

Teachers' professionalism, career planning, and professional development in higher vocational colleges

Ben, Guozhi✉

Graduate School, Lyceum of the Philippines University – Batangas (benguozi@gmail.com)

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Abstract

With the popularization of higher education in China, the professionalism, career planning and professional development of teachers in higher vocational colleges have become increasingly critical. The goal of this study is to explore three relationships, and to provide some valuable suggestions. It adopts the method of comprehensive analysis and case study. It conducts a comprehensive review of the theories, and deeply analyzes the internal connections and mutual influences between them. The study found that teachers' professionalism is the key element for them to become excellent teachers. Teachers need to have solid subject knowledge, good teaching skills, high educational and teaching research capabilities and high teacher professional ethics. Teacher career planning, as a systematic development process, plays a vital role in teachers' personal growth and career development. Teacher career planning needs to be considered from a long-term perspective, focusing on personal self-awareness and self-positioning. Teacher development is a dynamic process that requires teachers to continuously learn, reflect and grow. Vocational colleges should provide teachers with diverse development opportunities and platforms, including participating in education and teaching research projects, participating in academic seminars, and exploring teaching practices. Teachers can also broaden their horizons and knowledge by studying abroad and participating in teacher exchange programs. The higher vocational colleges need to build teacher evaluation and incentive mechanisms to encourage teachers to take part in various educational reforms and teaching innovation activities.

Keywords: teachers' professionalism, career planning, professional development, higher vocational colleges

Teachers' professionalism, career planning, and professional development in higher vocational colleges

1. Introduction

The purpose of the research is to explore and analyze the relationship between teachers' professionalism, career planning and professional development in higher vocational colleges, in order to provide suggestions for problems existing in the professional development of teachers in higher vocational colleges. Specifically, this study will be carried out from the following aspects: a systematic review of the connotation of teachers' professionalism in higher vocational colleges, including teachers' characters, commitment to change and continual improvement, subject and pedagogical knowledge, and obligations and working relationships beyond the classroom. The researcher analyzes the connotation of teacher career planning, including career goals and strategies, career exploration, continuous learning and a focus on relationships, and probes into the important role and significance of teacher career planning so as to achieve the common development. The researcher studies the connotation of teacher development, including professional knowledge, professional competence, professional affection and professional growth, and explores how vocational colleges should provide good development environment and opportunities for teachers. Therefore, some effective strategies and suggestions are put forward to promote the professional development in higher vocational colleges. In the current background of higher education in China, the higher vocational colleges have become important. Higher vocational education aims at cultivating application-oriented and technical students to meet the needs of high-quality technical talents for social and economic development. Therefore, the teacher's professionalism, career planning and professional development in higher vocational colleges play a key role in the quality (Okolie et al., 2020).

First of all, the teacher professionalism is the basis to ensure that students acquire professional knowledge and skills. Higher vocational education is characterized by a close combination of practical and employment-oriented, therefore, teachers in colleges must have solid professional knowledge and skills, and be able to train students to adapt to the needs of work (Shaheen et al., 2020). Secondly, teachers' career planning is very important for the professional development and career planning of teachers. Teachers' career planning is the planning and positioning of teachers for their future career path and goals, which covers the selection, development and promotion of teachers in the teaching profession. Only with a clear career plan for teachers can the researcher make use of our professional strengths, avoid our weaknesses and bring our strengths into educate, so that researcher can achieve our personal career development goals (Chaaban et al., 2020). Finally, teachers' development refers to the continuous improvement and progress of teachers in the aspects of work experience, personal growth and professional development. Teachers' professional development is not only related to personal growth and progress, but also has a impact on the quality of education and the learning effect of students. Therefore, teachers' professional development is an important guarantee for the quality and sustainable development in colleges (Fang et al., 2020).

Teachers' professionalism refers to the combination of professional knowledge and skills, teacher ethics, class management and other practices that teachers possess in the teaching process. It primarily includes aspects of the teacher's character, commitment to change and continual improvement, subject and pedagogical knowledge and obligations and working relationships beyond the classroom (Mohd, et. al., 2020).

