

Retraction

Retracted: Research on the Reform Direction of Ideological and Political Course Teaching Based on Online Open Courses

Mathematical Problems in Engineering

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

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- [1] D. Liu, "Research on the Reform Direction of Ideological and Political Course Teaching Based on Online Open Courses," *Mathematical Problems in Engineering*, vol. 2021, Article ID 7411334, 6 pages, 2021.

Research Article

Research on the Reform Direction of Ideological and Political Course Teaching Based on Online Open Courses

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In the context of the “Internet +” era, educational information has become an inevitable trend in educational development. The successive introduction of relevant policies has laid the foundation for the steady development of educational information. Online open courses are an important means to expand teaching space and time, and this article aims to open up a new direction for the teaching reform and development of ideological and political courses through the combination of ideological and political courses and online open courses. This article proposes the analytic hierarchy process and the Delphi method. First, the Delphi method is used to revise the initially constructed indicator system; then, the analytic hierarchy process is used to design the weights of the indicator system; finally, we try to apply the established index system. The experimental results of this paper show that teacher expression and curriculum content have a greater impact on classroom teaching. The weight of teacher expression is 0.25, and the weight of curriculum content is 0.26.

1. Introduction

Ideological and political courses are the main ways of Marxist education in our country, and ideological and moral studies play an irreplaceable role in shaping the world outlook. In order to cultivate more talents that meet the needs of society, our country has continuously reformed basic education, but there are still many problems in the actual teaching reform.

In the actual teaching of ideological and political courses, teachers often use the “full class” method and dare not let go of students. As a result, students do not like or even avoid taking ideological and political theory classes. This is not only conducive to the cultivation of students’ comprehensive abilities but also prevents students’ thinking from being fully expanded. With the development of society and the awakening and enhancement of students’ subjective consciousness, these contradictions have reduced the credibility of the teaching content of ideological and political courses, weakened their educational functions, and thereby affected their acceptance. The students trained in this way cannot serve the future society. Therefore, in line with the trend of

education in our country, online open courses are applied to ideological and political courses, and more and more in-depth research studies on the direction of ideological and political teaching reforms are conducted.

Through detailed phenomenological interviews and data analysis, Wang and Chang analyzed the extensions related to the teaching experience of teachers in large-scale open online courses and put forward suggestions. However, this research is only an analysis of the teaching experience of large-scale online open courses, and this is not the only factor that affects online open courses [1]. Panigrahi and Srivastava used the Twitter data related to motivation on MOOC for text mining and found that users have a positive attitude towards MOOC motivation, and the entities that affect users are popular users on Twitter [2], but the research is only a mining perspective on Twitter. After finding that the completion rate of large-scale online public courses was very low and the existing analysis focused on resource access patterns and the use of learning analysis to predict dropout patterns, Sinclair and Kalvala assessed that the scope of MOOC can be achieved in the context of enriching the conceptualization of student participation [3]. Although the

steps that can be taken in the study can be used to increase participation, it also examines the level of teacher and student level in MOOC teaching.

The innovation of this article lies in the following. (1) Through a combination of theoretical analysis and empirical investigation, it explores the effect of online open courses. (2) The application of the analytic hierarchy process and the Delphi method to the construction of the university online open curriculum certification indicator system further improves the construction of online open curriculum resources and also improves the operability and rationality of the indicator system.

2. Research Methods on the Direction of Ideological and Political Teaching Reform Based on Online Open Courses

2.1. Overview of Online Open Courses

2.1.1. The Concept of Online Open Courses. For the definition of online courses, there are representative ones as follows. One is regarding the views of Pan and Chapman et al. [4, 5], which indicate that all online courses are conducted online. The transmitted courses usually have no or very few face-to-face teaching classes. Second, the online courses should combine the teaching content of a certain topic that appears on the Internet with teaching activities [6, 7].

