

Exploration on the Modern Apprenticeship School-enterprise Cooperation Model based on Student Role Transformation

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Abstract

The implementation of the modern apprenticeship pilot program will inevitably involve the effectiveness of the school-enterprise cooperation mechanism. In fact, the school-enterprise cooperation mechanism is a process of personnel training, which should pay attention to the needs of students. This paper starts with the connotation of the student role transformation in the modern apprenticeship school-enterprise cooperation, analyzes the necessity and feasibility of the student role transformation in the school-enterprise cooperation, and through the improvement of the school-enterprise link mechanism, the teaching condition support, the teaching content arrangement, to explore feasible countermeasures, with a view to promoting the development of school-enterprise cooperative education model.

Keywords

Modern Apprenticeship; School-enterprise Cooperation Mechanism; Role Reversal.

1. Introduction

Modern apprenticeship, as one of the important means of the development of higher vocational education, was formally proposed by the United Kingdom in 1993 and regulated by the Constitution. At present, all countries in the world bring modern apprenticeship into the strategic choice of high-quality development of their vocational education. China's modern apprenticeship system has gone through a period of development, China should try to establish a modern apprenticeship system with Chinese characteristics to promote the development of the vocational education according to its national conditions, said Wang Jiping, former deputy governor of the Ministry of Education, at a 2011 report on the 30 year review and outlook of the vocational education. In 2014, decision of the State Council on accelerating the development of the vocational education proposed accelerating the innovation of the training mode of skilled personnel, this includes, in particular, "The pilot program of the modern apprenticeship system of joint enrollment and joint training between schools and enterprises, the improvement of supporting policies, and the promotion of the integration of schools and enterprises in educating people", and the further clarification of the modern apprenticeship model of school-enterprise cooperation and integration of industry and education, the formal identification and support at the policy level indicates that the state has identified modern apprenticeships as an important development strategy for National Human Resources Development. In the same year, the Ministry of Education issued the opinions on the development of modern apprenticeship pilot program, further clearly proposes the establishment and promotion of modern apprenticeship pilot program, so that the vocational education will actively serve the regional economy. At the same time, from 2012 to 2016, the Ministry of Education has included the modern apprenticeship pilot program in its work priorities for five consecutive years, and has continued to improve and advance the pilot program on the basis of research and conclusions. In the process of dual education between school and enterprise, modern apprentice system endows students with another kind of identity -- apprentice, which will inevitably lead to the students' maladjustment in role conversion, this will, to a certain extent,

affect the effective operation of the school-enterprise cooperation mechanism in the modern apprenticeship system. This paper takes the student role transformation as the breakthrough point, mainly discusses the school-enterprise cooperation education pattern aspect question, advances the modern apprentice system the scientific comprehensive development.

2. The Connotation of Student's Role Transformation in Modern Apprenticeship School-enterprise Cooperation

2.1. Modern Apprenticeship

An apprentice is a novice who learns skills from his or her predecessors in an industry. An apprenticeship is a form of training in which a master in an industry teaches by example, the specific performance is the apprentice through the Teacher's guidance from the simple auxiliary work gradually to the independent work of the task of the process [1]. After the Second World War, apprenticeships became one of the most important modes of training talents in western countries. Second Industrial Revolution greatly promoted the development of social productive forces. The traditional apprenticeship system could not keep up with the development of society, can Not satisfy the society to the technical skill talented person's demand. The modern apprenticeship system combines the traditional apprenticeship training with the modern school education, emphasizes the cooperation between school and enterprise, and integrates the classroom teaching contents with the post practical training to realize the unity of theory and practice. After several years of preparation, China launched the modern apprenticeship pilot program in 2015, announcing three batches of 562 pilot units, including secondary and higher vocational schools, industries and enterprises, mainly higher vocational colleges.

The modern apprenticeship system attaches importance to the cultivation of students' knowledge, skills and professional qualities. The students of higher vocational colleges accept teaching arrangements that are different from those of ordinary colleges and universities during their study, including In school to receive theoretical education and in the enterprise by the master to lead the actual operation of training. Modern apprenticeship is a modern talent-training mode which focuses on skills training through deep cooperation between schools and enterprises and joint teaching by teachers and masters. Students have two roles (student and apprentice) .In the process of participating in the modern apprenticeship system, the students have the problem of dual role orientation and conflict, the modern apprenticeship system regards education as the main goal, and the bad role transformation will have a great impact on the effect of the modern apprenticeship system.

An analysis of the present situation and problems of modern apprenticeship from the perspective of student role transformation, to guarantee the effectiveness of modern apprenticeship education.

