

## Retraction

# Retracted: Problems and Countermeasures of Ideological and Political Education Communication based on Multimedia Network

### 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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1].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.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

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.

### References

- [1] Q. Zhang, L. Yang, and Y. Wang, "Problems and Countermeasures of Ideological and Political Education Communication based on Multimedia Network," *Mathematical Problems in Engineering*, vol. 2022, Article ID 5033687, 7 pages, 2022.

## Research Article

# Problems and Countermeasures of Ideological and Political Education Communication based on Multimedia Network

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At this stage, the combination of information technology and education has continuously achieved breakthroughs, and the development of online education has ushered in a good opportunity. Especially after the outbreak of the new crown epidemic, online learning has developed rapidly. High-quality multimedia online education platforms have won a large number of users, among which are NetEase courses, MOCC, and online platforms built by domestic universities such as Peking University and Tsinghua University. After just a few years of development, these open online course platforms have become the representatives of online education platforms. With their high complementarity to offline education, they provide a useful supplement to the ideological and political teaching in schools at all levels in my country. How to make better use of the advantages of the multimedia network education platform so that it can exert a far-reaching influence in the field of ideological and political teaching has become an important subject for further innovation in this field. This paper analyzes the current situation of multimedia online teaching in colleges and universities by means of a questionnaire survey, summarizes the disadvantages, and puts forward suggestions for improvement. In view of the problems existing in multimedia teaching at this stage, we should promote the efficiency of multimedia teaching platform; training is carried out to improve teachers' ability to use multimedia; resources are coordinated and a unified data resource base is created. The results show that the combination of offline teaching and multimedia network teaching can improve students' enthusiasm in learning ideological and political courses.

## 1. Introduction

After entering the new century, "multimedia + education" has entered a new stage of development. The coverage of information terminals in schools at all levels in my country has steadily increased, and the use of multimedia-assisted teaching has become an important means for teachers to teach. In order to further promote the development of education modernization, the Chinese government fully affirmed and vigorously advocated online education at the "19th National Congress of the Communist Party of my country," emphasizing that multimedia education is the choice of the times for the development of education [1, 2]. Sorting out the current situation of ideological and political classroom teaching in the context of multimedia, and finding

and solving existing problems by summarizing the rules has become a key topic in the academic world. The main purpose of studying "multimedia + ideological and political teaching" is to innovate the form of ideological and political teaching and use information technology and multimedia to stimulate students' initiative in ideological and political learning [3, 4]. It breaks the constraints of space and time in traditional classroom teaching and creates a more free and open learning environment for students. At the same time, through the background statistics of the online teaching platform, it is also possible to truly grasp the interests of students and other aspects, so that teachers can adjust and optimize according to the feedback information. Tang Weiyuan in-depth summed up the ideological characteristics of college students in the Internet age. It is believed that

they are very different from the past in terms of subject values and group collaboration ability. Therefore, in the process of multimedia technology application, we must pay attention to improving teachers' values literacy and network security supervision, so as to minimize the negative impact of multimedia teaching. Xiao Caixia focused on the construction of the curriculum system and the interaction between online teaching and on-site teaching. She advocated improving the depth of interaction from the aspects of educational timeliness. In addition, she also stressed the need to give full play to the advantages of discipline integration in Colleges and universities, make full use of online education resources and information-based teaching methods and build a deeply integrated teaching system. Zhou Wanting introduced the value connotation of "multimedia + ideological and political classroom" and then analyzed the real situation from the perspectives of cognitive dilemma, practical dilemma, and innovation dilemma development recommendations. Her research advocates the realization of value leadership by stimulating students' intrinsic learning needs, which has a high theoretical significance for the exertion of the positive influence of multimedia.

Judging from the current situation, the development of education on the network platform has attracted the attention of many scholars, but the existing research results mainly put forward suggestions on the development of the network platform from a theoretical point of view, and lack specific analysis of students' learning situation [5, 6]. This research tendency leads to suggestions that cannot be combined with the actual needs of bachelors and lacks actual guiding value for the development of online education platforms. It can be said that from the practical level, it is still blank to analyze the actual teaching practice through data sorting and comparison. In order to fill this gap, this study invites ideological and political teachers from some colleges and universities in Fujian Province to participate in a questionnaire survey and uses the data obtained from the questionnaire as a reference for the research [7]. This way of thinking makes this paper have practical value that other research does not have, thus contributing to the development of ideological and political education in my country. Sustainability provides reference.

