In addition, through regular feedback and discussion sessions, we can understand students' acceptance of course content and the depth of their understanding of ideological and political education, further optimizing teaching strategies and course content.

##### ***4.3.1 Evaluation of Student Ideological and Political Literacy***

In the assessment of students' ideological and political literacy, we adopt a qualitative analysis method to observe and analyze in-depth students' ideological and political literacy demonstrated in classroom discussions, assignments, and project reports. This assessment method reflects the "Process" and "Product" dimensions of the CIPP model, focusing not only on students' final outcomes but also on the development of their ideological and political literacy during the learning process. We pay special attention to students' social responsibility, ethical awareness, and understanding and attitudes toward social issues demonstrated in discussions. Furthermore, by analyzing students' assignments and projects, we can understand how they integrate ideological and political education with professional learning and their moral and ethical considerations in solving practical problems. These qualitative analyses provide us with important perspectives for understanding the development level of students' ideological and political literacy, helping us better understand and improve teaching strategies and course design.

##### ***4.3.2 Evaluation of Innovative Abilities and Team Collaboration***

In the evaluation of innovative abilities and teamwork collaboration, we adopt the outcome-oriented approach of the OBE model. Through specific quantitative indicators such as project innovation, problem-solving methods, and teamwork efficiency, we comprehensively assess students' innovative abilities and teamwork performance. Students' creative proposals, problem-solving strategies, and team interactions in design projects are the main evaluation content. This evaluation not only reflects students' technical skills in the professional field but also demonstrates their ability to apply ideological and political education in a team environment. Through this comprehensive evaluation method, we ensure that students not only enhance their professional skills but also significantly improve their ideological and political literacy and comprehensive qualities in the "Product Design Procedures and Methods" course, achieving the effective integration of course objectives and teaching content.

## **5. Challenges and Prospects**

### **5.1 Challenges and Issues in Constructing Evaluation Systems**

#### **5.1.1 Teacher Training and Ideological and Political Literacy**

The primary challenge in constructing an ideological and political evaluation system for professional courses is ensuring that teachers have sufficient ideological and political literacy and can effectively impart these qualities to students. Teacher training needs to delve into areas such as ethics and social responsibility to ensure that they can understand and effectively integrate these elements into professional courses. It is not only necessary to enhance teachers' subject knowledge but also to cultivate their educational capabilities in ideological and political education.

#### **5.1.2 Complexity of Discipline Integration**

Integrating ideological and political elements into professional courses involves the organic combination of disciplinary knowledge and ideological concepts. This requires interdisciplinary collaboration and communication, demanding that teachers possess knowledge across multiple disciplines and can integrate this knowledge in practical teaching. Furthermore, discipline integration also needs to maintain the depth and breadth of disciplines, ensuring that ideological and political elements are not merely added onto professional knowledge but are truly integrated into the core of the discipline.

#### **5.1.3 Scientific and Rationality of Evaluation Indicators**

Ensuring the scientific and rationality of evaluation indicators when constructing an evaluation system is a challenging task. It requires comprehensive consideration of ideological and political literacy, innovative abilities, teamwork, and other aspects, ensuring that evaluation indicators are not only objectively quantifiable but also possess the depth of subjective evaluation. The design of evaluation indicators should adhere to principles of educational and psychological theories to ensure that evaluation results accurately reflect students' development.

#### **5.1.4 Theoretical Support for Addressing Challenges and Issues**

These challenges intertwine and impact the evaluation system, requiring in-depth theoretical support for resolution. For teacher training, training theories from the field of education can be drawn upon to ensure the effectiveness of training content and methods. The problem of discipline integration can be addressed through theories of discipline integration and experiences in practice. The design of evaluation indicators needs to rely on educational evaluation theories and practices to ensure the scientificity and effectiveness of the evaluation system.

By deeply analyzing these challenges and issues, theoretical support can be provided for constructing an ideological and political evaluation system for professional courses. This involves theoretical knowledge from multiple fields such as education, interdisciplinary integration, and evaluation, through theoretical guidance and support, practical problems can be better addressed to ensure the smooth implementation of the evaluation system.