2.2. School-enterprise Cooperation Mechanism

The mechanism has the following characteristics [2]: First, it exists in a system which is composed of various parts, second, it operates in a certain way to coordinate the development of the internal participants and related factors, third, it exists the influence of internal and external environment; Fourth, the relative institutionalization and its effectiveness in practice can be reflected. To sum up, the mechanism is affected by the internal and external environment and depends on a certain way to coordinate the relationship between the main body of a system of institutionalized methods. At present, the cooperation between schools and enterprises is an important measure for the development of vocational education, which aims at training a group of high-quality technical talents, promoting the joint development of enterprises and colleges

and promoting the progress of social economy, modern apprenticeship is also a form of school-enterprise cooperation.

The effective operation of the school-enterprise cooperation mechanism is an important guarantee for the steady development of the modern apprenticeship system, which involves the participants such as the government, institutions, enterprises, students and other relevant factors, in the process of cooperation between schools and enterprises, the participation of relevant subjects and the interaction of various factors will affect the operation of the mechanism and its subsequent development, therefore, the optimization strategy of the school-enterprise cooperation mechanism needs to start with the factors in its system, combining the effectiveness of the existing system and methods to propose targeted optimization measures. The school-enterprise cooperation regards the cultivation of talents as one of the main goals, and students' participation needs to be fully considered. The optimization strategy of the school-enterprise cooperation mechanism also needs to be implemented (at the student level) , the main object of this study is the students who participate in the modern apprenticeship system. Through the students' feedback, we find that the problems in the school-enterprise cooperation mechanism have higher practical significance.

2.3. Role Reversal

In the field of sociology, R. Linton argues that roles are specific patterns of behavior that correspond to the rights and obligations that society expects to fulfill its identity [3]. The role definition of science includes three social psychological elements: a series of social behavior patterns, mainly determined by People's social status and status, and in line with social norms, responsibilities and obligations [4]. In the modern apprenticeship system, the dual roles of students and apprentices will form a set of behavior pattern which accords with the roles. Individuals participating in modern apprenticeships have the same rights and duties as students receiving general higher education, the right to receive a campus education and the obligation to acquire knowledge and skills when they are in an apprenticeship role, the situation is relatively complicated. At this time, the enterprise and the individual take on an employment relationship. The individual needs to change from the role of a student to that of an apprentice. In addition to consuming resources to learn operational skills and enhance personal professional accomplishment, it shall also abide by the rules and regulations of the enterprise and undertake the obligation of making profits for the enterprise [5]. Role transition is a series of behavior patterns and psychological changes of students when they assume different social roles, often accompanied by role conflict.

Role conflict refers to psychological and behavioral conflicts caused by incompatible expectations [6]. In the practical implementation of modern apprenticeship system, the role conflict of students is mainly manifested in two aspects: one is the role conflict -- because of the individual role, there are several transitions from student to apprentice to student, however, both the environment and the organizational culture of the university and the enterprise are quite different, which results in the conflicts caused by the corresponding bad role transformation, the conflict between the expectation of the ideal role and the behavior of the real role [7], including the individual of student's role does not agree with his own role orientation, the individual of apprentice's role is hard to balance the study and the relationship with work. These conflicts, especially the conflicts between roles, are all based on the difficulty of role conversion. The role conversion of modern apprentices and students in the system of secondary schools is closely related to the environment in which the roles are located, it reflects the actual problems of school-enterprise cooperation mechanism, so we choose the role transformation of students as the micro-cut-in point of this study.

3. The Necessity and Feasibility of Student Role Transformation in Modern Apprenticeship School-enterprise Cooperation

3.1. Necessity

At present, the research on modern apprenticeship is inseparable from the discussion on the cooperation between schools and enterprises. The content mainly focuses on the investigation and feedback to enterprises and institutions, that is, looking for the problems existing in the cooperation from the perspective of institutions or enterprises, including team building, curriculum building, the role of enterprises, management mechanisms, and from the government, enterprises and institutions of three aspects of improvement measures. In modern apprentice system, there are relatively few researches on the subject of students, and the relevant literature only discusses the problem from the micro level, and fails to put forward strategic suggestions on feedback to the mechanism of school-enterprise cooperation. In fact, student learning is an important indicator to test the effectiveness of the school-enterprise cooperation mechanism. It is known that the process of student role transformation is closely related to the school-enterprise cooperation mechanism, when students experience the repeated process from colleges and universities to enterprises in colleges and universities, there will be role conflicts and other situations, which may be due to the policy guarantee factors, the factors of communication and cooperation between enterprises and institutions in the aspects of educational objectives, teaching arrangement, curriculum setting, as well as students' own ability, emotion and attitude. These conditions can not be monitored at the level of institutions and enterprises, but they do exist and may develop into sequential parameters that affect the stability of the self-organizing system, the mechanism of cooperation between schools and enterprises, aware of the problems that are difficult to observe in the general direction of the modern apprenticeship cooperation mechanism between the school and the enterprise, determining the fast and slow relaxation variables, analyzing the content of the order parameters within the organization, and on this basis putting forward the optimization strategy, make the cooperation mechanism of modern apprentice system between school and enterprise more stable and orderly.

