



# Mixed Guidance Mode of Undergraduate Thesis Based on Internet Plus

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**Abstract.** There are some problems for undergraduate thesis in private colleges, such as poor foundation of students, insufficient instructors, poor conditions of scientific research, lack of innovation of topics. This paper proposes a mixed guidance mode of graduation thesis based on Internet Plus, information technology and school enterprise cooperation. This paper indicates that this model is helpful for improving the quality of undergraduate thesis.

**Keywords:** undergraduate thesis · Internet Plus · school enterprise cooperation

## 1 Introduction

Undergraduate thesis is a comprehensive, research and practical training link that students carry out before graduation on the basis of systematically mastering basic knowledge, basic theory and basic skills. Graduation thesis is one of the important links of professional teaching plan. It is a comprehensive assessment of students' knowledge and ability and the basis for students to comprehensively apply what they have learned [1–4].

The teaching practice process of analysing and solving problems independently based on basic theoretical knowledge and basic skills. The graduation thesis is required to be practical, with appropriate topics, conclusive arguments, full and accurate arguments and correct reasoning.

The quality of undergraduate thesis is also an important evaluation factor for the overall level of undergraduate teaching in a university. The importance of undergraduate thesis determines that undergraduate colleges training applied talents have to pay enough attention to this work. Even so, due to various reasons, there are following common problems in the undergraduate thesis of private undergraduate colleges, and the quality of talent training is difficult to be guaranteed. Internet Plus education has developed greatly both at home and abroad. Internet Plus technology brings new ideas for higher occupation education [5–10]. With the continuous popularization of network technology and multimedia, the new management mode of College Students' graduation thesis has incomparable advantages of manual management, which will greatly improve the efficiency of thesis management. This paper discusses the application of information technology on undergraduate thesis based on Internet Plus school enterprise collaboration in private undergraduate colleges.

## **2 Ways to Improve the Quality of Undergraduate Thesis in Private Colleges and Universities**

Compared with public universities, private colleges have the following problems which are more serious. There are still a considerable number of students whose have poor comprehensive qualities and are difficult to complete their undergraduate thesis. The number of teachers who meet the requirements of graduation thesis instructors is seriously insufficient. The time of graduation practice, employment, postgraduate entrance examination and graduation thesis overlap. The paper time is difficult to be guaranteed. Due to the limited total number of topics, it is difficult for many students to choose topics that meet their specialties and interests.

In view of the current situation of private colleges and the objective existence of the above problems, in order to ensure and improve the quality of undergraduate thesis and make the graduation thesis truly achieve the purpose of testing and improving students' comprehensive ability, we have made some reform attempts in combination with the training goal of electronic information professionals.

### **2.1 Improving the Quality of Graduation Thesis Based on School Enterprise Cooperation**

School enterprise cooperation is an effective means to cultivate students' applied talents. School enterprise cooperation guiding graduation thesis refers to a way in which schools and enterprises jointly participate in the graduation thesis process [4]. The school enterprise cooperation that guidance graduation thesis of electronic information undergraduate in Guangzhou College of Technology and Business adopts the double tutor system. The topic of the thesis is drawn up by the enterprise tutor according to the students' professional direction, and the students go to the enterprise to do the thesis. The enterprise tutor is responsible for the management of students during their thesis in the enterprise and the technical guidance of graduation thesis, including work design and production, experimental data analysis and processing, software design and debugging, thesis writing guidance, etc. The tutor in the university is responsible for contacting students, understanding the progress of students' graduation thesis, ensuring that the progress of graduation thesis is consistent with that in the university. At the same time, he is responsible for the format specification, theoretical analysis, graduation thesis defence, integrating the opinions of enterprise tutors, giving students' graduation thesis results, archiving graduation thesis materials, etc.

