Practice and Research on Cultivating the Innovative Ability of Higher Vocational Students with Professional Public Elective Course as Carrier

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Abstract: In China's higher vocational schools, public elective courses play an important role in the diversified development and individualized development of students. At the same time, public elective courses can also expand the knowledge of students and improve the overall quality of students. At present, the public electives of some higher vocational colleges do not meet the requirements for opening. In response to this problem, this article elaborates on the current status and problems of the traditional public elective courses and online public elective courses in higher vocational colleges from the aspects of schools, teachers and students. The status quo of the innovation ability of vocational students has been analyzed. Higher vocational colleges should set up professional public elective courses. Its importance and necessity have been elaborated. The effect of this theory has been verified by practice.

1. Introduction

In China, public elective courses have gradually become an indispensable and important curriculum system in higher education. A variety of public elective courses play an important role in the development of students' diverse and individualized development. At the same time, they can also expand students' knowledge and improve their overall quality [1].

Whether in undergraduate or higher vocational colleges, various public elective courses will be offered. The content of these courses includes theoretical knowledge and practical content. These courses cover all areas of study, life, sports, activities, and work. Therefore, these courses have become an indispensable part of the majority of college students' after-school life. However, compared with the undergraduate students, the students in higher vocational colleges are obviously insufficient in their ability to learn initiative and self-control [2, 3]. As a result, many students come to class in order to make the credits, so the purpose of public class selection cannot be achieved [4, 5]. In recent years, with the continuous improvement of the level of informatization teaching, various online public elective courses have followed, and many higher vocational colleges have also introduced a variety of online public elective courses. But no one cares: Can these online courses really play their due role for higher vocational students.

The online public elective course has brought a huge impact on the public elective course system of higher vocational colleges. The role of public electives in the higher vocational colleges is becoming weaker. In response to this phenomenon, this paper proposes that professional class elective courses should be offered and use it as a carrier to cultivate the innovative ability of some higher vocational students. At the same time, we will continue to practice, so that we can play a greater role in the elective course.

2. The Status Quo of Public Elective Courses

2.1 The Status Quo of Traditional Public Elective Courses.

The teaching content of many public elective courses has remained unchanged for almost a few years or even ten years, and the teaching methods are not new. This is due to the following reasons:

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Most schools, teachers, and students do not pay attention to public elections, schools to cope with inspections, teachers to complete tasks, and students to earn credits. Moreover, this phenomenon is more obvious because the students' self-learning ability in higher vocational colleges is not high, the awareness of rights protection is weak, and the rights are not set in place.

At present, scholars have conducted a comprehensive investigation of issues related to public elective courses in some universities. Judging from the survey results, the vast majority of students think that the setting of public elective courses is of great significance and there is a need for existence, indicating that the vast majority of students still hope to expand their knowledge and improve their overall quality through public elective courses. However, a large number of students believe that many of the public elective courses are old and new, and they are dissatisfied with the many public elective courses in the current school. The reasons for the above problems are roughly the following.

- 1) Most schools do not pay attention to the public election class. The mechanism for the public elective course is not perfect. There is no incentive for the students who like the course. There is no punishment for the students who hate the course. There is no real judgment on whether the course should be opened. Some courses that are truly meaningful to students tend to stop the course because of the low number of students who are tired of learning. Some of the less meaningful courses are selected because the teachers are not easy to pass. Some courses even have more than one hundred people attending classes at the same time, which leads to a less effective teaching effect. This kind of course can be opened for a long time, and the instructors will get more rewards because of the large number of students.
- 2) The instructors lacked the ideological understanding. They only regarded the public elective course as a carrier to complete the teaching workload, but did not recognize the importance of the public elective course to college students. At the same time, they did not regard the public elective course as a carrier to improve students' comprehensive ability. Many professional teachers believe that public electives are an insignificant course that has nothing to do with improving student abilities. Therefore, their participation in the enthusiasm is not high, and even look down on those teachers who open public elections, that they do not have the ability to teach professional courses.
- 3) Students are less self-conscious, and most students are unclear about their own knowledge structure and talent requirements. They do not understand the selected courses, have no plans for class selection, and are blind and random.

