



Discussion on Post Practice of Civil Engineering Specialty Based on Post Core Professional Ability

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Abstract. Post practice is a very key practical teaching link in the teaching process of higher vocational education, but in the real implementation process, due to the influence of various factors, students have many problems in post practice. Based on the principle of truly realizing the purpose of post practice, this paper focuses on the students' mastering the core professional ability of the post, discusses the possibility of its realization from multiple angles, puts forward some measures, and highlights some methods that civil engineering majors can promote students' post ability for reference.

Keywords: post core competence · Post practice · Civil engineering discipline · measures

1 Introduction

Post practice is a very important practical teaching link in the process of higher vocational teaching. It is required to complete certain production tasks by using the basic professional knowledge and skills learned [1–3], so as to promote the further improvement of students' post vocational skills. At present, there are various training modes of post practice. Each college has its own post practice mode, but its final training core is basically the same, Is the need to highlight the training of students' professional ability. It may be tortuous in the process of achieving the core objectives, and various difficult and miscellaneous problems will be encountered [4–6]. Now, the main problems are analyzed, and relevant solutions are put forward, so as to provide reference for better carrying out post practice of Civil Engineering Specialty in the future.

2 Analysis of Main Problems

2.1 Students Have Insufficient Understanding of Their Posts and High Expectations

One of the purposes of post internship is to improve students' post professional ability. However, many students can't keep a correct attitude towards their own post, or even

focus on multiple purposes. For example, when the post is a construction worker, they suddenly apply to the unit to do the cost. After two days, they think it is inappropriate, and then propose to go back to the construction. They soon apply for other posts. They have insufficient understanding of their professional knowledge and ability and the initial matching of the post, and can't concentrate on doing it well. As a result, everything is known, but it is only half a barrel of water. Various problems occur every year. For students, it is simply unable to improve their professional ability in their own posts, and it is also a waste of resources for their units.

2.2 Some Internship Positions Are Incompatible with Their Majors

Some students are very confused when they choose internship positions, and their motivation for internship is not pure. When they choose an internship enterprise, individual students directly follow the trend, not according to their actual situation and professional requirements. They will go wherever they go. When they arrive at the unit, they are assigned to various project departments. When they arrive at the project department, they find that they do not adapt to the assigned positions, and then they blindly avoid changing positions or even leave. There is no way to adapt to the post and improve their professional ability; Or some people feel that they are too hard to work in this industry, so they directly choose to work in related or other positions unrelated to their major. For example, students majoring in civil engineering apply for computer sales, and the unit they find has nothing to do with their major. Let alone the so-called training of students' post core professional ability, they simply can not achieve the purpose of talent training.

2.3 The Enterprise Has Little Efforts to Cultivate Students and Its Positioning is Unclear

Considering the uncertainty of interns, if an enterprise makes great efforts to train students, and eventually the students leave the unit after graduation, it will be a great loss for the enterprise. Therefore, the vast majority of enterprises will not vigorously train interns before interns graduate. In particular, the supervision units basically believe that students' coming to practice is a transition, and they come to the unit to gather up the number of individuals. Therefore, in the process of on-the-job internship, there are few enterprises that really participate in the training, and they do not know the students' situation from beginning to end, so they can not really improve the students' post core professional ability. In addition, some units treat interns as cheap labor, which directly leads interns to feel that they do not see a future. After the required time is completed, they change jobs at the first time, resulting in tense and complex labor relations.

2.4 The Internship Students Are Scattered

According to their own professional characteristics and actual situation, students are dispersed to the corresponding different internship units or project sites carry out on-the-job internships. Generally, it is difficult for a construction enterprise to accept a large number of students for on-the-job internships at one time. Even if the enterprise

uniformly accepts more students, it will eventually distribute students to different project sites for internships. However, a project site can only accept 1–3 students for internships. Therefore, the on-the-job internships of construction majors have the characteristics of decentralization, The civil construction specialty is particularly prominent in this aspect. The characteristic of decentralization makes the effective management and effect evaluation of the whole practice process extremely difficult.

3 Countermeasures

3.1 Vigorously Promote School Enterprise Cooperation and Deepen Industrial Integration

The basic requirements for vocational college education are that higher vocational colleges and enterprises jointly undertake talent training, jointly formulate talent training programs, organize teaching and on-the-job training according to the requirements of enterprises for talents, vigorously promote school enterprise cooperation and deepen industrial integration, including the establishment of “school in enterprise and school in enterprise”, such as the place where the school comes out, and the qualifications and funds of enterprises. After entering the University, students can go to the school and Chinese enterprises for professional study at any time according to their professional needs. In the third year, if necessary, they can directly practice in the school and Chinese enterprises; Enterprises are also very willing to recruit experienced interns. At the same time, the technical personnel of the enterprise can also take part in the practice courses of some departments after work; Departments and enterprises interact frequently, support and certify each other, and promote the improvement of students’ post core professional ability.

3.2 Actively Promote Post Course Docking and Precise Education

Taking the combination of work and study as the starting point, innovative talent training mode is the basic requirement of higher vocational education. However, for enterprises, the participation enthusiasm is basically not high, because for enterprises, school enterprise cooperation means that certain funds, human and material resources should be invested, but it can not guarantee that students will not change jobs after learning something there. Therefore, the primary issue of school enterprise cooperation is actually to solve the worries of enterprises and enhance the participation of enterprises in school enterprise cooperation. In fact, to put it simply, this is a matter of heart to heart, which requires the school to establish and improve the mechanism, and can carry out order training, special delivery, exchange between teachers and employees, and cooperative development of teaching materials with enterprises; The school plays an active role in publicity and promotion between enterprises and students, and builds a platform to enable enterprises to actively participate and students to better exercise their post ability.