Teachers' career planning means that teachers formulate their own career goals according to their actual situation and social development needs, including long-term career goals, medium-term career goals and short-term career goals. Teacher career planning is an all-round planning process for teachers' career development path, which mainly includes career goals and strategies, career exploration, continuous learning, and attention to interpersonal relationships (Wei et al., 2021). Teacher professional development is the

development process of teachers as career from novice teachers to expert teachers. It mainly includes professional knowledge, professional competence, professional affection, and other aspects. The structure of teacher's professional development includes multiple dimensions such as educational theoretical knowledge, subject professional knowledge and teacher's professional ethics. The comprehensive effect of these dimensions determines the level of teacher's professional development (Dai, 2021). Teachers' professionalism, career planning and professional development of teachers in colleges are closely related and influence each other, which constitute important factors for teachers' overall development. The professionalization of teachers is the basis of professional development. By continuously improving professional quality and expanding subject knowledge, teachers can better adapt to educational changes, improve teaching level and promote personal career development. Career planning can help teachers better plan their professional development direction and make professional development more targeted and sustainable (Richit, et. al., 2024).

Specialization provides specific support and foundation for career planning, and career planning helps teachers to develop their own specialization in a more targeted way. In higher vocational colleges, teachers achieve their personal career goals by continuously improving their professional level and formulating clear career plans, and contribute to the improvement of the overall education quality of the colleges. These three interweave together to build the vocational development system of teachers in colleges (Tahiru, 2021). This research has significant implications for teachers, students, schools and educational institutions. For teachers themselves, teachers can clearly understand the professionalism of teachers, so as to formulate effective medium and long-term career planning, so as to promote the teachers' professional development. For the school, it is beneficial to improve the overall level of the school, so as to promote the professional development of the school. For educational institutions, decision-makers can inform decisions to improve the level of vocational education. Therefore, this researcher has theoretical and practical significance.

Objectives of the Study - The research aimed to determine teachers' professionalism, career planning and professional development in higher vocational colleges. This research determined the teachers' professionalism, career planning, and career development of three hundred ninety-eight teachers in higher vocational colleges. It described the age, sex, educational background, length of service, marital status, teacher type, and so on. It determined the status of teachers' professionalism, career planning, and career development. It tested the mediating role of teachers' career planning and measures the degree of mediating effect of career planning. It tested the relationship between the teachers' professionalism, career planning, and career development in colleges. Based on the results of this study, some suggestions were proposed to promote the training development plan.

2. Methods

Research Design - The data for the study was collected through a standardized questionnaire appropriate to the questions in the study, using quantitative descriptive methods. The data results of the study were written to be descriptive in the sense that it describes the personal and professional profiles of the respondents. This study was quantitative and also identified the relationship between teachers' professionalism, career planning and professional development.

Participants of the Study - Five hundred questionnaires were distributed to respondents through Questionnaire Star, with three hundred ninety-eight valid questionnaires. The target participants of this survey are teachers in higher vocational colleges who will answer questionnaires on teacher professionalism, career planning and professional development. This research aims to obtain the insights of teachers in higher vocational colleges on professionalism, career planning and professional development, and to gain an in-depth understanding of teachers' views on professionalism, career planning and professional development. The participant selection process used a random method to select respondents from ten different higher vocational colleges in Zhejiang Province, China. Within each selected school, forty teachers spanning management roles, administrative positions were optioned to guarantee a representative cross-disciplinary perspective. The careful

sample survey collects effective responses from teachers who are involved in the dynamic state of higher vocational colleges in Zhejiang Province, providing valuable insights into teachers' career development and professional development.

Data Gathering Instruments - This study was conducted mainly by using questionnaires. The questionnaire was divided into four sections: demographic data, teachers' professionalism, teachers' career planning, and professional development. To prevent language barriers that might confuse the answers, the questionnaires were provided in both Chinese and English. All of them were in multiple choice format. Mohd, et. al., (2020), Wei et al., (2021) and Dai (2021) were incorporated. This study verified and tested the reliability of the questionnaire. On the one hand, the questionnaire mainly introduced the participants, including relevant information such as sex, age, educational background, marital status, and years of service at the university. On the other hand, it included the assessment of teachers' professionalism, teachers' career planning and teachers' professional development. The questionnaire was based on a four-point Likert-type Scale, four means strongly agree, three means agree, two means disagree, and one means strongly disagree. Forty questionnaires were distributed to teachers of higher education colleges in the initial phase of the study; thirty-five were returned and thirty were declared valid studies. The internal consistency coefficient was used to evaluate the coefficient of the scale. It can be seen that the Cronbach Alpha coefficients of the subscales range from 0.831 to 0.953. Therefore, the internal consistency reliability coefficients of the subscales and the whole questionnaire are more than 0.70, which indicates that the scale has good internal consistency and high reliability.

