

Analysis of the Role of Literature Courses in Higher Vocational Colleges in Enhancing Students' Comprehensive Professional Abilities and Professional Ethics

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Abstract With the rapid development of vocational education and the economy, higher vocational colleges have elevated their talent cultivation objectives to new heights and standards, placing increasing emphasis on the development of students' comprehensive vocational competencies and professional ethics. This paper explores the role of literature course development in higher vocational colleges in enhancing students' comprehensive professional competencies and occupational ethics. Through literature review, the study provides a solid theoretical foundation and empirical basis. Questionnaires targeting students' comprehensive professional competencies and occupational ethics levels were developed and administered. The study used 80 students from the 2024 cohort at A Higher Vocational College in Zhongshan City, Guangdong Province, China, as the experimental sample. Action research and comparative experimental methods were employed to establish experimental and control groups, with teaching experiments conducted accordingly. Using the independent samples t-test to analyze the experimental results, the experimental class students who took the literature course achieved an average comprehensive vocational competence score of 80.67, which was 21.44 points higher than the control class, showing a significant difference ($P=0.02<0.05$). The average professional ethics evaluation score was 8.94 points higher than the control class, indicating a notable improvement in students' professional ethics.

Index Terms literature courses, comprehensive vocational competence, vocational ethics, independent samples t-test

I. Introduction

The primary objective of higher vocational colleges is to cultivate applied professional and technical talent. As educational reforms continue to deepen, higher vocational colleges have begun to shift their focus to ensure that graduates possess strong social adaptability. While continuing to emphasize the development of professional skills, institutions are now prioritizing the comprehensive development of students, with a particular emphasis on enhancing their overall quality and avoiding an exclusive focus on theoretical knowledge [1]-[4]. The understanding of "ability" among vocational colleges has also evolved from a narrow focus on job-specific skills to a broader interpretation emphasizing "people-centered" and "comprehensive occupational abilities" [5]. Vocational education must have a clear orientation, emphasizing competency-based education and prioritizing the cultivation of practical skills. This ensures that vocational students not only possess basic scientific and cultural knowledge and professional foundational knowledge but also master fundamental professional skills and operational capabilities. Additionally, they develop comprehensive vocational competencies such as adaptability to job changes, problem-solving ability, communication skills, judgment, and innovative spirit [6]-[9].

Additionally, individuals with low quality and high skills or low quality and low skills will inevitably face severe challenges and may also have negative impacts on society. Many of the negative incidents occurring in enterprises today are largely attributed to the lack of effective vocational ethics education within campuses [10]-[12]. Professional ethics are an essential basic quality for practitioners. Vocational education in higher vocational colleges is not only about equipping students with certain vocational skills but must also strengthen professional ethics education to promote the integration of vocational skills and professional ethics [13]. Therefore, higher vocational colleges place great importance on enhancing students' comprehensive vocational abilities and professional ethics.

Literature courses serve as an important prerequisite and foundation for other courses in vocational education and are a key component of the vocational education curriculum system. They encompass outstanding literary works that convey positive knowledge to students, guiding them to develop correct worldviews, values, and perspectives. This facilitates the improvement of students' communication and comprehension skills during the

learning process, enabling them to make independent judgments and decisions in their work, thereby enhancing their overall capabilities [14]. Brokerhof et al. [15] explored the role of business theory courses based on world literature in fostering students' moral character, using literary narratives to promote personal moral development. Du [16] pointed out that current vocational education should introduce cultural literacy education courses to enhance students' cultural literacy, thereby improving their social adaptability and interpersonal communication skills. Wang [17] developed a humanities literacy scale and an employment ability scale for research purposes, finding a significant positive correlation between students' humanities literacy and employment ability. Vinokurova and Tabachnikova [18] noted that students' preferences for literary works in a literary education context reflect their cultural background and moral choices in a business environment.

The value of literature courses in vocational colleges is not only reflected in the cultivation of students' humanistic literacy but also deeply integrated with the practical objectives of vocational education in vocational colleges. To explore the role of literature courses in vocational colleges in enhancing students' comprehensive vocational abilities and professional ethics, this paper first extensively reviews relevant theoretical research literature related to this topic, providing important theoretical foundations and experience. Through the application of action research methods, literature courses in vocational colleges can be implemented in practice. Taking 80 students from the 2024 cohort at A vocational college in Zhongshan City, Guangdong Province, China, as the experimental subjects, a comparative experimental method was used to randomly divide the students into an experimental group and a control group, and teaching experimental activities were conducted. From the perspective of students' comprehensive professional abilities and professional ethics, questionnaires were designed and surveys were conducted on the experimental subjects. The questionnaires "Comprehensive Professional Ability Survey Questionnaire for Vocational College Students" and "Professional Ethics Level Survey for Vocational College Students" were designed. Before and after the experiment, the questionnaires were distributed to students in the experimental class and the control class, collected, and the information was integrated to obtain experimental data. Using the independent samples t-test method, the experimental data results were subjected to Levene's variance analysis and t-tests to analyze the significance levels of students in the experimental and control groups under different content conditions. Finally, from the perspective of literature courses in higher vocational colleges, corresponding strategies to enhance students' comprehensive vocational abilities and professional ethics were explored to provide support for talent cultivation in higher vocational colleges.