2.1.2. Problems with Online Open Course Resources

- (1) A wide variety but not high quality: as more and more researchers realize the importance of innovative construction of curriculum resources and try to make some new forms of curriculum resources [8, 9], a large number of curriculum resources are not optimized in terms of content, although there are many kinds of them. High-quality curriculum resources.
- (2) The structure is disordered and discrete: some online open course resources that match with school courses can help learners to master course-related content to a certain extent, but these course resources generally have the disadvantages of disorderly structure and fail to carry out systematic organization and planning, and there is repeated construction of course resources. Various problems, such as difficulty in finding, affect the effective use of various types of online open course resources [10].
- (3) Lack of system integrity: there is a lack of ecological values that are generally connected with curriculum resources [11], and various parts of curriculum resources are in a state of fragmentation, and it has not been able to carry out reasonable comprehensive coordination and utilization.

2.2. Research Methods of the Direction of Ideological and Political Teaching Reform

2.2.1. Literature Research Method. Literature research method is the method of researching and exploring a certain

subject through the research of related literature. The literature mentioned here mainly refers to the party and the government's documents and regulations on ideological and political majors, teaching reforms, and higher education, as well as research monographs and articles on ideological and political and professional teaching [12, 13]. Any research should learn from research papers and the work of previous researchers or other scholars at the same time. There are many documents on the relevant aspects of the reform of ideological and political science graduate education, which must be extensively compiled through multiple channels and systematically analyzed, compared, and summarized in order to absorb the essence and use it for our use.

2.2.2. Investigation and Research Method. This is an important method of understanding and research. The so-called survey refers to the collection of curriculum and teaching materials for typical universities, understanding the problems in their curriculum, understanding the status, problems, and opinions of teaching and learning, and mastering a large number of specific materials [14, 15]. The content is obtained by analyzing and researching the causes of problems and proposing solutions to guide and improve teaching and improve teaching quality and level.

2.3. Analytic Hierarchy Process. The well-known analytical hierarchy process (AHP) is one of the most comprehensive evaluation methods provided by American business researchers and Professor T. L. Saaty from the University of Pittsburgh [16, 17]. "It is a combination of qualitative and quantitative decision analysis methods." When AHP is used in the decision-making process, it can be divided into three steps: comparing the importance of each second-tier indicator in the rating indicator system with the first tier and marking the first layer; calculating the relevant layer weight of each layer; and performing consistency check. The AHP method is used to determine the weight of classroom teaching evaluation indicators.

3. Research Experiment on the Direction of Teaching Reform of Ideological and Political Courses Based on Online Open Courses

3.1. Design of Evaluation Index

3.1.1. Selection of Experts. Considering that this rating system meets the conditions, 15 open online students will be selected as experts, including 10 open students from universities and towns in the city. We contacted each expert to clarify the content and purpose of the study, obtained the expert's consent, and ensured that all experts can participate in the study from beginning to end.

3.1.2. Identifying the Quality Evaluation Indicators of Online Open Courses. In the form of a survey, the selected experts provide key quality evaluation indicators for outstanding open classes, and at the same time, each indicator proposed

for the discussion of the reasons is briefly introduced. The level of agreed opinions and different opinions of experts received in the last round will be returned to each expert anonymously, and comments will be sought again. The operation is repeated until the opinion level reaches a level to determine the scoring index in the scoring index system.

3.1.3. Identifying the Weights of Quality Evaluation Indicators for Online Open Courses. The method of determining indicator weights is as follows. (1) Send the weight indicators and related data and unified weighting rules to the selected experts and ask them to give the weight value of each sample. (2) Retrieve the results and calculate the probability weight distribution of each indicator. (3) Calculate the expected value, weight change, and standard deviation of each indicator according to the distribution. (4) Return the calculation results and other data to the experts and assign the weight values of all experts to the new standard. (5) Repeat steps 2 and 4 until the weight value of each indicator deviates. The average score does not exceed the established standard, that is, the opinions of experts are usually consistent, and the average weight of each indicator is currently used as the weight of the indicator.

3.2. AHP Experiment

3.2.1. Constructing a Judgment Matrix. Table 1 is the judgment matrix of various secondary indicators in the evaluation indicator system against the upper-level indicators.