2.2 The Status Quo of Online Public Elective Courses.

With the improvement of the requirements of informatization classroom teaching, the types of online courses, especially online public elective courses, have increased geometrically. The acceleration of the online course construction process is conducive to sharing curriculum resources, assisting practical teaching work, facilitating teacher-student interaction, and improving teaching quality to a certain extent. However, due to the poor autonomy of higher vocational students, the online public elective courses have a big problem when they are opened in higher vocational colleges [6, 7]. The reasons for the above problems are roughly the following.

- 1) The online public elective course management supervision mechanism is insufficient. It is too strict to require high-achieving students with insufficient self-awareness to participate in the online public elective courses. Although there are a number of companies that have launched online public elective courses that have incorporated some anti-cheating mechanisms, these technologies often lag behind existing network technology. Students can crack through simple operations. Such easy-to-complete online public elective courses are often favored by students, so the school will increase the number of allowed courses, which form a vicious circle invisibly, resulting in a worse teaching effect, and the effect of public elective courses is even less reflected.
- 2) The evaluation mechanism of the online public elective course is not perfect. After the school buys out the course, the study of the course is completely handed over to the network, including the final score, and the lack of supervision mechanism for online learning, exams, etc., results in the student's final score is completely out of proportion with the student's expected level. As a result,

students who actually participate in meaningful public electives are not as good as those who choose online public electives. This phenomenon has led to an imbalance in the psychology of positive students, and even causes students who want to actively study upwards to gradually fall, burying their ability to innovate or professional practice.

2.3 The Status Quo of Professional Public Elective Courses.

At present, there are not many colleges and universities that can offer similar professional elective courses for relevant professional students, especially the public elective courses for engineering majors. In higher vocational colleges, most vocational colleges do not have professional elective courses. All professional courses are pre-set. Students have no autonomy in choosing courses. The only choice for students is public election. However, at present, colleges and universities attach importance to the cultivation of humanities and artistic qualities of engineering students. Therefore, most of the public elective courses are humanities, art, and sports. Therefore, students cannot improve their professional development ability through independent courses. Therefore, most engineering students in higher vocational colleges cannot choose their own professional courses. They can only learn relatively old professional courses through professional courses arranged by the school. As a result, they are not professionally able to enhance their innovative ability through other means.

3. The Status Quo of Innovation Ability of Vocational Students

With the "mass entrepreneurship, innovation" was proposed by Premier Li Keqiang, Chinese universities have begun to attach importance to the cultivation of students' innovative ability. The various forms of cultivation have played a certain role. At present, the defects in the cultivation of students' innovative ability in higher vocational colleges are mainly reflected in the following aspects [8, 9, 10].

- 1) Higher vocational students have insufficient awareness of innovation. Due to the influence of education environment and mode, especially for higher vocational students whose theoretical academic performance is relatively poor, their creative thinking ability is obviously insufficient. More is the thinking and test-taking mode of veneer, and the sense of innovation is generally lacking. Some scholars have found that there are very few students who participate in innovation activities in higher vocational schools. Even if there are many students, they only have three or five minutes of heat. Many innovative activities are superficial projects, and it is difficult to achieve the desired results.
- 2) Vocational students have insufficient innovation ability. At present, most vocational colleges only cultivate students' innovative ability through so-called innovative training program projects. However, due to the lack of innovation or scientific research ability of vocational students, these projects have gradually become the projects that the instructors themselves do. Therefore, the effect of cultivating its innovative ability cannot be achieved.
- 3) The level of difference between students is obvious. At present, higher vocational colleges attach great importance to skill competitions. However, due to the insufficiency of students' general ability, they can only invest a large amount of human and material resources into the cultivation of a very small number of students. The input and output are obviously not proportional. For the so-called school popularity, even if you know this phenomenon, it only shows more serious. Therefore, how to use the same input to expand a small number of students to train more students, how to reduce the level of differences between students has become the focus of current practice research.
- 4) The school's innovative education system is not perfect. Many higher vocational colleges do not have a complete innovative education system and system, and many of them are just superficial works to cope with inspections. Without the innovative education of the top-level design, the front-line teachers will encounter various difficulties in implementation, which will lead many teachers to lack confidence and rush.

