

# ***Research on the Formative Evaluation to Enhance the Educational Impact of the "Curriculum Ideological and Political" in Grassroots Teaching Organizations at Undergraduate Colleges and Universities—Taking Shipbuilding and Marine Engineering as a Case Study***

**Liu Weixing<sup>1</sup>, Wu Bo<sup>1</sup>, Guan Le<sup>1</sup>, Zhang Zhiyang<sup>2</sup>**

<sup>1</sup>*Makarov College of Marine Engineering, Jiangsu Ocean University, Lianyungang, 222005, China*

<sup>2</sup>*School of Ocean Engineering, Jiangsu Ocean University, Lianyungang, 222005, China*

**Keywords:** Formative assessment; curriculum ideological and political; undergraduate colleges and universities; educational effect

**Abstract:** Undergraduate universities not only undertake the tasks of teaching knowledge and skills, but also the tasks of cultivating qualified builders and reliable successors. In recent years, Formative Assessment has gradually become an important way for college teaching quality evaluation. This study will be applied to the undergraduate college ships and marine engineering curriculum ideological and political teaching evaluation systems. It details the significance, content, and solutions that build a teaching evaluation system based on formation of formation. The application and research of the ideological and political evaluation of other courses in the ideological teaching evaluation system is promoted.

## **1. Introduction**

In May 2020, the Ministry of Education pointed out in the "Guidelines for Ideological and Political Construction of Curriculum in Colleges and Universities" that comprehensively promoting curriculum ideological and political construction is a strategic measure to implement the fundamental tasks of strengthen moral education and cultivate people, and put forward the requirements of establishing and improving the quality evaluation system and incentive mechanism of curriculum ideological and political construction [1]. To evaluate the quality of curriculum ideological and political is an important part of the construction of "curriculum ideological and political".

Through the application of formative evaluation to improve the effect of "curriculum ideological and political", we assess the feedback and summarisation of educational and teaching activities by formative evaluation strategies and methods, to achieve the detection and presentation of educational effectiveness, and to form a closed loop from decision-making to implementation to evaluation. The ideological and political quality of students in undergraduate colleges and universities is also a key factor in achieving the effectiveness of education and teaching. The quality

evaluation of "curriculum ideological and political" is the evaluation of teaching and educating people, character and talent at the same time. This project will use formative evaluation method throughout the entire course of curriculum ideological and political reform, to assess and practice the effectiveness of such evaluation, the research process follows the logical order of literature collation and interviews, put forward the hypothesis, verify the hypothesis, revise the hypothesis, re-verify the hypothesis, draw conclusions, and put forward suggestions.

First, the origin, purpose, significance and core concept of the study are expounded. Then, it combs the connotation of formative evaluation in detail, and fully draws on and absorbs the research results and wisdom. According to the technical route of practice, evaluation, analysis, revision and re-practice research, and centering on the application of formative teaching evaluation in the reform of " curriculum ideological and political " in the organization of shipbuilding and marine engineering curriculum, an evaluation system for evaluating the education effect is designed, evaluation indexes of various dimensions and levels are constructed, and educational evaluation research is carried out. Through the analysis of the two test results, the research index is further revised. The index weight of formative evaluation in the teaching of "curriculum ideological and political" is completed, and the significant role of formative evaluation in improving the teaching effect of "curriculum ideological and political" is verified through the correlation analysis of the actual questionnaire. This paper puts forward the implementation principle of formative evaluation in the teaching practice of "curriculum ideological and political".

## **2. Research Design**

### **2.1. Specific Issues of Research**

Curriculum ideological and political is an important part of higher education, shouldering the important mission of guiding students to establish a correct world outlook, outlook on life and values [2]. Teaching evaluation is a direct way to prove whether education and teaching is effective. Guided by someone's thoughts on socialism with Chinese characteristics in the new era, based on the primary teaching organizations and teaching classes of undergraduate universities and marine engineering courses as research objects, focusing on the entire process of teachers' teaching and students. Theoretical and methods collect information and materials through various channels and methods to qualify and quantitatively evaluate whether the process of curriculum ideology has achieved the goal of education, so as to achieve the evaluation of the effect of "curriculum ideological and political". Through the research, the evaluation dimension of the effect of "curriculum ideology and political" education for undergraduate universities: evaluation indicators for adapting to the goal of designing ideas, politics and education; As a result, it provides an important basis for the scientific decision making of "curriculum ideological and political" teaching, and achieves the actual performance of the people.