II. Research Design

Literature courses in higher vocational colleges and universities, through the cultivation of literary literacy and implicit education, permeate the core dimensions of students' career development, exerting a unique and profound influence on the cultivation of their comprehensive professional abilities and professional ethics. This paper will delve into the role of literature courses in higher vocational colleges and universities in enhancing students' comprehensive professional abilities and professional ethics, and will experimentally validate the effectiveness of such courses [19].

II. A. Research Objectives and Hypotheses

To examine the role of literature courses in higher vocational colleges in enhancing students' comprehensive professional abilities and professional ethics. The hypothesis of the experiment is that literature courses in higher vocational colleges are more effective in stimulating students' initiative in learning, enhancing the effectiveness of comprehensive professional ability training, and promoting the improvement of students' professional ethics.

II. B. Experimental subjects

This study took 80 students from the 2024 class of a higher vocational college in Zhongshan City, Guangdong Province, China, as the experimental subjects. In order to enhance the objectivity of the experimental subjects, the selected students had similar learning foundations and levels, meeting the requirements for experimental subjects. At the same time, in order to make the experimental results more objective, the 80 students were divided into two classes, an experimental class and a control class, with 40 students in each class.

II. C. Research Methods

II. C. 1) Literature review method

A review of relevant domestic and international literature was conducted to investigate the current state and trends in research on the role of literature courses in higher vocational colleges in enhancing students' comprehensive professional competencies and professional ethics. For Chinese literature, the search was primarily conducted through databases such as CNKI and VIP, as well as official websites of the Chinese government and educational institutions. For foreign literature, the search was primarily conducted through Google Scholar, websites of

governments and relevant departments in developed countries, and ERIC. By extensively reviewing the theoretical research literature required for this study, we aim to provide an important theoretical foundation and practical experience for this research, striving to elevate it to a higher starting point.

II. C. 2) Questionnaire Survey Method

A questionnaire survey was conducted in a targeted manner on the experimental subjects. Two main questionnaires were used in this study, namely, the "Comprehensive Professional Competence Survey Questionnaire for Vocational College Students" and the "Professional Ethics Survey for Vocational College Students." The questionnaire was designed in accordance with questionnaire design principles and based on the research objectives and needs. After reviewing a large amount of literature and similar questionnaires, the questionnaire was designed to collect the data and information needed for the study. The survey was administered on a class-by-class basis, with questionnaires distributed randomly, completed on-site, and collected immediately after completion.

To ensure the reliability of the survey data, reliability and validity tests were conducted separately for both questionnaires. The calculated reliability coefficients (R) were 0.885 and 0.874, respectively, with p-values both less than 0.05, meeting the reliability requirements for the questionnaires.

II. C. 3) Action Research Method

Action research is an exploratory research method that combines teaching practice with small-scale educational reform. It is mainly based on practical research methods such as case studies to summarize problems in educational activities. Action research tracks the development of individuals and explores and improves methods that can solve problems. In this study, the application of action research can be used to implement literature courses in higher vocational colleges and clarify their role and effectiveness in improving students' comprehensive professional abilities and professional ethics.

II. C. 4) Comparative experimental method

In this study, 80 students were selected from a higher vocational college in Zhongshan City, Guangdong Province, China. Through random assignment, an experimental group and a control group were established to conduct a comparative experiment aimed at practically testing and verifying the role of literature courses in higher vocational colleges in enhancing students' comprehensive professional competencies and professional ethics. The experimental group will add and introduce literature courses on top of their existing curriculum, while the control group will continue with their current curriculum. The experiment will run from March to July 2024, lasting five months.

II. C. 5) Independent samples t-test method

Since the study is a statistical test, variance analysis and t-tests need to be performed on the experimental data results. Levene's test of variance is a more lenient test of variance homogeneity, which is used to test whether the variances of multiple groups of data are equal [20]. It also works well in handling non-normal distributions and outliers. The statistic W is shown in Equation (1):

$$W = \frac{1}{MSe} \frac{N(\bar{Z} - \bar{Z}_i)^2}{r-1} \quad (1)$$

In equation (1), \bar{Z} denotes the mean of the converted data population, and \bar{Z}_i denotes the mean of the i th group of converted data packets. The t-test is primarily used for small sample sizes and includes three types of comparisons: between samples and means, between paired data, and between two sample means. The formulas for these three types should not be confused. The statistical test for independent samples, as shown in Equation (2) [21]:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(n_1-1)S_1^2 + (n_2-1)S_2^2}{n_1+n_2-2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \quad (2)$$

In equation (2), \bar{X}_1, \bar{X}_2 represent the sample means of the two samples, n_1, n_2 represent the sample sizes of the two samples, and S_1^2, S_2^2 represent the sample variances of the two samples.