3.2. Feasibility

The purpose of the vocational education is not just to help students gain professional knowledge. It has two basic attributes: Educational and Professional. Therefore, in the process of training modern apprentices, we need to pay special attention to this key point, and combine theoretical teaching with practical teaching to guide students to "Learn by doing", to realize the combination of "Doing", "Learning", "Using" and "Creating", and to realize the transformation from education and employment to integration. In this process, the simple and repetitive skills teaching can not meet the needs of the students. The modern apprenticeship system puts the students in the main position, actively acquiring knowledge and skills, and exerting their initiative. The value logic of the practical community theory is consistent with the modern apprenticeship system, which takes the situation as the medium, combines the two tasks of study and work closely, and completes the process from the knowledge structure to the knowledge feedback through the interaction between the students and the situation. In this process, the combination of learning and application is emphasized, and the teaching process of theory and practice is deeply integrated.

According to the theory of community of practice, the teachers (masters) and students in modern apprenticeship system are in the community of practice, while the colleges and enterprises are student-centered, students' knowledge and abilities develop together. At present, there is still the problem that the knowledge and ability of students do not mix in the training of skilled talents in higher vocational education. Therefore, higher vocational colleges

need to further define the goal of the simultaneous development of students' knowledge and ability in the training of talents, pay Equal attention to knowledge and ability in theory teaching and practice teaching. Therefore, the integration of theory and practice and the integrated knowledge system are related to the education form in the process of students' development, which needs the combination of school education and enterprise training. Secondly, career needs and personal development are unified. Therefore, in the process of personnel training, schools should not only set the training standards according to the requirements of enterprise posts, but also give full consideration to students' personality development and ability needs to arrange teaching tasks and actual teaching. Thus, to meet the two-way needs of students' career development and personal ability training.

From the analysis of the necessity and feasibility of the cooperation between school and enterprise under the modern apprenticeship system based on the transformation of the students' perspective, it can be seen that the process of cultivating students under the modern apprenticeship system is closely related to the cooperation between school and Enterprise, in learning and practice, that is, in the process of changing the roles of students and apprentices, it is of great importance to become a "Bridge" between colleges and enterprises, connecting the communities formed in colleges and enterprises. Therefore, it is of practical significance to probe into the mechanism of school-enterprise cooperation from the perspective of students.

4. Research on the Countermeasures of Modern Apprenticeship School-enterprise Cooperation based on the Transformation of Students' Perspective

4.1. Perfecting the Linking-up Mechanism between School and Enterprise

Establish communication channels between school teachers and enterprise teachers. At the present stage, in the process of implementing modern apprenticeship system in our country, it is very common that the communication between the school and the personnel in the enterprise is not smooth, which will lead to the non-circulation of information to a great extent, so that the teaching content is repeated or the connection is not appropriate, there are some problems such as carelessness in paying attention to students. In order to avoid the information asymmetry, should establish the contact channel between the tutors. First, regular meetings are held between schools and business mentors to discuss issues such as teaching progress and student performance. In addition to summarizing the work of the previous phase and starting a new phase, it is also possible to review the inadequacy of work and to understand students' needs so that they can be corrected at the next stage. Second, the social platform to create a student work group, in which all mentors are involved, through the daily exchange of information exchange, timely detection of problems, solve problems.

The government participates in regulating and balancing the educational concept between schools and enterprises. Achieving the set goals requires all parties to move in the same direction and work together, as does education. The particularity of modern apprenticeship teaching lies in the difference of values between the school and the enterprise, which results in the game between the educational aim and the benefit aim, it can lead to the students' role swaying in the process of participation, they can not see clearly their own position, and they are out of the original intention of learning and practice. Because the enterprise has the purpose of making profits, training apprentices, although it belongs to the enterprise's talent reserve work, but in fact the brain drain causes the enterprise not to be willing to expend, the energy raises the apprentice, also is difficult in the education and the school achieves the consistent goal. In this case, the government needs to base certain work facilities in enterprises, such as tax exemption, special projects, financial subsidies, etc. For enterprises participating in modern apprenticeships, enterprises can invest Manpower and fund in personnel training on the

premise of basic protection of their own interests, taking training students' ability as the main task, so as to reach agreement with schools in educational concept.