Data Gathering Procedure - When contacting each participant, the researcher explained the purpose and significance of the study to them by phone or email. For the questionnaires collected on that day, while explaining the purpose of the research, the researcher also thanked them for their timely participation and support, emphasizing the importance of their feedback to the research. For those questionnaires that were collected over a two-week period with the help of friends, the researchers contacted participants to express gratitude for their extra effort, for taking time out of their busy schedules to participate in the research. For online surveys delivered via email, researchers mentioned the survey convenience when contacting participants and thanked them for taking advantage of this method to take part in the study, emphasized the importance of their feedback to the study, and thanked them for their Support and cooperation. Through these careful connections and explanations, the researchers ensured that participants fully understood and supported the study, while also expressing gratitude for their efforts.

Data Analysis - During the data analysis, a variety of statistical tools were used to gain an in-depth understanding of the profile of the respondents and the relationships between variables. The researcher conducted a frequency distribution analysis of the respondent profiles. This step aims to understand the basic characteristics and composition of the respondents, such as age, sex, education level, etc. Frequency distributions provide a clear understanding of the composition of the respondent population and provide a basis for subsequent analysis. Weighted average and ranking to calculate the average of the data. This calculation method takes into account the weights of different variables, thereby more accurately reflecting the characteristics. Through weighted averages and rankings, the researcher is able to obtain a more comprehensive and accurate description of the data set. The researcher conducted a normality test and used the Shapiro-Wilk result test to verify whether the data were normally distributed. The results show that the p-values for the three main variables are under 0.05, indicating that this data set is not normally distributed. The researcher needs to use non-parametric statistical methods for further analysis. In order to test for significant relationships between the three main variables, the research used the Spearman rho correlation coefficient. This method can effectively evaluate the correlation between variables, especially for non-normally distributed data. Through the Spearman rho correlation coefficient, the researcher can determine whether the relationship between the three variables of teacher professionalism, career planning and professional development is significant, and further explore the direction and strength of their correlation.

Finally, the researcher used the Mann-Whitney U test and the Kruskal Wallis test to compare the differences

in variables between different groups. Both methods are non-parametric testing methods for non-normally distributed data and can effectively evaluate significant differences between different groups. Through these tests, the researcher can understand the differences between different groups on the main variables, so as to delve into the influencing factors and possible trends. It is worth noting that the researcher used a Likert scale to assess the variables, which included different options. This scale can capture the attitudes and opinions of respondents in more detail, providing richer information for data analysis. All analysis processes were performed in SPSS version twenty-eight software, and an alpha level of 0.05 was used to further interpret the research results. Through these detailed analysis steps, the researcher can comprehensively understand the characteristics and patterns of the data set, providing a reliable basis for the interpretation and application of the research results.

Ethical Consideration - Before conducting this study, the researcher fully considered ethical considerations and ensured the legality, fairness, and transparency of the research. The following is a detailed description of the ethical measures the researcher took during the course of our research: Firstly, the researcher obtained approval from LPU-B Research Ethics Committee to ensure that the study complied with ethical standards and regulatory requirements. The committee reviewed the study's aims, methods, and participant protection measures and approved our continued study. Researcher employed several tools to explain the purpose and significance of the study, including a cover letter that was distributed to all study respondents. This was done to ensure that respondents fully understood the purpose of the study and were clearly aware that their participation was voluntary. Questionnaires were distributed both online and in person. The online distribution uses the Sojump APP, which is a platform that facilitates respondents to access and fill out the questionnaire, which helps to increase the return rate of the questionnaire. In order to protect the personal information of the respondents, no names are required to be filled in in the questionnaire, and all personal information will be treated confidentially. During regular information sessions, the researcher provided all participants with the opportunity to ask questions and learn more about the study aims and methods. This type of communication helps create a transparent and open research environment where participants feel more trusting and comfortable. All participants provided written consent and received a participant information sheet for future use. They were expressly informed that they had no obligation to cooperate and that all cooperation could be terminated at any time without any adverse consequences. To protect the anonymity of interviewees, the names of participating institutions and interviewees have been redacted or hidden, and pseudonyms have been used. In addition, the researcher stores electronic data on password-protected computers and paper data in locked filing cabinets to ensure the security and confidentiality of the data. To sum up, the researcher fully considered ethical considerations before conducting research and took some measures to protect the rights and interests of respondents and the security of data to ensure the legitimacy and reliability of the research.