### **2.2 Strengthening the Guidance of Graduation Thesis Based on Internet Plus**

The Internet Plus form is a powerful function of the Internet's mobile ubiquitous computing, cloud computing, big data and intelligent technology support. Internet Plus realizes the resource sharing of graduation design through intelligent interconnection and promotes the efficiency of graduation design by using big data analysis. Through big data, the weak points of each student's knowledge are analysed to accurately find problems and provide effective guidance, which greatly improves the quality of graduation

design. Information technology can help students improve their comprehensive quality and development potential. It will inject Internet thinking into the guidance of university graduation thesis, and change the practice of guiding the thesis with the Internet thinking.

### **2.3 Improving Management Efficiency Based on Network Information Technology**

The undergraduate thesis is a kind of teaching with long teaching time, strong comprehensiveness of knowledge and open teaching content Links, which includes topic declaration, topic review, mutual selection between teachers and students, task assignment, investigation and research, and literature review. Each stage of thesis writing and defence involves multiple stages of thesis design and implementation. To different management elements, management processes and work priorities, these have increased difficulty and complexity. Without the help of network information technology, it is difficult to improve the efficiency. Therefore, we must make full use of the means of network information technology to improve the management of graduation thesis.

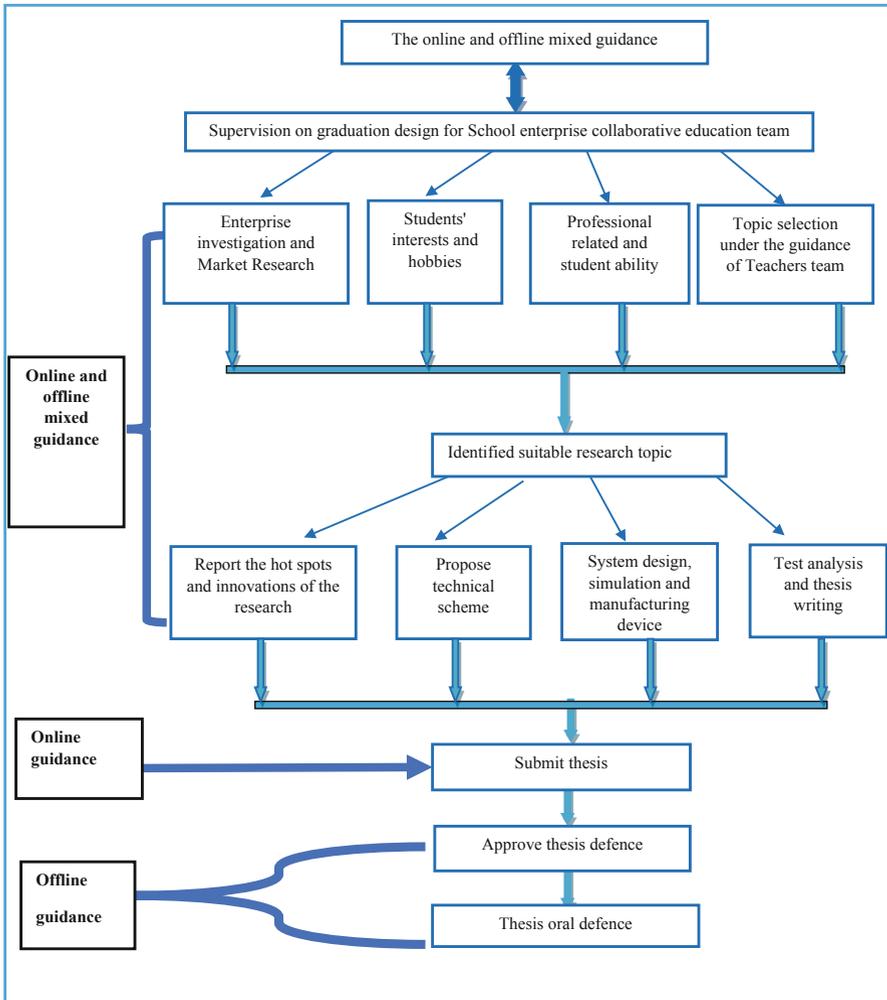
## **3 The Mixed Guidance Mode of Graduation Thesis Based on Internet Plus**

Based on Internet Plus, information technology and school enterprise collaboration, the mixed guidance mode of graduation thesis can solve the quality problems of undergraduate thesis. With the new trend of Internet Plus in the network platform, higher education has broken through the closed physical space, and changed the teaching environment, teaching contents and teaching methods, standardized the guidance links of graduation thesis. This mode strengthens the dynamic supervision of graduation thesis process, and promoted the information management of graduation thesis. Figure 1 shows the mixed guidance mode of graduation thesis based on Internet Plus, information technology and school enterprise collaboration.