### **2.2. Restrictions on the Scope of Research**

This research takes the teaching of " curriculum ideological and political " in the basic teaching organization of the ship and marine engineering course in undergraduate colleges as the research entry point, understands the learning situation of the students of this course from the two aspects of "teaching" and "learning", and grasps the validity of the teaching goal and ideological and political goal of the course, and the ideological and political education goal achieved by formative teaching evaluation in the teaching and teaching practice. In the construction of the evaluation system, it is still necessary to take the teaching objectives as the basis, not separate from the teaching materials and disciplines, and use the method of combining qualitative and quantitative research to establish a

scientific and effective evaluation system of " curriculum ideological and political " education effect, so as to effectively guide the curriculum construction and improve the education effect.

### 2.3. Research Object

This paper studies the application of formative evaluation of undergraduate courses related to ship and marine engineering in the teaching reform of " curriculum ideological and political " in Makarov College of marine Engineering of Jiangsu Ocean University, and takes the students of grade 2021, 2022 and 2023 of this major as the research object.

## 3. The Effect of Educating People in Curriculum Ideology

The proposal of the concept of "curriculum ideological and political" has changed the teaching of the original "knowledge". "Curriculum ideological and political" must establish the ideals and beliefs of loving the party, patriotism, socialism, love people, and collectives, and reflect the education of the core values of family conditions, humanistic literacy, rule of law, moral cultivation and socialist core values [3]. The above content reflects the diversity of "curriculum ideological and political ", which also determines the multi -dimensional characteristics of the evaluation system of professional "curriculum ideological and political" elements.

### 3.1. Establish a "Curriculum Ideological and Political" Evaluation System

In order to reflect the diversity of "curriculum ideological and political ", we have built the "3 × 4 curriculum ideological and political" educating effective evaluation coordinate system. The effectiveness of "curriculum ideological and political" with 3 dimensions [4] and 4 levels explains the effect of formal evaluation, as shown in Figure 1.

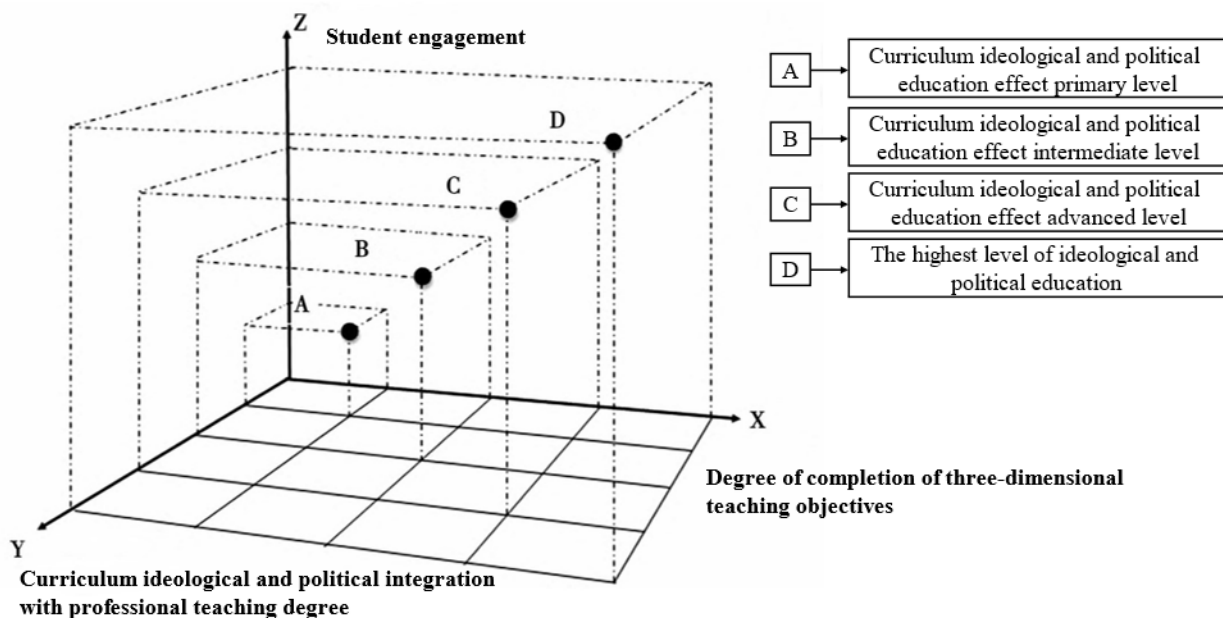


Figure 1: "3 × 4 curriculum ideological and political" educational effectiveness evaluation coordinate system.