3.3 It is Necessary to Improve Its Professional Competitiveness and Counterpart Rate

As the saying goes, a good wine is not afraid of a deep alley. One of the most important indicators for the success of a major is the matching rate between the internship and the graduate's job and major, and it is also one of the factors to measure the students' core competence. If a major, even if all students have internships, but most of them do not do this major, what does it mean? To put it simply, this major has failed. Therefore, in order to improve the professional counterpart rate, schools, enterprises and students need to have better interaction. We should also pay close attention to the construction of our own connotation, and actively improve our competitiveness in scientific research, technical services and student training. Students need to keep in mind their personal internship mission, strengthen their personal professional ethics, actively improve their professional basic ability and enhance their professional competitiveness; After the above work is done well, enterprises of relevant majors will be attracted to actively participate in it. Imagine that if students and majors are well built and competitive, are you still worried about attracting enterprises? The ultimate goal is to achieve the three complement each other and move forward together.

3.4 It Both Online and Offline Work Together to Ensure the Smooth Implementation of Post Practice

3.4.1 In combination with the characteristics of higher vocational education, and in view of the decentralized characteristics of post practice in civil engineering and construction, the school and enterprise industry and education are deeply integrated to carry out the monitoring, management and guidance of the whole process, all-round, all staff and multi-level of post practice. First of all, 2–3 professional teachers are arranged every year to conduct one-year full-time on-the-job internship guidance for the current year's interns, and teachers are required to carry out on-the-spot internship guidance in each student's unit or on the site. At the same time, in order to ensure safety, a special on-the-job internship teaching management system is set up to monitor the students' internship in real time, requiring students to punch in every day to ensure the consistency of students' positions.

3.4.2 Make full use of modern information technology to support the practical research of the project by means of modern scientific information technology. We will make full use of modern information technology, make use of QQ, wechat, Department (course, internship) websites, e-mail systems, etc., which are widely used at present, and develop the internship management system, so as to achieve real-time monitoring of each student in the internship, and use modern information technology as a means to solve the difficulties and key points of decentralized internship process management.

4 Offline Inspection and Online Management Are Integrated, and the Teaching Method Reform of Post Practice is Carried Out

In order to ensure the accuracy and reliability of the students' internship process, the college's leading teachers should carry out on-site inspection and guidance at the workplaces of at least 90% of the interns in each session. At the same time, in order to ensure

that the process management is more scientific and reasonable, students are required to carry out real-time internship reports on software such as the mushroom Ding app and the Wanmei campus app every day. Mobile phones automatically locate and determine the location of students, accurately punch in, upload daily reports, weekly records Monthly summary and internship summary: students who fail to sign in for more than 2 days will be warned, and teachers will contact and understand the situation at the first time to ensure the accuracy and safety of internship; Offline patrol and online management are integrated to promote the order and safety of post practice.

At the same time, after years of accumulation, the teachers who led the team basically went to the recruiting enterprises to investigate the students' professional environment and prospects. Therefore, the communication between the school and the enterprise was more smooth. Before the internship, the two sides jointly carry out the training on the professional post ability of the corresponding students, so that the students can understand the relationship between the upcoming internship and employment, understand the particularity of the corresponding professional post, master the long-term nature of the project construction, cooperate with schools and enterprises, jointly formulate the career promotion channels and ways for students' internship and employment, understand their career prospects in their enterprises, and apply for internship positions with a clear purpose, Enhance students' sense of belonging and honor to internship and employment enterprises, and promote the integration of students' strength and employment.

5 Conclusions

In general, building students' post core professional ability is one of the main purposes of post practice. Although there will inevitably be various problems in the implementation process, we should not give up because of choking. We should always focus on building the core competence of students' internship posts, give full play to their subjective initiative, and actively explore ways to solve problems. This paper aims at how schools actively strengthen communication and cooperation with enterprises, actively carry out school enterprise cooperation, strengthen organization and management, and build a good communication platform for students and enterprises. In addition, we did a good job in the role of communicator and facilitator in the process of post practice, implemented the guidance of instructors to track and control the whole process of internship students, and provided some solutions to the on-site front-line guidance of professional knowledge, hoping to provide some reference for enhancing the post core professional ability in the students' post practice.

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References

1. Chen, H. (2012). Problems and Countermeasures in post practice of higher vocational students. *Vocational and Technical Education*, 4.
2. Guangdong Institute of Education. Guangdong Provincial Department of Education. (2014). *Development of teaching standards for the connection major between secondary and higher vocational education in Guangdong: vocational ability analysis*. Guangdong Higher Education Press.
3. Pan, S., Wei, J., & Xu, X. (2022). Research on internship management innovation in higher vocational colleges from the perspective of the integration of production and education. *Journal of Changzhou Vocational College of Information Technology*, 21(2).
4. Li, G. (2022). Management of post practice process in Higher Vocational Colleges from the perspective of behavioral science management theory. *China Adult Education*, 2.
5. He, Y., & Wang, R. (2021). Research on the mining and implementation path of ideological and political elements of curriculum based on “three cores”. *Journal of Higher Education*, 2.
6. Jin, X. (2017). To meet the needs of high-speed rail development, “learning by doing” trains innovative civil engineering talents with rail transit characteristics. *China’s Out of School Education*, 51.

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