The significance level is the probability of making an error when estimating the population parameter within a certain interval, denoted by α . Significance refers to the degree of difference; different degrees indicate that the cause of the variation may be due to conditional differences or random differences. It is a pre-determined small probability standard used as a judgment criterion in hypothesis testing. In hypothesis testing, the significance level is an important parameter because it controls the probabilities of false positives and false negatives. Significance refers to the probability of rejecting a hypothesis based on the results of a statistical test, where the probability is

compared to a significance level (e.g., 0.05, 0.01, or 0.001). $P > 0.05$ indicates no significant difference, $0.01 < P < 0.05$ indicates a significant difference, and $P < 0.01$ indicates a highly significant difference.

Degrees of freedom are denoted by df and refer to the number of variables whose values are unrestricted when calculating a particular statistic. Degrees of freedom equal the number of independent variables minus the number of derived variables, as shown in Equation (3):

$$df = n - k \quad (3)$$

In equation (3), n represents the sample size, k represents the number of constraints or variables, or the number of other independent statistics used to calculate a certain statistic. The definition of variance is the sample minus the mean, i.e., a derivative quantity determined by the sample. Therefore, for N random samples, the degrees of freedom are $N - 1$.

A two-tailed test is a statistical test method used to determine whether there is a significant difference between the sample mean and the population mean, or between the sample proportion and the population proportion, without considering the direction of the difference (positive or negative). When it is impossible to directly judge the relative magnitude of the two results based on professional knowledge, a two-tailed test is used. When the test is to determine whether the difference between the sample statistic and the hypothesized parameter is too large, regardless of whether the difference is positive or negative, the risk is split equally between the right and left sides.

A confidence interval is an interval estimate of the population parameter constructed from the sample statistic. In statistics, the confidence interval of a probability sample is an interval estimate of a certain population parameter of that sample. A 95% confidence level means that in multiple samples, 95% of the confidence intervals include the unknown parameter value, while the remaining 5% do not include the true value. Confidence intervals are related to factors such as the confidence level and sample size. When the confidence level is fixed, the larger the sample size, the narrower the confidence interval. Additionally, when the sample size is the same, the higher the confidence level, the wider the confidence interval.

III. Analysis of the Role of Literature Courses in Enhancing Students' Comprehensive Professional Competence

This chapter will analyze the role of literature courses in higher vocational colleges in enhancing students' comprehensive professional abilities and explore the effectiveness of literature courses in cultivating students' comprehensive professional abilities.

III. A. Comparative Analysis of Student Academic Performance

Before and after the experiment, academic achievement tests were conducted on both the experimental class and the control class. To ensure the accuracy of the experiment, the experimental class and the control class used the same learning materials, had the same number of training hours, and were taught by the same teachers. The only difference was whether or not a literature course was offered. The experimental class had a literature course, while the control class maintained its original curriculum without adding a literature course.

The pre- and post-test scores for the experimental and control groups are detailed in Table 1. As shown in the table, in the pre-experiment academic achievement test, the control group's scores were slightly higher than the experimental group's by 1.8 points. However, after the experiment, the control group's scores were lower than the experimental group's by 5.88 points. This indicates that after introducing the literature course, the overall academic achievement scores of the experimental group improved, and their learning initiative was significantly enhanced.

Table 1: Comparison of pre-test and post-test results

Test	Class	Mean value	Standard deviation	Standard error of mean
Pre-test	Control class	68.32	6.866	1.329
	Experimental class	66.52	6.522	1.263
Post-test	Control class	70.48	8.743	1.742
	Experimental class	76.36	7.130	1.435

An independent samples t-test was conducted on the pre- and post-test scores of the experimental and control groups. The test results are shown in Table 2. In the pre-test, the Levene test indicated that there was no significant difference in variance between the two groups ($F=0.262$, $\text{Sig.}=0.466$). Subsequently, an independent samples t-test was conducted, revealing that the mean difference between the two groups was also not significant, with Sig. (two-tailed) being $0.355 > 0.05$. When testing the difference between the experimental class and the control class in the post-test, $F = 1.458$, $\text{Sig. (two-tailed)} = 0.014 < 0.05$, indicating a significant difference between the experimental

class and the control class. Clearly, after the addition of the literature course at the vocational college, the academic performance of the experimental class students improved significantly, outperforming the control class.

