Research on the Satisfaction of Innovation and Entrepreneurship Education in the Era of Artificial Intelligence

Pan Liu[✉], Yanmin Huan, and Shurui Zhao

Weifang Engineering Vocational College, Weifang, China
15065650736@163.com

Abstract. In recent years, the innovation and entrepreneurship education in colleges and universities is constantly promoting the development, and the attention and evaluation of the quality satisfaction of innovation and entrepreneurship education of college students has also developed, which has become an important topic. However, under the impact of artificial intelligence as the core technology, the upgrading of industrial intelligence has promoted the formation of a new situation of innovation and entrepreneurship of contemporary college students, and also posed challenges to the educational quality satisfaction of college students' innovation and entrepreneurship. In this regard, this paper analyzes the current situation of innovation and entrepreneurship education for college students in the era of artificial intelligence, and explores the promotion path of innovation and entrepreneurship education in order to the value advantages of innovation and entrepreneurship education in the era of artificial intelligence.

Keywords: artificial intelligence · college students · innovation and entrepreneurship · path

1 Introduction

With the progress of science and technology, the Internet, big data, virtual reality, cloud computing and other high and new technologies have been widely applied, and the development of society is moving towards the intelligent era. At present, 'artificial intelligence + employment' 'artificial intelligence + higher education' 'artificial intelligence + industry' mode in continuous development, which requires college students to have innovative entrepreneurial literacy, intelligence for college students innovative entrepreneurship education should also be based on the background of intelligent era, improve students for innovation entrepreneurship education satisfaction, to promote the development of our social economy to cultivate excellent technical talents, adapt to the development of intelligent era.

2   Current Situation of Innovation and Entrepreneurship Education Among College Students in the Era of Artificial Intelligence

If you want to start a business, you must innovate first. College students are the leaders walking in the front of The Times, and their innovation and entrepreneurship ability has an obvious influence on the future development of China. Nowadays, the development of innovation and entrepreneurship education of college students has reached a critical period [1]. Therefore, it is necessary to combine the background of the intelligent era to find out the factors affecting the quality of innovation and entrepreneurship education of college students, so as to improve the satisfaction of the quality of innovation and entrepreneurship education.

2.1   The Form of Innovation and Entrepreneurship Education is Old

In the background of the intelligent era, the innovation and entrepreneurship education for college students should adopt a new education mode, so that the innovation and entrepreneurship education develops in the direction of intelligence and modernization, strengthen students 'innovative thinking, and improve students' employment and entrepreneurship ability. However, at present, the form of innovation and entrepreneurship education for college students in Chinese colleges and universities is relatively simple and old, with teachers and professors of book knowledge. Learning is boring and students lack interest in learning.

2.2   Innovation and Entrepreneurship Education Ignores Personalized Development

In the education of innovation and entrepreneurship in colleges and universities, the technology of artificial intelligence can be used to create a variety of learning space and rich learning resources for students. Independent of time and space, students can choose their own learning methods, help students find their own unique places, and improve their self-innovation. However, in the current innovation and entrepreneurship education in colleges and universities, the individuation of students is ignored, and the fixed and unified class teaching is adopted, which does not develop the individuation of students.

2.3   There are Few Practice Platforms for Innovation and Entrepreneurship Education

For the innovation and entrepreneurship education of college students. Should be the theory first, the key is in practice. But for the present situation, most colleges and universities understand the practice of innovative entrepreneurship education as practice base off-campus platform, schools lack of campus innovation entrepreneurship practice platform construction and planning, without the campus and campus practice platform, also did not use the advantages of intelligent big data to create a good practice platform for students.

3   Design and Analysis of the Investigation Scheme

By carrying out the intelligent age of college students' innovative entrepreneurship education mode questionnaire survey, understand the current college students for innovative business mode expectations, and the college students innovation entrepreneurship participation, and through the way of questions, understand college students for the problems existing in the current innovation entrepreneurship education mode, and according to the problem to put forward the corresponding optimization measures. Data collection through questionnaires serves as the data basis for this study. It also makes this study have more practical significance [2].

The survey subjects were mainly college students in Jiangxi Province, with a uniform ratio of men and women, and the distribution of age groups was mainly 20–30 years old. In the process of the questionnaire survey, the gender ratio was different in different grades.

The proportion of professional students has been weighed, and the questionnaire setting is mainly about the questions within the scope of college students' knowledge, with high feasibility.

The questionnaire survey mainly consists of three parts. The first part is the basic information of college students, including Yuan includes gender major, education background, etc. The second part mainly investigates the attitude, viewpoint and behavior of college students on innovation and entrepreneurship education. The third part is mainly related to the innovation and entrepreneurship education mode, and puts forward the targeted innovation and entrepreneurship education mode reform measures according to the relevant academic research results.