## 2. Definition and Main Forms of Multimedia Network Education Platform

*2.1. Definition of Multimedia Network Education Platform.* With the development of information technology, the teaching forms and functions of multimedia education platforms are undergoing rapid changes, which also makes the definition of multimedia network education platforms in the process of continuous development. At this stage, it is defined, mainly divided into two kinds of expressions in a broad sense and a narrow sense. The former includes software and hardware for multimedia teaching, while the latter refers specifically to the software system developed for this purpose [8, 9]. At present, no matter what type of multimedia network education platform, it is generally

composed of the following parts, that is, three systems responsible for development, teaching, and management. These three systems are independent and interrelated. In contemporary society, the scale and quality of multimedia network education platforms have become one of the important standards for measuring the development level of distance education. In the actual application process, the teaching system and management system are the most closely linked to users, and the level of development determines the quality and experience level [10–12]. In layman's terms, the multimedia network education platform is also a platform for online training using multimedia technology. It is like a classroom responsible for teaching and training in real life, except that the teaching place has become a network information terminal, and the face-to-face teaching mode has also become To connect through the network.

*2.2. Main Forms of Multimedia Network Education Platform.* With the gradual deepening of the integration of multimedia technology and Internet technology, the multimedia network education platform has shown a vigorous development momentum in recent years, and online learning has become an important learning method for students [13–15]. To classify from the strength of function and interactivity, the current multimedia education network platforms are mainly divided into the following types.

*2.2.1. On-Demand Teaching Platform.* On-demand teaching platform is the earliest form. The teacher records the course explanation and uploads the corresponding audio or video to the database of the teaching platform. Students can choose the content they want to watch according to their needs for on-demand viewing. After the study is over, follow the teacher's requirements to conduct related materials finding and completion of homework. The main feature of this platform is that the teaching resources uploaded by teachers are the core, and students can watch them repeatedly during the learning process. However, due to the poor interaction, it is difficult to guarantee the students' involvement and learning effect in the learning process.

In the early stage of the development of online education, the on-demand teaching platform mainly realized the rapid delivery of teaching resources. Students can broadcast audio and video courseware at any time and anywhere, check teaching content such as electronic teaching plans, and complete online homework. Its main feature is centered on courseware, and the online electronic display of educational resources emphasizes management.

*2.2.2. Real-Time Interactive Teaching Platform.* A real-time interactive teaching platform is the mainstream mode in this field at this stage. With the development of information technology, network bandwidth has increased rapidly, laying an important foundation for the design and use of real-time interactive teaching platforms. This kind of teaching platform has a very wide range of use, and forms such as video

conferences and online chats that are closely integrated with people's lives can be incorporated into this form. The advantage of this platform is that it can realize the combination of online and offline learning and can carry out online discussions and online communication with teachers. This kind of platform helps to realize the student's dominant position in the learning process and enhance their interest in learning.

**2.2.3. Socialized Teaching Platform.** The socialized teaching platform was born to meet the socialized learning needs of the people. It integrates the functions of multiple software such as smart search and Weibo to better comply with the global development trend of online learning. On this platform, learners can build their own learning space and use the network to connect with other partners [16, 17]. Through similar keywords, a learning and research team similar to an online community is formed to realize the sublimation of collective wisdom. This model is now gradually becoming the focus of R&D and design.

### 3. Research Design

**3.1. Research Objectives.** The combination of information technology and education has continuously changed the mode of contemporary education. At the same time, the changes in students' thinking also require us to clarify the main characteristics and development trends of education at this stage. The rapid development of multimedia network platforms has provided us with more options for developing ideological and political education, but it has also made our work face huge challenges. The goal of this research is to sort out the status quo of ideological and political teaching by multimedia network teaching platforms. By combing the status quo to find the problems in the process of combining the two in the emergence stage, and based on the specific opinions of the survey objects and the judgment of the overall development trend, perfect suggestions are put forward.

