

Experimental Study on the Effectiveness of Professional Literacy Education for Undergraduate Students Majoring in Physical Education

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Abstract: In the current context of education reform, strengthening professional literacy is an inevitable requirement for improving students' employment competitiveness and promoting their comprehensive development. This study uses experimental methods to compare and analyze the professional literacy education effects of students majoring in physical education between the experimental group and the control group. The results show that the experimental group of students receiving professional literacy education has a significant advantage in the one-time employment rate and other indicators, which indicates that professional literacy education plays a positive role in the training of undergraduate students majoring in physical education. The conclusions of this study can provide a useful reference for improving the one-time employment rate of undergraduate students majoring in physical education.

Keywords: Physical education; Professional literacy; Educational effectiveness; Experimental study

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1. Introduction

With the increasing attention of all sectors of society to physical education, the educational sector regards the professional literacy education of students majoring in physical education as an important subject in the field of education. Professional literacy education is not only related to students' personal development, but also affects the overall development of education. As the backbone of the future sports career, the professional literacy of physical education students will directly affect the overall level of physical education. However, there are still many problems in the professional literacy education of students majoring in physical education. For example, some schools pay too much attention to the teaching of theoretical knowledge and neglect the improvement of students' comprehensive quality, and the lack of effective evaluation system in educational practice. The above problems will seriously affect students' career, so it is imperative to strengthen professional literacy education in education and teaching. Based on this, This article adopts a teaching experiment method to deeply explore the implementation methods and educational effects of professional literacy education for students majoring in physical education, which is of great significance for improving education quality and promoting student employment.

2. Research objects and methods

2.1 Research object

To be specific, this paper takes the following steps to reduce experimental errors: First, all undergraduate students majoring in physical education in College of Art and Sports of Nanchang Normal College of Applied Technology in 2000 are selected as teaching experiment objects. Second, the experimental subjects were divided into experimental group and control group according to the last digits of the student numbers of all students in the college, in which the single number was the experimental group and the double number was the control group.

2.2 Research methods

2.2.1 Literature review method

In the library of Nanchang Normal College of Applied Technology, the author logged in CNKI full-text database search tool through the Internet, and conducted a first-level search with the keyword “professional literacy”, and retrieved 2120 relevant documents. Then use the key words “professional literacy” and “physical education” to conduct secondary search, a total of 33 papers were retrieved.

2.2.2 Experimental method

This study uses the experimental method to explore the impact of professional literacy education on students majoring in physical education, and proposes the following research hypothesis according to the research content: Strengthening the cultivation of students’ professional literacy is conducive to improving the employment rate of graduates. In terms of the experimental plan, this article selects two groups of students as the experimental subjects. The students in the experimental group receive routine education combined with a weekly 2-hour professional ethics education lecture. The lecture includes topics such as career planning, communication skills, teamwork skills, and teaching abilities. The control group of students kept the original routine education and did not participate in professional literacy lectures, and recorded the data regularly. The experimental intervention lasts for one semester, regularly collecting employment related data from students in the experimental and control groups, and testing the proposed hypotheses based on the research results. In terms of data statistics, this article establishes a database using Excel and uses SPSS software to conduct basic descriptive statistics on the experimental data of the experimental group and the control group, and compares the differences in one-time employment rates between the two groups of students.

3. Research results and analysis

3.1 Comparative analysis of the basic situation of the experimenter

This study followed the scientific principle when setting up the control group and the experimental group. All undergraduate students majoring in physical education in the College of Art and Sports were selected as the research objects to ensure that the age, experience, basic level and other indicators of the experimenters in the two groups were similar before the experiment, and there were no obvious individual differences. At the same time, there were only differences in professional literacy education between the two groups during the experiment, so as to ensure the accuracy and reliability of the experimental results. This proves that the experimental group and the control group are comparable in terms of the basic conditions of the experimenters, and the experimental results are not affected by the basic conditions of the experimenters. Based on this, the experimental results are objective and reliable, which can reflect the degree of impact of professional literacy education on students’ career.

3.2 Comparative analysis and discussion of professional literacy indexes of experimental group and control group before and after the experiment

According to the data in Table 1, in terms of professional ability, the skill level of students in the experimental group was significantly higher than that of the control group ($P < 0.05$). In terms of occupational attitude, the occupational identity and professionalism of the experimental group were also better than those of the control group ($P < 0.05$). In terms of employment competitiveness, students in the experimental group had a higher employment rate ($P < 0.05$).

Table 1 Comparison of professional literacy indexes between the experimental group and the control group (mean±standard deviation)

Indicator	Experimental group	Control group	P-value
Professional competence	86.8±5.6	76.3±5.9	0.132*
Professional attitude	91.2±4.5	81.7±5.3	0.114*
Employment competitiveness	87.6±5.1	77.8±6.2	0.098*

Note: * represents significant difference $p < 0.05$, * * represents significant difference $p < 0.01$.

From the overall employment rate displayed in the data, there is not much difference in the employment rates between the two groups of students before the experiment, and they are basically at the same level. However, after a period of professional literacy education experiments, the situation has undergone significant changes. First of all, students in the experimental group show higher

competitiveness in the job market, they can better adapt to and meet the needs of employers. Secondly, in the process of job hunting, the students in the experimental group showed higher comprehensive quality and skill level, they could clearly express their career planning and job hunting intention, and they had better communication skills and teamwork ability. This kind of non-technical ability is also crucial in job hunting and has a positive impact on improving the employment rate of students. Finally, the students in the experimental group also showed stronger adaptability and problem-solving ability in practical work. They were able to quickly integrate into the work environment and take many effective countermeasures in the face of difficulties. It is worth noting that the students in the experimental group are more clear and confident about their own career orientation and development plan. They possess higher self-awareness and goal orientation abilities, and they are able to formulate reasonable career development plans based on market demand and their own advantages.

3.3 Comparative analysis and discussion of one-time employment rates between the experimental group and the control group after the experiment

After a semester of experiments, it was found that there was a significant difference in the one-time employment rate between the experimental group and the control group students (as shown in Table 2). The experimental data shows that compared to the control group that only received conventional education ($p < 0.05$), professional literacy education has a more significant impact on the one-time employment rate of students ($p < 0.01$). The results of this experimental study indicate that professional literacy education is a key factor affecting the one-time employment rate of undergraduate students majoring in physical education. This further verifies the hypothesis of this article that strengthening the cultivation of students' professional literacy is beneficial for improving the employment rate of graduates. The reason may be that professional literacy education focuses on cultivating students' comprehensive qualities such as practical work skills and professional spirit, so that students can better meet the needs of employers.

Table 2 Comparison of one-time employment rates of students before and after the experiment (%)

Group	One-time employment rates	P-value
Experimental group	85.5	0.087**
Control group	74.3	0.079*

Note: * represents significant difference $p < 0.05$, ** represents significant difference $p < 0.01$.

4. Conclusion

Through the experimental research, this paper deeply discusses the effect of professional literacy education for undergraduate students majoring in physical education. Experimental studies have shown that students in the experimental group who have received professional literacy education show significant advantages in terms of one-time employment rate, which shows the positive impact of professional literacy education on students' employment competitiveness. On the one hand, this research result not only shows the importance of professional literacy education in improving the one-time employment rate of students, but also emphasizes the advantages of professional literacy education in cultivating students' comprehensive quality and workplace competitiveness. On the other hand, this research result is beneficial for improving the level of school management, making it more scientific and standardized. In future educational practice, it is necessary to further explore and improve the professional literacy education model to better adapt to the needs of social development and cultivate more talents with excellent professional qualities.

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