Table 2: Independent Sample T Test Results

Test	Project	Levene test of variance equation		T test of mean equation						
		F	Sig	T	Df	Sig (bilateral)	Mean difference	Standard deviarian	95 % confidence interval of the difference	
									Upper limit	Lower limit
Pre-test	Suppose the variance is equal.	0.262	0.466	0.373	18	0.355	1.264	1.664	-1.979	5.577
	Suppose the variance is not equal.			0.373	17.819	0.355	1.264	1.664	-1.880	5.592
Post-test	Suppose the variance is equal.	1.458	0.216	2.128	17.997	0.014	5.712	2.131	-10.246	-1.264
	Suppose the variance is not equal.			2.128	15.001	0.014	5.712	2.131	-10.282	-1.568

III. B. Comparative Analysis of Students' Comprehensive Professional Abilities

This paper will analyze students' comprehensive professional abilities from two horizontal dimensions: professional abilities and professional literacy. After the experiment, a survey will be conducted to assess the comprehensive professional ability levels of students in the experimental class and the control class.

III. B. 1) Comprehensive Professional Competence

A comparative evaluation of the comprehensive vocational competence levels of students in the experimental class and the control class was conducted, with the results shown in Figure 1. In the figure, Class1 and Class2 represent the experimental class and the control class, respectively, while A1–A3 correspond to students' comprehensive vocational ability levels, vocational abilities, and vocational literacy, respectively. As shown in the figure, the comprehensive vocational ability level of students in the experimental class reached 80.67 points, which was 21.44 points higher than that of the control class, indicating a significant difference ($P = 0.02 < 0.05$). In the two horizontal dimensions of vocational ability and vocational literacy within comprehensive vocational ability, the experimental class students' evaluation scores were also higher than those of the control class, exceeding the control class by 18.23 points and 3.21 points, respectively, with P-values of 0.046 and 0.035, both less than 0.05, indicating significant differences. After introducing literature courses, the experimental class effectively enhanced students' communication, expression, and collaboration skills, as well as their ability to transfer and apply knowledge. Through literature-based scenario simulations, students gained a better understanding of the thinking patterns of different groups in professional work, resulting in a comprehensive improvement in their overall professional competence.

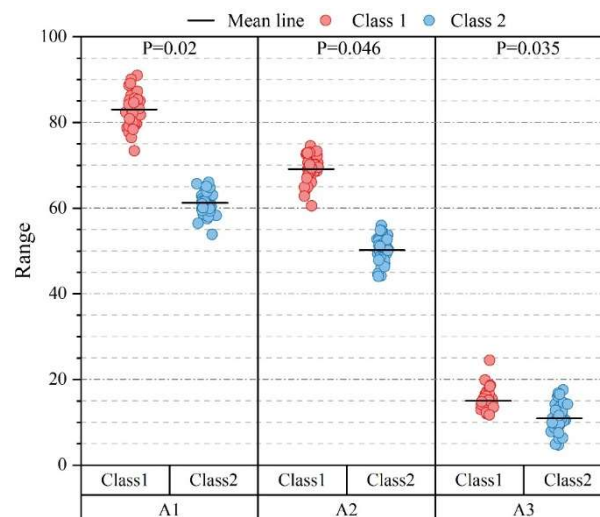


Figure 1: Students' comprehensive vocational ability

III. B. 2) Professional Competence

Professional competence can be further broken down into three aspects: professional skills, methodological skills, and social skills. The differences in professional competence indicators between the experimental class and the control class are shown in Figure 2. In the figure, B1–B3 correspond to professional skills, methodological skills, and social skills, respectively. As can be seen, the mean scores for professional competence, methodological competence, and social competence among experimental class students were all higher than those of control class students, with differences of 11.48, 5.99, and 0.76, respectively. Additionally, significant differences were observed in professional competence and methodological competence ($P < 0.05$). This indicates that the introduction of literature courses in higher vocational colleges has led to a certain improvement in students' vocational competencies. Although the P-value for social skills is less than 0.05 and does not show a significant difference, the introduction of literature courses has provided experimental class students with more opportunities for language expression and communication, which still has a certain beneficial effect on the improvement of their social skills.