**3.2. Research Methods.** This study uses a combination of literature analysis and questionnaire survey. The former is a comparative analysis of relevant literature published in recent years through digital literature and paper literature and sorts out their main points. The questionnaire survey is to make an electronic questionnaire to understand the attitudes and cognitions of ideological and political teachers on the multimedia network education platform at the current stage, and then conduct further analysis based on these data. There are 14 questions in the questionnaire. The first two questions are about the understanding of the teacher's natural situation, and the following questions are divided into three aspects: (1) the use of multimedia teaching platforms. (2) Awareness of multimedia teaching platform. (3) Suggestions for the development of multimedia teaching platforms (Table 1). Although many similar studies have adopted the questionnaire survey method, the focus of the questionnaire questions is different. Some scholars have determined the platform in their research, which improves the accuracy of

the questionnaire, but it is difficult to guarantee the breadth. Some scholars focus their investigations on college teachers and put forward suggestions for the creation of cyberspace by judging teachers' experiences and judging the development trend of ideological and political teaching in colleges and universities. The object of the questionnaire survey in this study is mainly concentrated among students, so that the focus of the survey is on the actual learning effect, thus producing better practical guidance value.

**3.3. Reliability Verification.** In terms of questionnaire reliability verification, this study uses the  $\alpha$  reliability coefficient method. The reliability value of the questionnaire is calculated to be 0.86, which meets the reliability standard, which proves that the data obtained in this questionnaire is highly scientific.

$$\alpha = \left[ \frac{k}{(k-1)} \right] * \left[ \frac{1 - (\sum Si^2)}{St^2} \right]. \quad (1)$$

It can be seen from the formula (1) that the reason for choosing this reliability method is that it mainly measures whether the scores of each item in the questionnaire have strong consistency, so as to better determine the rationality of the item.

### 4. Results and Discussion

#### 4.1. Results

**4.1.1. Frequency of Use of Multimedia Teaching Platform.** With the government's increasing emphasis on the introduction of information technology into campuses, most schools in our country have been able to use multimedia teaching platforms in ideological and political teaching and continue to improve their technical level in this field through information technology training for teachers [18–20].

It can be seen from Figure 1 that among the 88 ideological and political teachers who participated in the questionnaire response, 65 chose "often use" and 14 chose "never use." It can be seen that ideological and political teachers maintain a very high utilization rate on the multimedia teaching platform at this stage. At the same time, the answer to the question of whether the multimedia courseware of the multimedia teaching platform can adhere to the classroom teaching center has not achieved satisfactory results.

It can be seen from Figure 2 that among the 88 teachers who participated in the questionnaire survey, only a very small number of ideological and political teachers can only ensure that a small number of multimedia teaching platforms are used around the center of the classroom, while those that cannot be guaranteed account for half of the total. This shows that there is a big misunderstanding in the use of multimedia network teaching platforms at this stage, and the situation of turning the cart before the horse is more serious. Some teachers regard the use of the multimedia platform as a task in the teaching process and play the courseware step by

TABLE 1: Distribution of questionnaire questionnaires ( $n = 14$ ).

The aspect of the problem	Number of questions	The proportion (%)
Natural situation of teachers	2	14.3
The use of multimedia teaching platform	3	21.4
Awareness of multimedia teaching platform	4	28.6
Suggestions for the development of multimedia teaching platform	5	35.7

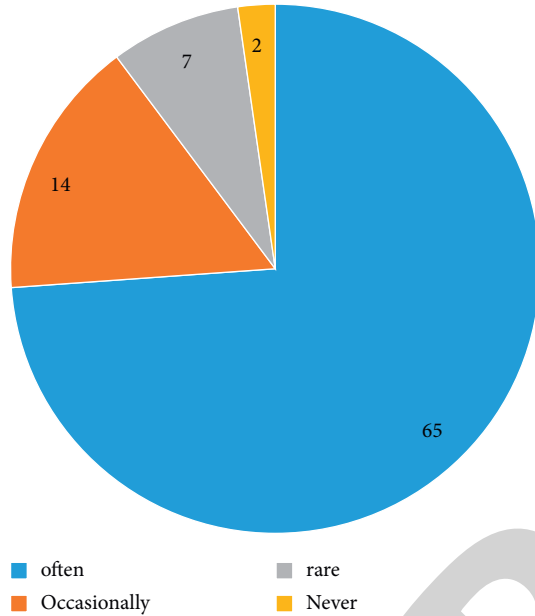


FIGURE 1: The frequency of use of the teaching platform by ideological and political teachers.

step. Not only can it not play a role in focusing on the teaching theme, but it is also likely to distract students, which will eventually backfire.