In the above three -dimensional coordinate system:

X -axis -the completion of teaching goals;

Y -axis -the integration of ideological and political content and professional courses;

Z -axis -students' curriculum participation.

Among them, the X -axis represents the completion of teaching goals, including both knowledge and skill goals, as well as ideological and political teaching goals. " curriculum ideological and political " is evaluated in the evaluation of 4 indicators in the evaluation of the effectiveness of educating people: first, the experience of the student's learning process; the other is the harvest of students' knowledge and skills; the third is the students' recognition of curriculum training; the fourth is to enhance the value shaping of students. These four indicators are progressive, covering knowledge, skills, emotions and attitudes, which in turn reflect the outlook on life and values.

After applying formative assessment to the teaching of all courses in the basic teaching organization of ship and marine engineering in undergraduate universities, the research group conducted post-test on students. Questionnaire survey is carried out as the data for quantitative evaluation, and qualitative evaluation is achieved through educational interview. Through the combination of quantitative and qualitative evaluation of the educational effect of "curriculum ideological and political ", the post-test is carried out in a timely manner after the end of the course, and the education with evaluation has more practical value and promotion value.

The Y -axis represents the integration of "curriculum ideological and political" and professional courses. This dimension reflects the ability of professional and political teaching goals and professional knowledge and skills to organically integrate in teaching design and classroom activities. The higher the political consciousness of teachers, the stronger the professional ability, the higher the integration of "curriculum ideological and political" and professional courses. Teachers' political literacy is reflected in teachers' self -confidence in the theoretical system and culture of Chinese roads. Combining this identity with professional teaching activities to cultivate and improve students' political recognition. Teachers' political literacy determines the effect of talent training in undergraduate colleges. This dimension is a comprehensive presence of teachers' political quality and professional literacy.

Teachers are the main body of implementation and play a decisive role in the implementation of curriculum ideological and political [5]. The political literacy of teachers in higher vocational colleges determines the direction of the basic talent training direction of "who cultivates, how to cultivate people, who cultivates people" [6]. Only higher vocational teachers have high political identity, promote and practice the core values of socialism, and achieve "four self -confidences" can it be reflected in the best way to find the best integration of "curriculum ideological and political" and professional courses education and teaching in teaching behavior.

The Z -axis represents the degree of participation of students in the teaching process. This dimension reflects whether teachers guided students' methods and organizing classroom teaching in the process of "curriculum ideological and political" teaching activities, and students' participation and initiative were high. The law of teaching shows that the degree of participation of students' classrooms determines the quality of classroom teaching. High -quality classroom teaching must be students with high participation. In the process of teaching, teachers can use various methods to continuously stimulate students' learning enthusiasm and guide students to carry out inquiry learning activities, thereby breaking through the focus and difficulties in the course. Learning results are diversified. This has achieved the effect of educating and educating the purpose of "curriculum ideological and political". The higher the participation of students, the better the effect of educating people.

In the "3 × 4 curriculum ideological and political" effect evaluation coordinate system, the four coordinate points represent the 4 levels of primary, intermediate, senior, and highest -level " curriculum ideological and political " [7]. The greater the coordinate value of X, Y, and Z, the higher the level, the better the educational effect. If the formation evaluation of the "curriculum

ideological and political” teaching, the measurement range of the three dimensions is improved, then the better the effect of “curriculum ideological and political”. The three dimensions together determine the quality of education in "curriculum ideological and political." In the following sections, we will explore the four levels of the impact on educating individuals within the coordination. The three dimensions jointly determine the quality of education of "curriculum ideological and political”. In the following, the four levels of the effect of educating people in the coordinates are explained:

