Research on Undergraduate Education Reform based on Autonomous Learning

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Abstract. "Student-centric" undergraduate education focuses on autonomous learning of college students. With the help of the website of the Ministry of Education, this paper reviews the process and characteristics of China's undergraduate education reform since the founding of the People's Republic of China. It also uses questionnaires to investigate the status of autonomous learning of undergraduates from a university in Xi'an. Based on this, this paper explores the path of undergraduate education reform in the context of autonomous learning from the aspects of professional and curriculum training goals, online platform, extracurricular teaching system, teachers' teaching level, autonomous learning system, etc.

Keywords: Autonomous learning, Undergraduate, Education reform.

1. Introduction

The concept of "autonomous learning" was first proposed by Holec in the 1980s, that is, "the ability to self-manage learning" [1]. In the 21st century, education reforms centered on autonomous learning are more focused on the learners themselves. Pintrich, Zimmerman, and Pang Weiguo have elaborated the meaning of autonomous learning from different dimensions, they all emphasize the consciousness of the learning subject [2-3].

With the development of compulsory education in China, the self-learning education model has attracted widespread attention from all walks of life, and related theoretical and practical research has become increasingly prosperous, but most of them focus on primary and secondary education, and less research on autonomous learning for higher education students. In the 1990s, Bath explicitly pointed out that "only 2% of the employment needs of college graduates today are from universities, and the remaining 98% are from society", which means that continuous and long-term self-learning ability is necessary for college students, and is also the key to the current undergraduate education reform. On June 21, 2018, the New Era National Higher Undergraduate Education Working Conference held by the Ministry of Education emphasized that "undergraduate education is fundamental". Based on the current situation of College Students' autonomous learning, this paper explores the path of undergraduate education reform, in order to provide a direction reference for "student-centric" modern undergraduate education reform.

2. The Evolution of Undergraduate Education Reform in China

From 1949 to 2019, China's higher education reform has lasted for 70 years, which has played a good role in promoting the implementation of the strategy of "Talent Power"[4]. This paper combs documents related to education reform on the website of the Ministry of Education, and the results are shown in Table 1.
<table>
<thead>
<tr>
<th>Period</th>
<th>Features</th>
<th>Documents</th>
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<tr>
<td></td>
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<td>(Regulations on Interim Work of Higher Education Institutions Directly Under the Ministry of Education (Draft))(CPC Central Committee, 1961)</td>
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<td>1978-1984</td>
<td>Restore teaching order, Accelerate the construction of key specialties</td>
<td>(Regulations on the Provisional Work of National Key Colleges and Universities (Draft))(Ministry of Education, 1978)</td>
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<td>(Report on Accelerating the Development of Higher Education)(Approved by the State Council, 1983)</td>
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<td>1985-2000</td>
<td>Focus on education system innovation, Emphasize the reform of teaching contents and methods</td>
<td>(Decision on Educational System Reform)(CPC Central Committee, 1985)</td>
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<td>(Opinions on Further Deepening the Teaching Reform of General Colleges and Universities)(State Education Commission and the State Council Degree Committee, 1993)</td>
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<tr>
<td>2001-2011</td>
<td>Focus on teaching quality</td>
<td>(Opinions on Strengthening Undergraduate Teaching and Improving Teaching Quality)(Ministry of Education, 2001)</td>
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<td>(Opinions on Comprehensively Improving the Quality of Higher Education)(Ministry of Education, 2012)</td>
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<td></td>
<td></td>
<td>(Opinions on Accelerating the Construction of High-level Undergraduate Education and Comprehensively Improving Talent Training Ability)(Ministry of Education, 2018)</td>
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From Table 1, we can find that China's higher education reform has the following characteristics: First, the construction of major is gradually improved, and the setting of major is diversified and focused. Second, the quality of undergraduate teaching is more prominent, from "teaching" to "educating people". Finally, the transition from "teacher-centered" to "learner-centered", and emphasizes the core position of autonomous learning in undergraduate teaching.

### 3. The Situation of College Students' Autonomous Learning

In this paper, a questionnaire survey was used to investigate the current situation of autonomous learning of Undergraduates in a university in Xi'an, Shaanxi Province. A total of 300 questionnaires were distributed and 268 valid questionnaires were recovered, including 97 males and 171 females. The main survey results are shown. According to the questionnaire survey, we can see that: Firstly, college students have limited cognition of autonomous learning, and 72.01% of them do not fully understand. Secondly, the time of autonomous learning is not fixed, only 6.34% of students spend more than 3 hours a day on autonomous learning. Thirdly, 72.39% of students believe that time is the main factor affecting autonomous learning; 56.34% of them regard personal interests and self-development as the driving force of autonomous learning; more than 20% of them think that the difficulty of curriculum content and campus learning environment have a greater impact on...
autonomous learning, 18.28% of them are increasingly demanding from teachers. In addition, the channel of autonomous learning is relatively single, 86.57% of students still rely on textbooks and tutoring materials, and only 32.09% of them study on the Internet platform, and even less extracurricular practice. In the end, more than half of them believe that the channel of autonomous learning in the future should be based on offline tutoring materials and online network platforms, and extracurricular practice should not be ignored.

4. Suggestions for Undergraduate Education Reform in the Context of Autonomous Learning

4.1 Clear Goals of Major and Course, Change from "Knowledge" to "Ability"

The reform of undergraduate education should combine the constantly developing social status quo, optimize the major and curriculum training goals, enable students to establish a "What-Why-How" thinking mode, and study independently with pertinence. The implementation of goals should pay attention to feasibility and leave the disposable learning time to college students. The standardized teaching materials are selectively used according to the course goals, which avoids the difficulty of the course content exceeding the acceptance level of the students.

4.2 Make Full Use of the Network Platform to Implement Tracking Teaching

At present, the recognition of online learning platforms for college students is increasing, and the innovation of teaching media is one of the directions for the undergraduate education reform. Teachers should make full use of platforms such as rain class, classroom teaching, and youmu class to conduct teaching, guide students to use the Internet for autonomous learning in the form of task driven, cultivate students' ability and habit of autonomous learning, and use big data to track learning effect.

4.3 Constructing an Extracurricular Teaching System Oriented by Employment and Entrepreneurship

In July 2018, the (Opinions on the Implementation of the Communist Youth League's "Second Classroom Transcript "System in Colleges and Universities) was issued to clarify the importance of the "second classroom" for college students' education[5]. Undergraduate education reform should use the "second classroom" to encourage students to participate in various academic lectures, social surveys, entrepreneurship competitions, etc. Teachers can guide students to participate in various projects, exercise the practical ability of college students, and achieve the deep integration of "industry-learning-research".

4.4 Improve Teaching Standards and Methods

At the level of teaching, we should focus on the training of teachers' comprehensive ability, implement a triple assessment method of "teaching + research + practice" for teachers; organize training and teaching competitions regularly; establish a mutual assessment mechanism and set up a supervision group to track and evaluate teachers' classroom teaching; Set up a professional team and course team based on similar majors or the same course. In teaching methods, we should implement case teaching, classroom discussion and other heuristic teaching methods.

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References