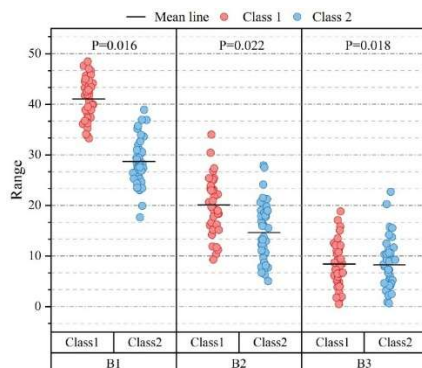


Figure 2: Students' vocational ability

III. B. 3) Professionalism

Professional competence is also essential, serving as one of the key components of comprehensive professional ability and a crucial element in enhancing students' overall professional capabilities. Professional competence primarily encompasses five indicators: curiosity, focus, creativity, self-confidence, and craftsmanship. The specific analysis and comparison of professional competence indicators between the experimental class and the control class are illustrated in Figure 3. In the figure, C1 to C5 correspond to curiosity, focus, creativity, self-confidence, and craftsmanship, respectively. As shown in the figure, the mean scores of experimental class students in all professional ethics indicators are higher than those of the control class. Except for the craftsmanship indicator, significant differences ($P < 0.05$) are observed in the curiosity, focus, creativity, and self-confidence indicators. The introduction of literature courses in the experimental class has enhanced students' curiosity about the diverse interpretations of literary works, developed their ability to think from multiple perspectives, improved their concentration, and fostered their teamwork and communication skills through collaborative discussions in literature interpretation groups. Additionally, their creativity and confidence in self-expression have been strengthened, thereby achieving the cultivation and advancement of their professional competencies.

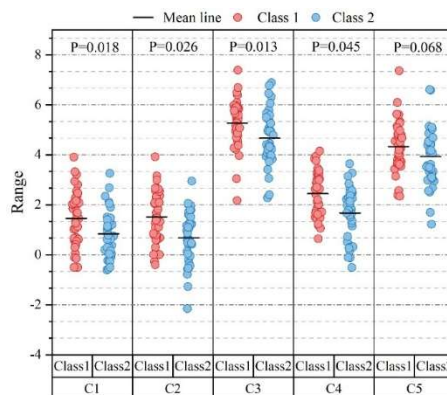


Figure 3: Students' professional quality

In summary, literature courses in higher vocational colleges play a unique and far-reaching positive role in enhancing students' comprehensive professional abilities and should be given due attention by higher vocational colleges.

IV. Analysis of the Role of Literature Courses in Enhancing Students' Professional Ethics

This chapter will focus on the cultivation of students' professional ethics and explore the role of literature courses in higher vocational colleges in enhancing students' professional ethics.

IV. A. Comprehensive Comparative Analysis of Students' Professional Ethics

In this study, questionnaires on "Survey on the Professional Ethics Level of Vocational College Students" were distributed to students in the experimental class and the control class before and after the experiment to test changes in students' professional ethics levels. The specific results of the professional ethics levels of students in the experimental and control groups before and after the experiment are shown in Table 3. As shown in the table, before the experiment, the mean professional ethics evaluation scores of the experimental and control groups were similar, with a difference of less than 1 point, indicating a small disparity between the two groups. However, after the experiment, the mean professional ethics evaluation score of the experimental group was 8.94 points higher than that of the control group, indicating a significant improvement in students' professional ethics.

Table 3: The professional ethics level before and after the experiment

Time node	Class	Mean value	Standard deviation	Standard error of mean
Before the experiment	Control class	70.88	4.596	1.293
	Experimental class	71.02	3.7468	1.853
After the experiment	Control class	71.66	7.551	1.942
	Experimental class	80.6	7.737	1.166

An independent samples t-test was conducted to compare the professional ethics levels of students in the experimental and control groups before and after the experiment. The test results are detailed in Table 4. As shown in the table, there was no significant difference in the mean values between the experimental and control groups before the experiment, with Sig. (two-tailed) being $0.355 > 0.05$. A post-experiment analysis of differences between the experimental and control groups revealed a Sig. (two-tailed) of $0.032 < 0.05$, indicating a significant difference between the two groups. This suggests that incorporating literature courses into students' curricula resulted in a notable improvement in the experimental group's professional ethics, with their levels surpassing those of the control group, which did not include literature courses.

Table 4: Results of Independent Sample T Test on Students' Professional Ethics

Time node	Project	Levene test of variance equation		T test of mean equation				
		F	Sig	T	Df	Sig (bilateral)	Mean difference	Standard deviarian
Before the experiment	Suppose the variance is equal.	0.464	0.662	0.275	84.663	0.355	1.036	1.664
	Suppose the variance is not equal.			0.275	84.452	0.355	1.361	1.664
After the experiment	Suppose the variance is equal.	1.326	0.041	-1.279	88.185	0.032	-0.176	0.165
	Suppose the variance is not equal.			-1.279	88.013	0.032	-0.176	0.165

IV. B. Comparative Analysis of Five Dimensions of Student Professional Ethics

Students' professional ethics can be specifically divided into five dimensions: professional sense of responsibility, professional integrity, teamwork ability, service awareness, and sustainable development perspective. The comparison of the five dimensions of professional ethics between the experimental class and the control class before the experiment is shown in Figure 4. It can be seen that before the experiment, the mean values of the five

dimensions of professional ethics between the experimental class and the control class were basically the same, and there was no significant difference ($P > 0.05$).