3.2.2. Calculating the Eigenvector of the Matrix. First, calculate the product H_a of each row in the matrix $F(a,b)$ ($a, b = 1, 2, 3, \dots$) and then divide the product to the power of n ; the formula is as follows:

$$\overline{W}_a = \sqrt[n]{H_a} = \sqrt[n]{\prod_{b=1}^n E_{ab}}. \quad (1)$$

To normalize the vector $W = [\overline{W}_1, \overline{W}_2, \dots, \overline{W}_n]^T$, the formula is

$$W_n = \frac{\overline{W}_n}{\sum_{a=1}^n \overline{W}_a}. \quad (2)$$

3.2.3. Calculating the Characteristic Root of the Matrix.

$$EW_a = H_a W_n. \quad (3)$$

Calculate the maximum characteristic root of the judgment matrix according to the formula:

$$\beta_{\max} = \sum_{a=1}^n \frac{(EW_a)}{nW_a}. \quad (4)$$

3.2.4. Conducting Consistency Inspection. According to the principle of the hierarchy method, the difference between

TABLE 1: Judgment matrix of classroom evaluation indicators.

E	F1	F2	F3	F4
F1	1	1/4	1/3	2
F2	4	1	2	3
F3	3	1/2	1	2
F4	1/2	1/3	1/2	1

the theoretical maximum eigenvalue β_{\max} and n is used to test the consistency.

$$YI = \frac{\beta_{\max} - n}{n - 1}, \quad (5)$$

$$\beta_{\max} = \frac{1}{n} \sum \frac{EW_a}{W_a}. \quad (6)$$

The value of YI can be obtained from formulas (5) and (6), and the value of YR can be obtained from the following formula: $YR = YI/RI$. Among them, RI is an average random consistency index, and RI can be found in Table 2 according to the number of indexes.

When $YR < 0.1$, the consistency of the benchmark is acceptable; otherwise, the benchmark should be revised accordingly. Similarly, we use the same method to calculate the weights of other indicators.

4. Experimental Analysis of the Direction of the Teaching Reform of Ideological and Political Courses Based on Online Open Courses

4.1. Design Analysis of Evaluation Indicators. Most of the participants in classroom teaching are teachers and students. The factors that affect classroom teaching are the level of teachers and the level of students. Analyze the teacher's level, focus on the consideration of its teaching content, teaching ability, teaching plan, and methods, and infer the teacher's teaching level based on students' feedback on the teacher's teaching attitude and teaching quality. At the same time, it also comprehensively analyzes students' learning goals, learning abilities, and learning outcomes and analyzes students' learning effects. Follow the steps below to design the classroom teaching evaluation system. The first step is the use of indicators. The second step is to solicit feedback and suggestions from teachers and students in the form of a questionnaire survey. The third step is to determine the evaluation index system.

4.2. The First Round of Consultation. Each of the 15 experts provided at least 9 key indicators for evaluating high-quality online public courses. By collecting, classifying, and merging similar data, the number of scoring indicators has been reduced. Evaluation indicators can be divided into two areas: one is the subjective evaluation of the trainees and the other refers to all kinds of objective information in the teaching process. At the same time, subjective evaluation includes five subindicators: course content, course use, learning support, learning activities, and teacher expression. Objective evaluation includes five subindicators,

TABLE 2: RI values corresponding to the number of different indicators.

Number of indicators	1	2	3	4	5	6	7	8	9
RI	0	0	0.58	0.9	1.12	1.24	1.32	1.41	1.45

TABLE 3: “Bottom-up” evaluation index system.