3.1   Implementation of the Questionnaire Survey

Pretest. Before the official pre-release of the questionnaire, it was conducted, and the first draft of the questionnaire was sent to 10 students for the pre-release test to test the students' understanding of the questionnaire design content. After the test, the content of the questionnaire was in line with the actual situation of the respondent, and there was no problem of the questionnaire beyond the cognition of the respondent. However, the pre-survey participants put forward individual modification suggestions for this questionnaire, and completed the questionnaire modification after considering the comparison finalize a manuscript [3].

Formal distribution. After the release of the questionnaire, it was distributed through contacts and multiple channels. A total of 3,300 questionnaires were distributed to different investigators in proportion according to the predicted target group planning of the questionnaire.

Questionnaire recovery. A total of 3200 questionnaires were collected in this survey, among which 50 were made invalid questionnaires due to the untrue questionnaire information. Therefore, a total of 3150 valid questionnaires were collected in this survey, asking.

The volume response rate was 95.4%, reaching the valid level of the pre-fixed questionnaire of 70%, and this questionnaire survey was valid.

3.2 Basic Data Situation Analysis

The basic information statistics of this study sample are shown in Table 1.

According to Table 1, the number of boys was 1730, accounting for 55% of the sample, 1420 girls, accounting for 45% of the sample. There was little gender difference between men and women, within acceptable limits, indicating that the findings were not influenced by gender. As can be seen from the professional situation of the respondents, among the respondents, engineering students accounted for 35%, science for 42%, and liberal arts for 23%. It can be predicted that the survey results are relatively average in the distribution of majors, and will not cause significant deviation to the survey. Judging from the educational background of the investigators, most of the respondents were undergraduates, and 72.34% were followed by junior college students, reaching 27.66%. The samples were rich and ideal. As can be seen from the attitude of college students towards entrepreneurship, 34% of college students have an active attitude towards entrepreneurship, 46% support the attitude, and only 12% oppose it. It can be seen that college students have a high enthusiasm for entrepreneurship.

By Table 2 innovation entrepreneurship guidance class curriculum, at present 31.7% of the students said the school in innovative entrepreneurship education course is only simple book teaching 47.6% of the respondents said schools treat innovative entrepreneurship education curriculum attention, in the teaching process of classroom teaching and no corresponding practice teaching content there are 11.1% of students said the school did not open such courses said only 9.5% of students said schools will open related courses, at the same time and both the theory and practice teaching.

Table 1. Gender status of the survey respondents

Project/Proportion	Number of people (person)	percentage
male	1730	55%
female	1420	45%
total	3150	100%

Table 2. Courses of great innovation and entrepreneurship guidance

type	Frequency	percentage
Simple Book Teaching Course	1030	31.7%
As an auxiliary course, only classroom teaching, no extra-curricular practice	1470	47.6%
A curriculum combining theoretical knowledge teaching and diverse practice	280	9.5%
There is no such course	370	11.1%

Table 3. Reliability evaluation criteria

Cronbach's Alpha value	standard
Cronbach's Alpha $\leq$ 0.3	not credible
0.3 < Cronbach's Alpha $\leq$ 0.4	Preliminary research, barely credible
0.4 < Cronbach's Alpha $\leq$ 0.5	slightly credible
0.5 < Cronbach's Alpha $\leq$ 0.7	credible
0.7 < Cronbach's Alpha $\leq$ 0.9	very credible
Cronbach's Alpha > 0.9	most credible

3.3 Reliability Analysis

Reliability, also known as reliability, means that the data obtained by taking repeated measurements of the same object are consistent. The reliability analysis of the questionnaire detects whether the data results of the paper are reliable and are used for the reliability of the questionnaire [4].

The more reliable. Details are shown in Table 3. Data from the questionnaire were exported and converted into SPSS readable. The sav file, SPSS is version 17.0. Then specific operation, reliability analysis, the following results using SPSS analysis of Cronbach's Alpha The value is 0.852, and the range of the value is that the data is credible, that is, that the questionnaire survey in this paper is credible, and the results obtained through data analysis are credible.

3.4 Analysis of Validity

The validity analysis was used in the questionnaire survey to check whether the questionnaire data were valid. The questionnaire survey data of this paper is very important for this paper, so after doing the reliability analysis, the validity analysis of the questionnaire data is then done to make the questionnaire more scientific. The spss17.0 software data KMO (Kaiser-Meyer-Olkin) and Bartlet sphere test (Bartlett Test of Sphericity) tests were also used to determine the validity of the data (Table 4).

The questionnaire data were imported in Excel for validity tested for each variable with spss17.0 as shown in Table 5.