The primary level of education effect. Teachers can initially combine the content of “curriculum ideological and political” with professional teaching content. Students did not participate, few teachers and students communicated, did not carry out “curriculum ideological and political” teaching evaluation, and education and teaching methods were instilled for teachers unidirectional. The effectiveness of "curriculum ideological and political" is in the primary stage, that is to say, teachers lack scientific understanding of teaching classrooms, generally weaker education and research capabilities, and generally lower education and teaching capabilities. The intermediate level of educational effectiveness can be enhanced by teachers integrating the content of "curriculum ideological and political," which reflects political identity, with professional subjects. This approach encourages high levels of student participation, interaction, and evaluation. The educational effect of "curriculum ideological and political" is in the intermediate stage. It shows that teachers have certain teaching and research methods, such as observation method. Teaching research is conducted on students' learning experience and acquisition, their mastery of professional knowledge and skills, and the improvement of students' value creation, and the evaluation of curriculum teaching is carried out. This stage reflects that teachers have the consciousness and ability to teach research—the higher level of education effect. Teachers can integrate the ideological and political content that reflects political identity with professional teaching. In the teaching process, students participate actively, engaging in frequent interactions with teachers and undergoing systematic evaluations. This leads to the highest level of educational effectiveness. This level is the highest level of "curriculum ideological and political" education in undergraduate colleges. This stage shows that the development of " curriculum ideological and political " teaching combines the highest results of whole-person education, whole-process education and all-round education, and works in the same direction as the ideological and political theory courses, professional platforms, counselors and other "three-in-one education" systems. Teaching evaluation plays an important role in it.

In the research, the assumptions are first proposed. Assume that in the professional "curriculum ideological and political" teaching adopts formed teaching evaluation, the effectiveness of "curriculum ideological and political" will be improved. Then start education experiments. By adopting the previous and post -testing of educational experiments, collect questionnaires to analyse the experimental data. The previous test questionnaire was carried out before the development of formation evaluation. The previous test was measured and investigated for the initial state of the students, and it was carried out around the 4 levels of the "3 × 4 curriculum ideological and political" educating effectiveness evaluation coordinate system. The post-test questionnaire was carried out immediately after the teaching activity. It is the measurement and investigation of the student status after the teaching activities. It also carried out 4 levels of the "3 × 4 curriculum ideological and political" educating effectiveness evaluation coordinate system. Third, analysis and discussion of experimental results. Confirm or fake assumptions, find the law of "curriculum ideological and political", summarize and optimize, and re -arrange a new round of practice and verification.

The key point of the teaching evaluation of "curriculum ideological and political" in higher vocational schools is to make the ideological and political goals from abstract to concrete, and

become an indicator of evaluation, the results of the learning tasks, and reflecting the ideological level with the process of professional skills. Taking the spirit of craftsmen as an example, teachers guide students to cultivate the ideological quality of excellence, and should avoid broad questions, "Are you serious and meticulous, in line with the spirit of craftsmen?" Instead, the connotation of craftsmanship should be introduced into the skills practice of the craftsmanship. To internalize what you have learned, and then communicate how you practice the spirit of craftsmen. Through the scoring table of learning task results, quantitative evaluation of "curriculum ideological and political" will specifically evaluate the abstract evaluation as an evaluation of knowledge, skills, and application capabilities.

#### 4. Evaluation of Formation and Implementation Suggestions in "Curriculum Thoughts and Politics"

The root of "curriculum ideological and political" lies in "strengthen moral education and cultivate people". In the process of teaching curriculum knowledge and training technical skills, the value of students is achieved. Before the class, the focus is on mobilizing the enthusiasm of students to learn. The development of formation evaluation is mainly aimed at students' cognitive level, life experience and learning interest, and guided students to develop exchanges. The development of experience, practice, and evaluation is "student -centered". The formation evaluation in the class should be combined with the teaching process to penetrate the entire process of teaching. At the key node of teaching, teachers must have reasonable evaluation and feedback. After class, the task arrangement is reasonable, the teaching design is scientific and reasonable, focuses on basic content, cultivates the training of problem skills, and the use of comprehensive knowledge. It can be completed by conducting experiments, group activities, display summary. As shown in Figure 2.