The mixed guidance mode of graduation thesis combines the advantages of centralized learning and independent writing, which not only effectively mobilizes students' enthusiasm for writing graduation thesis and meets students' diverse choices, but also controls the professional relevance of graduation thesis, strengthens the supervision and management in the process of graduation thesis, and moves the communication between the two sides online to realize convenient contact without time difference and zero distance. It greatly saves the communication cost of both sides. The mixed guidance mode has the following advantages.

The application of Internet and information technology is simple and fast, which can stimulate students' creative enthusiasm through mutual discussion and interest in writing.

Cooperative enterprises have many engineers, which can make up for the shortage of teachers, and better solve the contradiction of the shortage of graduation thesis instructors in private colleges and universities.



**Fig. 1.** The mixed guidance mode of graduation thesis based on Internet Plus

The topic selection of graduation thesis is closely combined with the majors learned by students, which is in line with the cultivation of professional talents. When students go to enterprises to write dissertations, they can contact many cutting-edge consulting of electronic technology, combine the problems in the production process of enterprises with the professional knowledge learned, and better deepen their understanding of the knowledge learned.

The thesis topics drawn up by enterprise tutors usually require students to design and produce physical objects. Through graduation design, students' design ability and practical ability are greatly improved.

The resource conditions of the enterprise are superior to those in the school. The enterprise tutors have rich practical experience, strict management and guidance in place. Students focus on their papers in the enterprise and the time of their papers is guaranteed.

This mode strictly controls the management of graduation thesis topics, guidance, defence, performance evaluation and other links. The graduation thesis is arranged and selected as early as possible. Students are well prepared. Teachers should strictly guide and organize the public defence of graduation thesis. The management level of graduation thesis is strengthened. The quality of students' graduation thesis is significantly improved.

## 4 Conclusion

Graduation thesis is a comprehensive assessment of undergraduate education and teaching achievements. In order to effectively improve the quality of talent training, we should make use of the Internet, information technology and school enterprise collaborative education, and comprehensively consider the quality of topic selection, opening task, special inspection, process control and other links to form the teaching management of the college, thesis guidance and quality monitoring system. It is essential to improve the quality of undergraduate theses in private colleges. To be sure, making use of the superior resource advantages of enterprises and school enterprise cooperation to guide undergraduate thesis is a more effective measure to solve the factors affecting the quality of undergraduate thesis, such as the shortage of professional teachers in private colleges, the conflict of time, poor scientific research conditions and the lack of financial support.

In conclusion, we have carried out the mixed guidance mode of graduation thesis based on Internet Plus, information technology and school enterprise collaboration. Based on the Internet Plus, the interactive platform of universities, enterprises, tutors and students has been constructed, which strengthens the management of students' graduation thesis. The mixed guidance mode centres the resources of enterprises, and solves the supervision problems in the process of graduation thesis.

**Acknowledgments.** This work was supported by 2021 Higher Education Department of the Ministry of Education Industry-University Cooperation and Education Project (No. 202101138003), 2021 Quality Engineering Construction Project of Guangzhou College of Technology and Business (No. 87), 2020 Guangdong Province Higher Education Teaching Reform Project (No. 20), 2020 Curriculum ideological and Political Education project (Electronic Information Engineering) of Guangzhou College of Technology and Business, 2019 specialty construction project on Electronic Information Engineering" of Guangzhou College of Technology and Business (Grants No. TS201902), 2018 Guangdong Province Higher Education Teaching Reform Project, (No. 659).

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