3. Results and discussion

Table 1
Summary Table on Teacher's Professionalism

Indicators	Weighted Mean	Verbal Interpretation	Rank
Teacher's Characters	2.95	Agree	3.5
Commitment to change and continual Improvement	2.96	Agree	1.5
Subject and pedagogical knowledge	2.95	Agree	3.5
Obligations and Working Relationships Beyond the Classroom	2.96	Agree	1.5
Composite Mean	2.95	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 1 summarizes the various indicators of teacher professionalism and reflects a consistent pattern of agreement across all indicators, indicating that respondents generally have a positive view of teacher professionalism. Composite mean of 2.95 reflects that respondents were generally in agreement about teacher professionalism across the dimensions examined. "Commitment to Change and continual Improvement" and "Obligations and Working Relationships beyond the Classroom" had the highest weighted mean of 2.96 and ranked 1.5. This indicates a strong commitment to continuous improvement and responsibilities outside the

classroom, reflecting a strong commitment to professional development and an emphasis on working with colleagues, students, and parents. as well as an emphasis on continuous learning and positive relationships with colleagues, students, and parents as essential to effective teaching practice. This is consistent with existing literature that emphasizes the importance of continuous learning and fostering positive relationships for effective teaching practice (Cordova et al., 2022).

The indicators "Teacher Character" and "Subject and Pedagogical Knowledge" both had a weighted mean of 2.95 and were ranked 3.5. The indicates that the respondents agreed with the professionalism of the teachers and their proficiency in subject and pedagogical knowledge. These findings emphasize the multifaceted nature of teacher professionalism, including personal attributes and pedagogical expertise.

Table 2
Summary Table on Teacher's Career Planning

Indicators	Weighted Mean	Verbal Interpretation	Rank
Career Goals and strategies	2.97	Agree	1
Career Exploration	2.95	Agree	3
Continuing Learning	2.94	Agree	4
A focus on relationship	2.96	Agree	2
Composite Mean	2.95	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49= Strongly Disagree

Table 2 provides a comprehensive overview of all aspects related to teachers' career planning, including career goals and strategies, career exploration, continuing learning, and a focus on relationships. The composite mean for all indicators was 2.95, indicating that teachers were generally consistent in their career planning.

The indicator with the highest weighted mean was "career goals and strategies" with a mean of 2.97, indicating that teachers were particularly concerned about developing career goals and strategies. This highlights their proactive approach to career development as setting clear career goals helps to drive professional development (Alam, et. al.,2023). This was closely followed by 'relationship orientated' with a mean of 2.96, which suggests that teachers are more interested in building positive relationships with colleagues and school leaders. This tendency to focus on relationships is consistent with the emphasis in research on the importance of supportive relationships in enhancing teacher well-being and productivity (Bardach et al., 2022). The indicator with the lowest weighted mean was 'Continuing to learn' at 2.94, and although teachers' commitment to CPD is still within the recognized range, the results suggest that there is room for improvement. This finding highlights the need to provide adequate resources and opportunities for teachers to involve in continuous learning in order to increase productivity and satisfaction (Kilag, et. al.,2023). Although teachers are generally consistent in all aspects of their career planning, opportunities for advancement exist, particularly in the area of continuing learning. By creating supportive environments and providing opportunities for continuing professional development, educational institutions can better support teachers in achieving their career goals, thereby effectively contributing to student learning outcomes.

Table 3
Summary Table on Teacher's Professional Development

Indicators	Weighted Mean	Verbal Interpretation	Rank
Professional Knowledge	2.97	Agree	1
Professional Competence	2.95	Agree	3
Professional Affection	2.96	Agree	2
Professional Growth	2.93	Agree	4
Composite Mean	2.95	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49= Strongly Disagree

Table 3 indicates that teachers are generally consistent in all aspects of their professional development. The indicator with the highest weighted mean was "professional knowledge" with a score of 2.97. Teachers generally showed confidence in their subject knowledge and its relevance in their teaching responsibilities. This implies that teachers perceive themselves as having solid subject matter expertise, which is essential for effective

teaching and learning. The findings emphasised the significance of subject knowledge for teaching effectiveness (Tondeur et al., 2020).