4. The Status Quo of Innovation Ability of Vocational Students

4.1 Professional Public Electives and Students' Innovative Ability.

At present, it is difficult for higher vocational students, especially engineering students, to cultivate their professional ability from other ways. The traditional professional teaching is generally outdated and cannot keep up with the development of the times. It is difficult for students to use this knowledge after graduation. Sometimes it also gives students a mindset, which makes it difficult for most students to innovate in their profession after work. Although in recent years, major universities have set off a wave of innovation and innovation in innovation and entrepreneurship education, it is not easy to reform or innovate a teaching plan that has been going on for a long time. However, the cultivation and promotion of students' innovative ability is imminent. The setting of public electives is not as complicated as traditional courses, and increasing the number of public electives has no effect on the teaching plan. Therefore, the purpose of rapidly increasing students' innovation and entrepreneurship courses can be achieved by setting or increasing professional public elective courses.

In traditional teaching, teachers generally follow the teaching materials or teaching plans to follow the instructions. For example, when the teacher is in the previous professional development course, in order to facilitate the teaching, the teacher usually sets several design directions, so that the students can think about completing the relevant tasks according to the teacher's thinking mode. This does not have much benefit in cultivating students' innovative thinking. But the public electives are different. Flexible assessment methods and relatively free course arrangements can bring unlimited imagination and innovation to the classroom. The same teaching content can give students sufficient time to think, and even find out the materials outside the classroom, which can make the same teaching task spread. In many different directions, students can learn and expand different professional knowledge according to their own imaginations, and finally complete related tasks, which will benefit students' innovative ability development.

4.2 Improvement Measures for Professional Public Elective Courses.

In view of the various problems in the elective courses of higher vocational colleges, combined with the current situation of the serious lack of innovation ability of higher vocational students, it is obviously a low-cost and high-reward way to open some professional public elective courses to cultivate students' innovative ability. However, how to open a professional elective course and how to teach it can really play a role in cultivating the innovative ability of higher vocational students. It is also worthwhile to study in practice. This paper puts forward the following suggestions in combination with its own practice for reference.

- 1) Student active learning mode: Students participate in active learning, and his learning content has a higher average retention rate, far exceeding the learning effect of passive learning. Compared with ordinary professional courses, professional elective courses are relatively flexible in terms of assessment and teaching. With its unique advantages, professional elective courses can focus on students' active learning in teaching, and adopt a teaching mode based on discussion, practice and communication. The teaching process should be based on students.
- 2) Network information application: If you put the entire process of the course online, you will encounter the various problems mentioned before. However, if only some of the difficult points are provided to students for extracurricular self-learning in the form of online courses, it is obviously very effective. Especially if these online courses are expressed in the form of expressions of interest to students, such as animations and games, the enthusiasm of students' self-learning will increase significantly, which will lead to a significant improvement in learning effects and truly play the role of independent learning.
- 3) Assessment and evaluation: Elective courses have their own unique advantages in curriculum assessment and evaluation. Compared with traditional professional courses, it is more flexible and changeable. For example, the assessment and evaluation methods of professional elective courses can

obviously be separated from the traditional theoretical examinations, and adopt a multi-faceted comprehensive assessment mode. For example, teachers can comprehensively consider the self-fulfillment rate and completion effect of each project, the network self-study completion rate and completion effect, mutual evaluation between students, and results reporting. Therefore, the professional electives that leave the exam are equally attractive when students are taking classes.

5. Summary

For higher vocational students, compared with undergraduate students, their ability to learn initiative and self-control is obviously insufficient. Many times, they do not have the purpose of opening a public elective course. Facing the current situation of the flood of online public elective courses, this paper proposes the use of professional public elective courses to cultivate the innovative ability of higher vocational students, and practice it to verify its effectiveness and achieve the expected results.

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