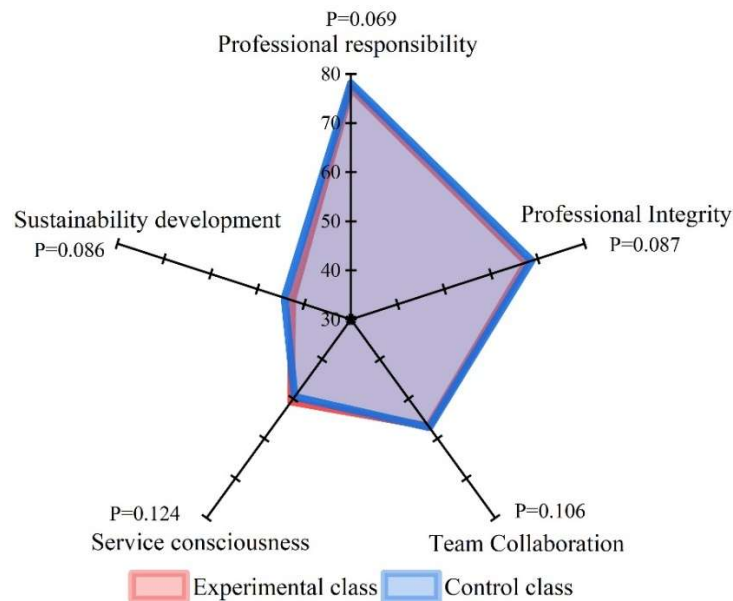


Figure 4: Five dimensions of students' professional ethics before the experiment

At the end of the experiment, the five dimensions of professional ethics of the experimental class and the control class were compared, as shown in Figure 5. The experimental class was 9.5, 9.6, 11.1 and 8.7 in the dimensions of professional responsibility, professional integrity, teamwork and service awareness, and the P values were 0.033, 0.026, 0.044 and 0.018, all of which were less than 0.05, showing significant differences, but the mean values of the two were basically the same in the dimension of sustainable development and did not show significant differences ($P > 0.05$). Through the establishment of literature courses, the experimental class concretizes the dimensions of professional ethics such as professional responsibility and professional integrity through literary works, which is more convincing than the conventional professional ethics theory teaching, can better establish students' sense of identity with professional ethics, and is of great significance to improving students' professional ethics.

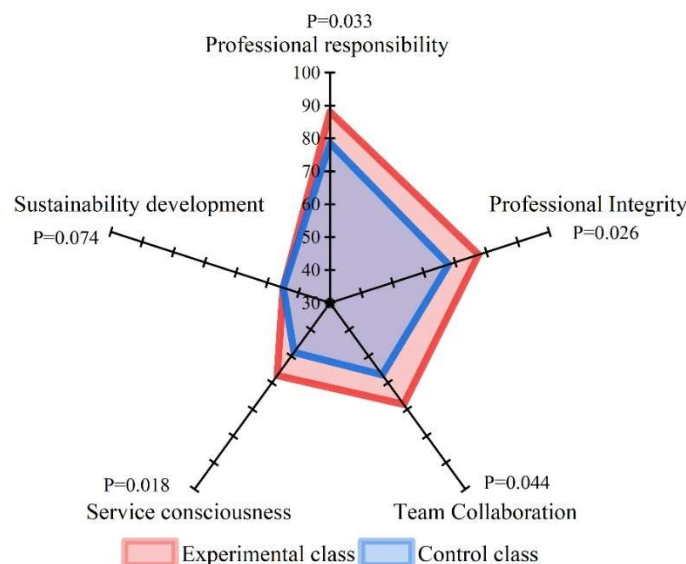


Figure 5: Five dimensions of students' professional ethics after the experiment

Overall, the introduction of literature courses in higher vocational colleges has a positive impact on the cultivation of students' professional ethics. Teachers in higher vocational colleges should attach importance to this and actively promote the popularization of literature courses on campus.

V. Strategies for Cultivating Comprehensive Professional Competence and Professional Ethics in Vocational College Students

Based on the analysis above of the role of literature courses in higher vocational colleges in enhancing students' comprehensive professional abilities and professional ethics, this chapter will explore corresponding strategies to address the current issues in cultivating students' comprehensive professional abilities and professional ethics in higher vocational colleges, thereby providing support for talent cultivation in higher vocational colleges.

V. A. Strategies for cultivating students' comprehensive professional abilities

1) Implement a comprehensive view of professional competence and define the objectives of literature courses.

Higher vocational colleges are the main battleground for cultivating high-quality skilled talent. The objectives of offering literature courses should be approached from two dimensions: the breadth of abilities and the growth of abilities, laying the foundation for students' long-term development. In terms of the breadth of abilities, higher vocational colleges should be guided by the comprehensive professional competence perspective, integrating the cultivation of professional abilities and core abilities, and establishing literature course objectives that integrate knowledge, skills, and qualities. While emphasizing the growth of students' skills, literature courses should also take into account the cultivation of students' personalities. In terms of skill development, vocational colleges should reference the national vocational and technical talent qualification system to construct a career skill development framework that aligns with talent growth patterns and student cognitive characteristics, progressing from novice to expert. This framework should serve as the basis for setting literary course objectives.