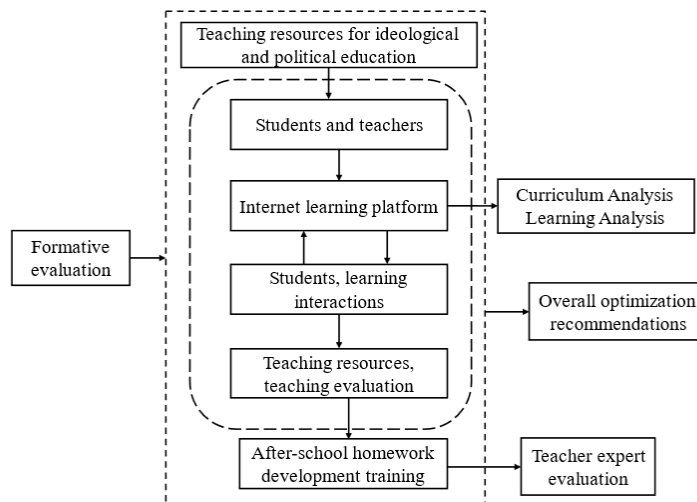


Figure 2: Formative evaluation process in the teaching process of “Elementary teaching organization of ship and ocean engineering”

##### 4.1. Suggestions for the Implementation of Formation Sex Evaluation

"Curriculum ideological and political" is not an ideological and political curriculum, and it cannot exceed professional content. The purpose of "curriculum ideological and political" is to better conduct professional education, vocational education, and complete the shape of student values in professional training.

Good education must be teaching for teaching. The courses are evaluated with quantitative qualitative combination, and timely feedback is given, so that students can realize their advantages and deficiencies, so that teachers can find the shortcomings of their existence in teaching, and improve them in time to improve them in time. Essence In the evaluation, the effectiveness of "curriculum ideological and political" is continuously improved, and the laws of education of "curriculum ideological and political" are continuously improved.

"Curriculum ideological and political" is a teacher -dominated activity of teachers and students as the main body. In the process of formation, we must pay attention to students' self -evaluation and mutual evaluation, so that students can have a comprehensive understanding of their own advantages and disadvantages, so that their subjective initiative can be fully exerted.

Pay attention to process. Formed evaluation is a long -term, sustainable and effective concern for learning. The construction of "curriculum ideological and political" should be organically combined with the organic and political education of colleges and universities, and the management of counselors to manage and educate people.

## 5. Conclusion

Through the practice of the formation of "curriculum ideological and political", the evaluation system and path of "curriculum ideological and political" educating people have been established, so that teachers pay attention to the "curriculum ideological and political" teaching with students as the main body. "The process, in order to explore the law of changes in the quality of education, promote the continuous improvement of the effect of education, improve the level of education of teachers, and provide theoretical reference and practical basis.

## Acknowledgements

This paper is funded by Jiangsu Ocean University -level education reform topic "Evaluation of Formation and Improvement of "Curriculum Ideological and Political", project code: JGX2023016.

## References

- [1] Unknown. *Someone presided over a forum for teachers of ideological and political theory courses in schools, stressing the use of the new era of socialist thought with Chinese characteristics to cast the soul and educate people to implement the party's education policy to implement the fundamental task of establishing moral education* [J]. *China Torch*, 2019(4):2.
- [2] Bao Yu. *Exploration of teaching innovation path of Ideological and political course in vocational college under digital background* [J]. *Public Relations World*, 2025, (03):120-122.
- [3] Ministry of Education of the People's Republic of China. *The Leading Party Group of the Ministry of Education of the Communist Party of China issued the Implementation Outline of the Ideological and Political Work Quality Improvement Project in Colleges and Universities* [EB/OL]. (2017.12.06) [2024.12.11]. [http://www.moe.gov.cn/srcsite/A12/s7060/201712/t20171206\\_320698.html](http://www.moe.gov.cn/srcsite/A12/s7060/201712/t20171206_320698.html).
- [4] Wang Yue. *Implementation Strategies and effects of Formative Assessment in English essay error correction and written expression Teaching* [D]. *Central China normal university*, 2018. DOI: 10.27159/, dc nki. ghzs. 2018.000153.
- [5] Shen Yinxi. *Promoting the Innovation and Development of University Curriculum Ideology and Politics -- Exploration of Differentiated Education Model* [J]. *University*, 2025, (03):73-76.
- [6] Yu Hongjian, Liu Lulin. *Digging deeper into the elements of curriculum Civics to enhance the effectiveness of nurturing people* [N]. *China Education News*, 2022-08-17.
- [7] Xie Zhenwang. *The construction of the evaluation index system of the effectiveness of 'course civics'* [J]. *Modern Vocational Education*, 2018(14):43.