### **5.2 Future Development Directions and Suggestions**

#### **5.2.1 Deepening Teacher Training and Interdisciplinary Collaboration**

One of the future development directions is to deepen teacher training to ensure that teachers have a deeper understanding of ideological and political literacy and interdisciplinary integration. Educational institutions should provide systematic training courses covering knowledge in ethics, social responsibility, and other relevant areas, and teacher development programs should focus on cultivating teachers' interdisciplinary collaboration capabilities. Schools and educational authorities should establish mechanisms for collaboration among teachers to promote the effective integration of ideological and political elements with disciplinary knowledge.

#### **5.2.2 Strengthening the Sustainability of the Evaluation System**

To ensure the sustainability of the evaluation system, it is recommended to incorporate the evaluation system into the teaching quality assurance system and conduct regular evaluations and adjustments. The educational institutions should establish a dedicated evaluation committee composed of professionals and education experts to review the design and implementation of the evaluation

system. Additionally, the institutions should establish feedback mechanisms from students and businesses to collect information from multiple perspectives and continuously optimize the evaluation system.

### **5.2.3 Addressing Emerging Issues and Trends**

In future development, attention needs to be paid to emerging issues and trends, especially the impact of technological development on ideological and political education in professional courses. Educational institutions should introduce new technological means, such as artificial intelligence and big data analysis, to evaluate students' comprehensive literacy more accurately. Also, paying attention to new social changes to ensure that the evaluation system can adapt to the needs of social development and cultivate professional talents adaptable to future society.

### **5.2.4 Promoting Internationalization and Cultural Integration**

Future development directions also include promoting internationalization and cultural integration. To enhance ideological and political education and cultivate students with strong international competitiveness, it is essential to draw lessons from international experiences and successful practices in other countries. Incorporating international elements into the evaluation system can help achieve this goal. Additionally, focusing on cultural integration will enable the evaluation system to better meet the educational needs of students from diverse cultural backgrounds.

By deepening teacher training, strengthening sustainability, addressing emerging issues and trends, and promoting internationalization and cultural integration, the ideological and political evaluation system for professional courses can better align with the development trends of future education, providing more effective support for cultivating well-rounded professional talents.

## **6. Conclusion**

This study deepened the understanding of the integration of ideological and political education with professional courses through the exploration of the "OBE+CIPP" ideological and political evaluation system based on the background of industry-education integration. The empirical research on the "Product Design Procedures and Methods" course demonstrates that constructing a scientifically rational ideological and political evaluation system is of positive significance for enhancing students' ideological and political literacy and comprehensive abilities. However, it also faces some challenges and issues that need further research and resolution. Future work should focus on deepening the practical application of the evaluation system, continually improving the system framework to better meet the needs of industry-education integration, and cultivating high-quality professional talents more adaptable to social development.

## **References**

- [1] Cao, Xiangling. "Research on Ideological and Political Evaluation Standards of Multi-Subject Collaborative Education Courses in Civil Aviation Transportation Major of Higher Vocational Colleges under the Integration of Industry and Education." *Logistics Engineering and Management*, 2023, 45(12): 173-175+155.
- [2] Fan, Ying. "Research on Ideological and Political Evaluation of Professional Courses in Universities." *Teaching and Educating People (Higher Education Forum)*, 2023(30): 54-56.
- [3] Xiao, Peng. "Exploration of OBE+CIPP Classroom Evaluation Model." *Research on Higher Engineering Education*, 2021(06): 176-182.
- [4] Liu, Jianan. "University English Translation Teaching from the Perspective of OBE+CIPP—How to 'Tell Chinese Stories' Well." *Modern English*, 2022(16): 65-68.
- [5] Ge, Yanli. "Research on English Translation Teaching Evaluation Based on OBE+CIPP—Taking Changchun Construction Institute as an Example." *Journal of Yanbian Education Institute*, 2022, 36(04): 10-12.
- [6] Xie, Ni. "Construction of Innovative Evaluation Mode of 'OBE+CIPP' Classroom Assessment in Vocational Colleges under the Perspective of Skill-Oriented Society." *Journal of Suzhou Vocational University*, 2023, 34(04): 77-83.