2) Optimize the path for converting vocational competencies and restructure literary course frameworks.

Vocational colleges and universities should require students to understand production processes from the outset of their literary course studies, integrating core competencies such as occupational ethics and professional conduct into the curriculum to enhance students' adaptability. Adopt a modular course model to restructure course frameworks. In the course structure design phase, vocational colleges should closely monitor industrial technological changes, flexibly set up modular courses, and aim to enhance the adaptability of vocational education. Courses should be oriented toward work processes and aligned with the requirements of students' lifelong sustainable development, with modular courses tailored and adjusted according to different teaching contexts.

V. B. Strategies for cultivating students' professional ethics

1) Optimize the content and educational environment of literature courses to enhance the effectiveness of vocational ethics education.

Schools should fully leverage the influence of teachers to reasonably transform students' emotional identification with course instructors into intrinsic moral character during the learning process of literary courses, thereby effectively fostering vocational college students' understanding and emphasis on professional ethics. While receiving guidance in shaping their professional ethics, students should also engage in self-reflection on the attitudes and qualities they should uphold in their future studies and work, understanding that while diligently honing their professional skills, they must also prioritize the cultivation of professional ethics and character.

2) Strengthen teacher team building to enhance the pervasive influence of vocational ethics education.

Due to differences in teachers' subjective interpretations, practical experience, and disciplinary backgrounds, issues in literature course teaching practices include both individual and widespread problems. Therefore, it is essential to pool collective wisdom and strength to analyze issues and their root causes. Strengthen research and exchange among literature course instructors, regularly organize theoretical learning sessions, and enhance teacher team building from ideological and theoretical perspectives.

VI. Conclusion

This study used 80 students from the 2024 cohort at a higher vocational college in Zhongshan City, Guangdong Province, China, as the experimental subjects. Through random allocation of students, experimental and control groups were established to conduct a teaching experiment on literature courses at higher vocational colleges. Surveys were distributed before and after the experiment to collect student data and conduct in-depth analysis.

In analyzing the role of literature courses in enhancing students' comprehensive vocational competencies, the academic achievement test scores of students in the control group were 5.88 points lower than those in the experimental group after the experiment. The overall academic performance of students in the experimental group

improved, and their proactive learning attitudes showed a significant increase. The comprehensive vocational competence level of the experimental class students reached 80.67 points, which was 21.44 points higher than that of the control class, showing a significant difference ($P=0.02<0.05$). Significant differences were also observed in the two horizontal dimensions of vocational competence and vocational literacy within comprehensive vocational competence ($P<0.05$). In the professional competence dimension, the mean scores for professional competence, methodological competence, and social competence of students in the experimental class were 11.48, 5.99, and 0.76 points higher than those of the control class, respectively, and significant differences were observed in both professional competence and methodological competence ($P < 0.05$). In the professional ethics dimension, the experimental class students' mean scores for all professional ethics indicators were higher than those of the control class, and significant differences were observed between the two classes in the indicators of curiosity, concentration, creativity, and self-confidence ($P < 0.05$).

An analysis of the role of literature courses in enhancing professional ethics in higher vocational colleges revealed that the mean scores for professional ethics evaluations were similar between the experimental and control classes before the experiment, with minimal differences. After the experiment, the mean score for professional ethics in the experimental class was 8.94 points higher than that of the control class, indicating a significant improvement in students' professional ethics ($P=xxx<0.05$). Further analysis of the five dimensions of professional ethics revealed that before the experiment, the mean scores for the five dimensions of professional ethics were similar between the experimental and control classes, with no significant differences ($P>0.05$). After the experiment, the experimental class's average scores in the dimensions of international perspective, professional competence, professional knowledge, and national sentiment were 9.5, 9.6, 11.1, and 8.7 points higher than the control class, respectively, showing significant differences ($P<0.05$). However, no significant differences were observed in the dimension of sustainable development perspective ($P>0.05$).

Overall, literature courses in higher vocational colleges play a positive role in enhancing students' comprehensive professional abilities and professional ethics, and should be given due attention by teachers in higher vocational colleges. Finally, from the perspective of literature course development, strategies for cultivating students' comprehensive professional abilities and professional ethics in higher vocational colleges are proposed. In terms of cultivating students' comprehensive professional abilities, it is necessary to clarify the objectives of literature courses and optimize their structure. In terms of shaping students' professional ethics, it is essential to enhance the targeted nature of professional ethics education in literature courses and strengthen teacher development.