**4.1.2. Perception of Multimedia Teaching Platform.** Whether or not to have a correct understanding of the multimedia network teaching platform is the basis for improving the utilization efficiency [21]. In the survey on the cognition situation, many ideological and political teachers did not obtain scientific cognition in this field, which seriously affected the function of the multimedia teaching platform. In the questionnaire, questions were asked from the perspective of the use of the multimedia platform, whether to participate in the production of courseware, whether it is compatible with other teaching methods, and whether it can interact with students through the multimedia platform. The results obtained are shown in Table 2.

It can be seen from Table 2 that at this stage, most ideological and political teachers have not really invested their own energy in the process of using multimedia teaching in the classroom. Whether it is the production of courseware, the matching of teaching methods, and the interaction with students, they are relatively Teachers with negative attitudes are the majority. At the same time, 23.9% of ideological and political teachers regard the multimedia teaching platform purely as a gimmick for open classes and do not use it in daily teaching [22].

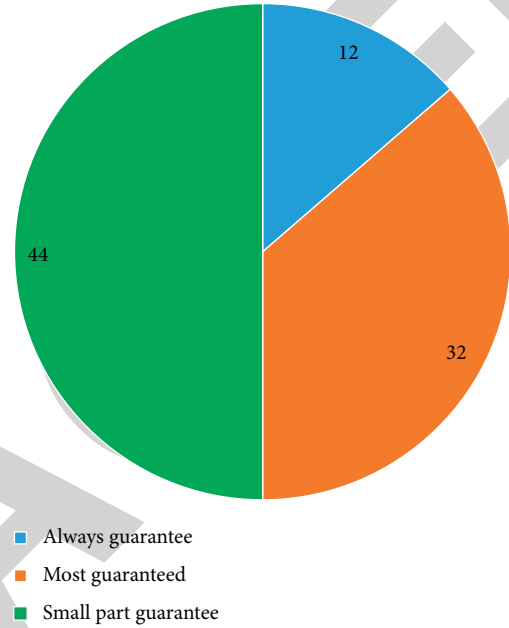


FIGURE 2: Whether ideological and political teachers can adhere to the teaching goal as the center in the process of using the teaching platform.

**4.1.3. Suggestions for the Development of Multimedia Teaching Platforms.** The use of multimedia teaching platform is to better promote the development of contemporary ideological and political teaching, and the direction of its development is the most decisive for frontline teachers. The survey data in this area is shown in Figure 3.

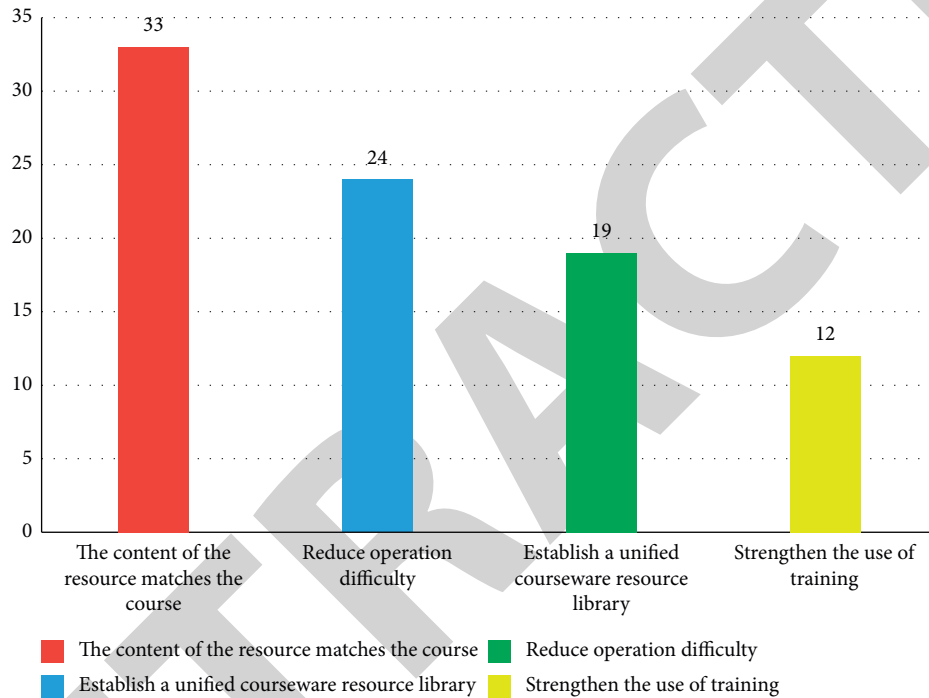
As can be seen from Figure 3, in the current stage of the development of multimedia teaching platforms, ideological and political teachers believe that the most important thing to improve is the degree of matching between resource content and courses, followed by reducing the difficulty of platform operation, and then establishing a unified visible resource library and strengthening use training. It shows that although the multimedia teaching platform has achieved relatively rapid development in recent years, there is still a certain distance from the teacher's expectations in terms of resource reserve and operation.