First-level index	Secondary indicators
Subjective evaluation	Course content
	Course use
	Learning support
	Learning activity
Objective comment	Teacher expression
	Course visits
	Number of course login users
	Number of class comments and replies
	Number of members of the learning group
	Course likes

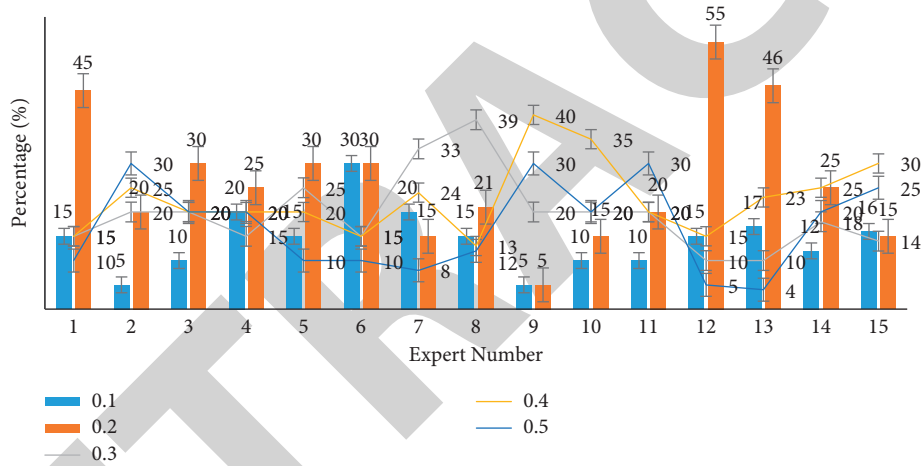


FIGURE 1: The results of the first round of consultation on the index weight of “course use.

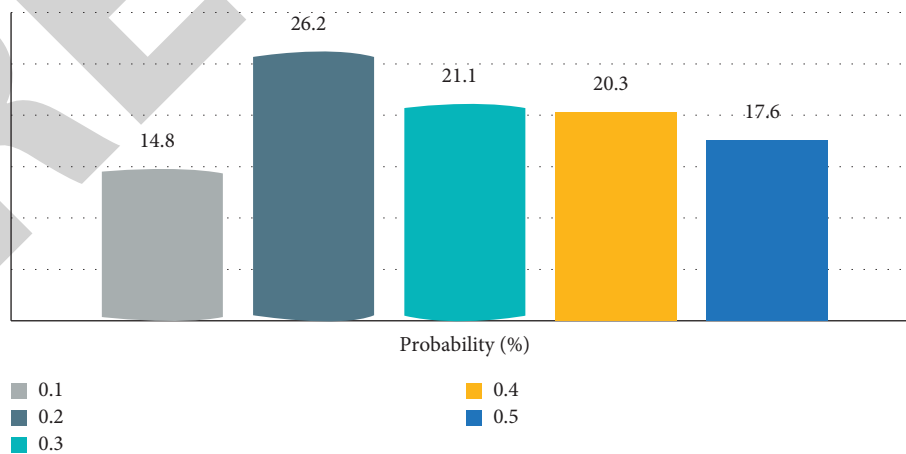


FIGURE 2: The first-round probability distribution of the index weight of “course use.

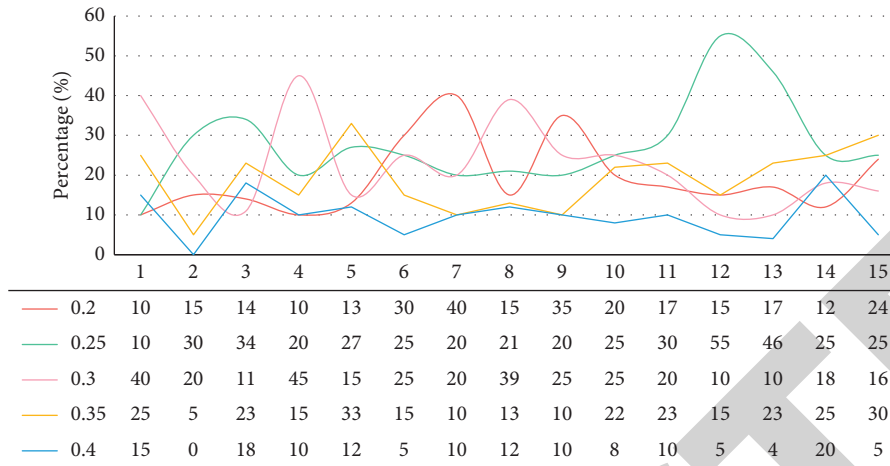


FIGURE 3: Results of the second round of consultation on the index weight of “course use.”