It can be seen from the detected results that the KMO measure of 0.850 Yuan is very suitable, that is, it indicates that the data of the questionnaire survey is effective, and it can be used as the reference data of the paper. Yuan also shows that the questionnaire survey results are effective.

4 Artificial Intelligence Provides a New Path for College Students' Innovation and Entrepreneurship Education Reform
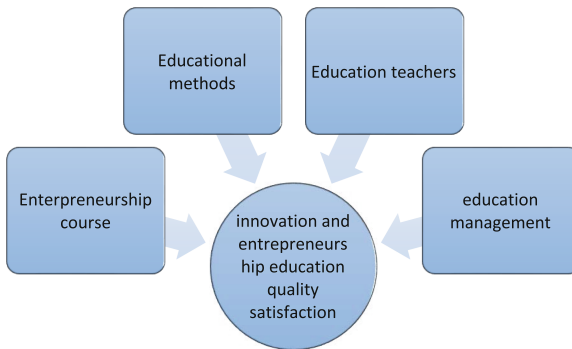
Innovation and entrepreneurship education in colleges and universities is a systematic project, which is composed of many elements and conditions [5]. Therefore, the evaluation index of the satisfaction of entrepreneurship education in colleges and universities

Table 4. KMO value-taking criteria

KMO value	standard
<0.5	give up
0.5 ≤ KMO < 0.6	reluctantly
0.6 ≤ KMO < 0.7	not very suitable
0.7 ≤ KMO < 0.8	Suitable for
0.8 ≤ KMO < 0.9	it suits well
KMO ≥ 0.9	very suitable

Table 5. Global KMO and Bartlett's spherical tests of the questionnaire

KMO metric for sampling adequacy		0.850
Bartlett's sphericity test	approximate chi-square	5220.189
	df	335
	Sig	0.000

Fig. 1. Factors influencing the quality satisfaction of innovation and entrepreneurship education

is not single, but the satisfaction of the effective implementation and evaluation of the curriculum, educational methods, education teachers, education management and other elements of innovation and entrepreneurship in the process of receiving innovation and entrepreneurship education (as shown in Fig. 1). Therefore, in order to improve the satisfaction of innovation and entrepreneurship, we must start from these influencing factors.

4.1   Attach the Importance of the Curriculum

Innovation and entrepreneurship course is the core factor in innovation and entrepreneurship education in colleges and universities. In the era of artificial intelligence, the courses

of innovation and entrepreneurship in colleges and universities should conform to the characteristics of the intelligent era, combine innovation and entrepreneurship with artificial intelligence, and apply intelligent knowledge to the innovation and entrepreneurship courses, so as to strengthen students' understanding of the era of intelligence. To this, to bring practical innovation entrepreneurship into the course, according to the characteristics of college students and the actual social life, find the demand suitable for innovative entrepreneurship course development, and then use the intelligent network resources and cloud computing, big data to break the limitation of time and space, enable students to use rich online network resources for independent learning, rich innovation entrepreneurship course mode, enhance students' satisfaction with the course.

4.2 Adopt Diverse Teaching Methods and Teaching Management

The innovation and entrepreneurship activities of college students are a process of sustainable development, which requires not only the attention and cultivation of educators, but also the support and tracking guidance of the society and the government [6]. The close cooperation of various departments can carry out all-round and whole-process consultation, tracking and targeted services for the entrepreneurship education of college students. First college is mainly cultivate college students' innovative entrepreneurship consciousness, skills and ability is second in the entrepreneurial practice and competition, society, schools, government or enterprises to provide entrepreneurial capital, places or technical support, college mentors timely tracking college students entrepreneurial problems, effectively and reasonably guide students, help them to overcome more difficulties in entrepreneurship. In college students founded companies, school teachers, parents and local government do appropriate tracking, consulting services, college entrepreneurship teachers can also feedback the successful experience of college students' entrepreneurship teaching, share the joy of entrepreneurial success, the entrepreneurship problems and failure lessons are timely introduced into the innovation entrepreneurship education case, make students learn, less detours, help growth, and optimize the innovation entrepreneurship management mode.

5 Conclusion

Artificial intelligence technology affects the transformation of the industry, but also changes the traditional innovation and entrepreneurship education mode, teaching methods and teaching environment in colleges and universities. In the era of artificial intelligence, artificial intelligence technology is closely related to the innovation and entrepreneurship education of college students. The integration between the two involves the integration of computer science, management and pedagogy. The application of artificial intelligence in colleges and universities can play the advantages of artificial intelligence science and technology, make innovation entrepreneurship education teaching mode change, make the college students in universities can participate in the innovation entrepreneurship education, improve the quality of innovative entrepreneurship education, so as to improve students' satisfaction with the quality of innovation in college entrepreneurship education.

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