## 4.2. Discussion

**4.2.1. Promote the Scientific Improvement of the Use Efficiency of the Multimedia Teaching Platform.** Practice has proved that the multimedia teaching platform has a strong positive significance in improving the effect of ideological and political teaching. But it must be clear that multimedia is

TABLE 2: Survey results of perception of multimedia teaching platform.

Problem	Options	Number	The proportion (%)
Multimedia platform use occasions	Public class	21	23.9
	Daily teaching	67	76.1
Whether to participate in courseware production	Yes	18	20.5
	No	70	79.5
Is it compatible with other teaching methods	Yes	30	34.1
	No	58	65.1
Can you interact with students through a multimedia platform	Yes	36	40.9
	No	52	59.1

FIGURE 3: Ideological and political teachers' suggestions for the development of multimedia teaching platforms ( $n = 88$ ).

only a means of assisting teaching, serving the center of teaching content. The key to improving the efficiency of the teaching platform is to see whether the central principle of serving to teach can be adhered to. The majority of ideological and political teachers should take the initiative to conform to this trend of the times, and in-depth study of the way to combine multimedia teaching with classroom content so that they can better serve the teaching goals.

#### 4.2.2. Carry Out Training to Improve Teachers' Ability to Use.

At this stage, most of the ideological and political teachers' multimedia use ability has fallen behind the development of the teaching platform, and even many teachers still stay at the traditional slide show level. It is recommended that teacher training departments in various regions actively investigate and combine the actual level of information technology equipment in schools in the region to carry out training for teachers in courseware production, resource collection, and broadcast settings, so as to improve

ideological and political teachers' multimedia teaching platform in an all-round way. Overall capability in terms of aspects.

**4.2.3. Coordinate Resources and Create a Unified Data Resource Library.** Educational authorities should take up the responsibility of bridges, make the teaching status of excellent teachers into network resources for uploading, and strengthen the review and management of uploaded teaching resources. Not only allows excellent resources to be promoted, but also eliminates bad resources in the first time. Reducing the wasted energy of frontline teachers in resource selection can also give teachers a good example.

## 5. Conclusion

In the traditional teaching mode, the information terminal is simply an auxiliary tool for teachers to carry out teaching, and some teachers even have dispensable misunderstandings

about it. However, as the degree of integration of the two becomes closer, multimedia teaching has entered the classroom, which has become an important feature of contemporary education development, and it is also an issue that cannot be ignored in future development. The development of the multimedia network teaching platform has brought a very far-reaching impact on the development of ideological and political teaching. Strengthening the scientific planning and management of related fields and avoiding the waste of network resources has become the focus of most ideological and political teachers. Actively promote the active role of the multimedia network teaching platform, in addition to focusing on the quality and value review of various teaching resources, but also actively promoting the sharing and promotion of excellent teaching resources to achieve the overall improvement of the quality of ideological and political teaching. In the production of teaching resources, we must strive to meet the diverse needs of students, focus on integrating theory with practice, and ultimately help students develop the habit of lifelong learning through the creation of a personalized learning space. The significance of this article is that it clearly points out the problems existing in the current multimedia teaching in Colleges and universities and puts forward targeted countermeasures. It plays a positive role in improving the quality of multimedia teaching in Colleges and universities, improving teachers' multimedia teaching level, and improving students' learning experience.

### Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

### Conflicts of Interest

The authors declare that there are no conflicts of interest.

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