Arrange pre-employment role-change training for students. Students and apprentices in different environments, students study in school, the goal is clear, the atmosphere is simple, free time, apprentice life pace is faster, need to regularly complete the assigned tasks, work pressure. Students entering an apprenticeship role may have difficulty adapting to changes in their environment and responsibilities in a short period of time, and need to arrange training for students before they enter the workplace to help them enter their personal role more quickly and adapt to the role change process. The training can include the following contents: First, the tutor makes clear to the student the apprentice role and the student role, the role power and responsibility difference, as the student mainly receives the education and studies diligently, as an apprentice, it is necessary to make the students realize the change of social rights after taking the role of apprentice and strengthen the students' psychological adaptability. Second, the enterprise master or old staff to teach students about professional literacy related knowledge, to help students understand the role of apprentices should have "Soft skills", in this direction to change thinking ahead of time. Third, lead the students to visit the internship site in advance, explain the work flow simply, and make the students understand the skills and skills required for work, in advance to adapt to the post-employment work environment.

4.2. Support for Improving Teaching Conditions

Improve the school and enterprise teaching facilities, simulation and simulation combined with real-world training. There are two forms in the process of vocational education practice: Simulation -- Enterprises Invest in relevant technologies to create a realistic virtual environment with multiple senses of vision, hearing, touch, etc. [8], students are able to receive relevant practices close to the real effect; practical training -- Training and teaching students in a real environment. Because students eventually have to enter a real social environment, simulation practice alone is not enough, simulation training can not replace the actual training place, there is a teaching function. In modern apprenticeship system, the learning effect of students will be affected by the external environment, high-quality practice environment, the environment can enable students to better understand the industry knowledge and improve the level of operation. Therefore, for the teaching of students (apprentices), the form should be combined in two ways, focusing on the actual situation: The training base of the school should be simulated to carry out the training of basic and basic operations, on this basis, we can arrange the practical training of enterprises to carry out the comprehensive operation ability training. In the process of practical training, we should pay special attention to "Student-centered" and multi-integration. Teachers should release tasks and guide students to explore independently, and study the tasks from different perspectives to achieve their goals. These tasks can be interdisciplinarity, to enhance students' knowledge reserve and problem-solving ability by integrating multi-disciplinary knowledge. In the process of applying these methods, schools and enterprises should update the training equipment according to the change of industry and pay attention to the matching of practice environment.

Protecting the rights and interests of teachers and enhancing their enthusiasm to participate in the apprenticeship system. Students in our country have certain dependence on teachers, and they can also sense the differences in teachers' attitudes. If teachers are not willing to take the initiative to participate in the modern apprenticeship, in the teaching process, passive teaching management will inevitably cause students learning discomfort, not only the role of apprentices, and may even be unable to assume the role of good students. Many teachers have become accustomed to the traditional teaching mode, and are reluctant to spend time for the modern apprenticeship experience to re-arrange the content of the work, change their teaching rhythm. Schools can, when appropriate, provide incentives for teachers to engage in relevant work.

Modern apprenticeship teaching and management can be linked to the title or performance bonus, for example: the title of teachers can be added to the requirements-participation in the modern apprenticeship professional pilot passed and individuals were rated as excellent teachers of the year. Only by strengthening and improving the effectiveness of teachers' work can schools motivate students' learning enthusiasm.

4.3. Perfect the Arrangement of Teaching Content

In the teaching content arrangement of modern apprentice system, the technology impartation is one of the key factors in enterprise education. In view of this question, we propose the optimization strategy, which safeguards the student (apprentice) the rights and interests earnestly.

Make teaching task schedule with teachers, and set up feedback channel for students. As an independent individual, students have the need to achieve personal growth, and their participation in modern apprenticeships is also aimed at acquiring more practical skills and laying a foundation for future work. In the actual participation process, the enterprise master may take the time cost into consideration, only assigns the apprentice the mechanical repetition work task, the technical instruction is relatively few, is difficult to play the talent training role, students in the boring work content is also easy to produce the apprenticeship training model or professional, professional doubt, psychological, do not recognize will bring a lot of negative effects, leading to the apprenticeship training in vain. Therefore, it is necessary to standardize the teaching process of enterprises, and stipulate that the teachers should teach the students' skills in a certain period of time. In addition, it is necessary to set up a student anonymous feedback platform, where students can reflect their own problems or the shortcomings of their tutors and environment, so that schools and enterprises can pay attention to the problems from the students' perspective and eliminate blind spots.

As the content of the course involves many factors, and there are still other problems to be solved, including the degree of correspondence of posts and certificates, the cultivation of professional accomplishment, and employment guidance, the author puts forward relevant suggestions for improvement as follows: First, pay real-time attention to the dynamic situation of enterprises in the industry, the second is to analyze the knowledge and ability of vocational qualification certificate and carry out teaching training to help students obtain the certificate and get employment after graduation Third, set up the General Education Course and arrange the enterprise master to teach by example in practice, so that the students can understand the craftsman spirit, have a sense of professional responsibility, and acquire the "Soft skills" such as communication ability and self-motivation ability Four is to open a career planning guidance courses for students to learn, the future has a more clear direction or goals, but also with the more confused students can communicate alone, answer questions, enhance professional and professional confidence of students.

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