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References

- [1] Lei, W., & Hao, Z. (2021). Exploration and Practice of Talent Cultivation Mode of Higher Vocational Colleges Based on Integration of Industry and Education. *Journal of Yellow River Conservancy Technical Institute*, 33(1), 55-58.
- [2] Li, Q. (2021). Analysis and practice on the training of key ability of students majoring in electronic information in higher vocational education. *Procedia Computer Science*, 183, 791-793.
- [3] Dobbo, T. L. (2018). Higher vocational education reform: Matching skills to markets in China. *International Journal of Educational Studies*, 5(2), 79-89.
- [4] Gao, Z., & Yu, T. (2020, March). Research on the development of higher vocational education in China in the 21st Century. In 4th International Conference on Culture, Education and Economic Development of Modern Society (ICCESE 2020) (pp. 742-745). Atlantis Press.
- [5] Shi, J., & Chen, M. (2023, November). The visual data analysis of the comprehensive ability of vocational undergraduates (Take the Hainan Science and Technology Vocational University). In 2023 13th International Conference on Information Technology in Medicine and Education (ITME) (pp. 88-93). IEEE.
- [6] Webb, S., Bathmaker, A. M., Gale, T., Hodge, S., Parker, S., & Rawolle, S. (2017). Higher vocational education and social mobility: educational participation in Australia and England. *Journal of Vocational Education & Training*, 69(1), 147-167.
- [7] Guo, X., & Chai, Y. (2018). Vocational students' professional ability: quantitative reconstruction and evaluation. *International Journal of Continuing Engineering Education and Life Long Learning*, 28(2), 156-168.
- [8] Sa-Nguanmanasak, T., & Khampirat, B. (2019). Comparing employability skills of technical and vocational education students of Thailand and Malaysia: A case study of international industrial work-integrated learning. *Journal of Technical Education and Training*, 11(3).
- [9] Arfandi, A., & Sampebua, O. (2018). The Study of Vocational Higher Education Graduates Skills That Requires in Industry. *Advanced Science Letters*, 24(5), 3632-3635.
- [10] Dehghani, A. (2020). Factors affecting professional ethics development in students: A qualitative study. *Nursing ethics*, 27(2), 461-469.

- [11] Sari, Y. I. H., Soelistiyowati, E., & Yuanti, E. E. (2020). Work ethics profile of vocational college students in Indonesia. *Jurnal Pendidikan Vokasi*, 10(3), 260-269.
- [12] Jang, J. H., Hwang, Y. S., & Lee, S. M. (2021). Level of perception of professional ethics education and the knowledge and attitudes related to medical ethics of students and professors in dental hygiene. *Journal of Korean society of Dental Hygiene*, 21(1), 77-88.
- [13] Wen, L., Luo, Z., & Cai, L. (2021). An analysis of the implementation effects of new paths and methods of occupational ethics education for medical students in higher vocational colleges. *American Journal of Translational Research*, 13(6), 6399.
- [14] Spirovska, E. (2019). Reader-response theory and approach: Application, values and significance for students in literature courses. *Seeu Review*, 14(1), 20-35.
- [15] Brokerhof, I. M., Sucher, S. J., Matthijs Bal, P., Hakemulder, F., Jansen, P. G., & Solinger, O. N. (2023). Developing moral muscle in a literature-based business ethics course. *Academy of Management Learning & Education*, 22(1), 63-87.
- [16] Du, Q. (2023). Research on Curriculum Setting and Evaluation of Cultural Quality Education in Higher Vocational College. *International Journal of New Developments in Education*, 5(11).
- [17] Wang, Z. (2020, December). Development, Validity, and Reliability of the Humanistic Literacy and Employment Ability Scales for Vocational School Students. In 2020 6th International Conference on Social Science and Higher Education (ICSSHE 2020) (pp. 562-566). Atlantis Press.
- [18] Vinokurova, N. A., & Tabachnikova, O. (2020, September). The role of literary education in semiotics of professional behaviour: a socio-cultural study of Russian students. In 4th International Conference on Art Studies: Science, Experience, Education (ICASSEE 2020) (pp. 385-393). Atlantis Press.
- [19] Maryam Kabirian, Ehsan S Gooshki & Talat Khadivzadeh. (2024). The Process of Professional Ethics Development in Midwifery Students: A Grounded Theory Study. *Iranian journal of nursing and midwifery research*, 29(3), 302-308.
- [20] B. Odoi, S. Samita, S. Al-Hassan & S. Twumasi-Ankrah. (2019). Efficiency of Bartlett and Levenes Tests for Testing Homogeneity of Variance Under Varying Number of Replicates and Groups in One – Way ANOVA. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 8(6s4), 1219-1223.
- [21] Chatzi Anna V. (2025). Understanding the independent samples t test in nursing research. *British Journal of Nursing*, 34(1), 56-62.