TABLE 4: The second-round probability distribution of “course use” indicator weights.

Weights	0.20	0.25	0.30	0.35	0.40
Probability (%)	20.3	22.7	23.9	17.2	15.9

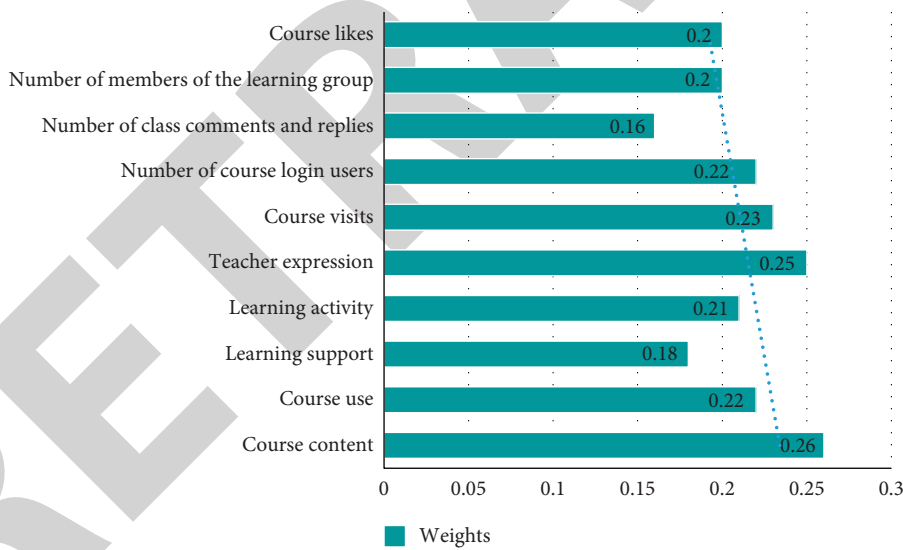


FIGURE 4: Curriculum quality evaluation index system.

such as the number of course visits, the number of users related to the course, the number of messages and responses in the course, the number of learning team members, and the number of courses offered, as shown in Table 3.

4.3. *Weights of Quality Evaluation Indicators for Online Open Courses.* The relevant weights and rules listed in Table 3 were sent to 15 experts via e-mail, and each expert independently gave the weight value of each indicator. As shown in Figure 1, the corresponding probabilities of various weights introduced by 15 experts are given as the

mean value and the distribution probability, as shown in Figure 2.

According to Figure 2, calculate the expected value of the index weight. Next, calculate other indicators. In order to provide a more accurate assessment, you can reset the weight to about 0.315 and then send it to experts for the second round of consultation, as shown in Figure 3.

The corresponding probabilities of different weights loaded by 15 experts in the second round are average values, and the weight distribution is obtained (take the “course use” indicator as an example), as shown in Table 4.

In the same way, the weight of other indicators can be calculated, and after the weight of each factor is calculated, normalization is performed, as shown in Figure 4.

5. Conclusions

Online open course evaluation has the functions of guidance, motivation, and diagnosis, which can promote the development and creation of online open courses and promote the improvement of course quality. The construction of online open courses is an important way to promote the teaching reform of higher education under the background of informatization, and it is also a teaching method that adapts to the individual development of learners. However, as a teaching model that has not yet been fully promoted, online open courses require teachers to invest more energy in teaching. The creation of relevant policies for open courses on the Internet can provide guidance for development over a period of time. Through the investigation of the implementation of relevant policies, problems in implementation can be effectively found and suggestions for continuous improvement can be provided. At present, most colleges and universities pay relatively little attention to related policies, and the main venue for online open course teaching is still colleges and universities. Only when colleges and universities attach great importance to the development of online open courses can they provide support. We hope that the various online open source evaluation index systems given in this article can provide references for online open course evaluation.

Data Availability

No data were used to support this study.

Conflicts of Interest

The author declares that there are no conflicts of interest regarding the publication of this article.

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