This was closely followed by 'professional affection' with a weighted mean of 2.96, reflecting teachers' emotional connection to their profession. Establishing this emotional connection is critical because it contributes to job satisfaction, motivation, and overall well-being, and the importance of teacher satisfaction and commitment to the profession to teacher retention and student performance was highlighted (Bardach & Perry, 2021). Professional competence ranked third with a mean score of 2.95, indicating that teachers were confident in their ability to teach in the areas of pedagogy, assessment practices, and participation in professional development. Despite the overall positive attitude, there is room for improvement in some areas to enhance overall professional competence (Rusilowati & Wahyudi, 2022). Finally, "professional growth" ranked fourth with an average score of 2.93. Teachers agreed that their professional development was progressing, while recognising that there was still room for improvement in some areas. This underscores the significance of continuing professional development in promoting teachers' professional growth and skill enhancement (Niati et al., 2021).

Table 4
Relationship Between Teacher's Professionalism and Teacher's Career Planning

Teacher's Characters	rho-value	p-value	Interpretation
Career Goals and strategies	.837**	0.000	Highly Significant
Career Exploration	.842**	0.000	Highly Significant
Continuing Learning	.857**	0.000	Highly Significant
A focus on relationship	.850**	0.000	Highly Significant
Commitment to change and continual Improvement			
Career Goals and strategies	.855**	0.000	Highly Significant
Career Exploration	.849**	0.000	Highly Significant
Continuing Learning	.837**	0.000	Highly Significant
A focus on relationship	.854**	0.000	Highly Significant
Subject and pedagogical knowledge			
Career Goals and strategies	.839**	0.000	Highly Significant
Career Exploration	.849**	0.000	Highly Significant
Continuing Learning	.840**	0.000	Highly Significant
A focus on relationship	.850**	0.000	Highly Significant
Obligations and Working Relationships Beyond the Classroom			
Career Goals and strategies	.856**	0.000	Highly Significant
Career Exploration	.838**	0.000	Highly Significant
Continuing Learning	.838**	0.000	Highly Significant
A focus on relationship	.857**	0.000	Highly Significant

Legend: Significant at p-value < 0.05

Table 4 presents the Relationship Between Teacher's Professionalism and Teacher's Career Planning. Of these dimensions, 'Focus on Relationships' had a particularly high rho value of 0.857, suggesting that teachers who prioritize continuous learning are more likely to have clear career goals, actively explore career opportunities and focus on building professional relationships. This is consistent with earlier research that emphasized the significance of lifelong learning in teachers' professional development (Mlambo, et. al., 2021). The continued significance of continuous learning in teachers' career planning highlights the need for teachers to stay current and continue to seek development opportunities to adapt to the changing demands of the profession (Lesort et al., 2020). The finding underlines the critical importance of professional development in shaping teachers' career trajectories as it empowers them to adapt to new goals and strategies. On the other hand, although all dimensions showed significant correlations, career exploration had a slightly lower rho value compared to the other dimensions. Nevertheless, this finding highlights the strong link between teacher professionalism and career planning and emphasizes the need for teachers to actively explore diverse career paths and development opportunities (Moser, et. al., 2020).

Table 5 overall composite mean: highly significant (p value < 0.01). It examines the relationship between

the dimensions of teacher professionalism and teacher professional development. These dimensions include professional knowledge, professional competence, professional affect, and professional growth. Each dimension was assessed on the basis of commitment to change and continual improvement, subject and pedagogical knowledge, and obligations and working relationships beyond the classroom.

Table 5
Relationship Between Teacher's Professionalism and Teacher's Professional Development

Teacher's Characters	rho-value	p-value	Interpretation
Professional Knowledge	.849**	0.000	Highly Significant
Professional Competence	.853**	0.000	Highly Significant
Professional Affection	.855**	0.000	Highly Significant
Professional Growth	.854**	0.000	Highly Significant
Commitment to change and continual Improvement			
Professional Knowledge	.852**	0.000	Highly Significant
Professional Competence	.855**	0.000	Highly Significant
Professional Affection	.839**	0.000	Highly Significant
Professional Growth	.844**	0.000	Highly Significant
Subject and pedagogical knowledge			
Professional Knowledge	.870**	0.000	Highly Significant
Professional Competence	.858**	0.000	Highly Significant
Professional Affection	.837**	0.000	Highly Significant
Professional Growth	.844**	0.000	Highly Significant
Obligations and Working Relationships Beyond the Classroom			
Professional Knowledge	.846**	0.000	Highly Significant
Professional Competence	.857**	0.000	Highly Significant
Professional Affection	.839**	0.000	Highly Significant
Professional Growth	.870**	0.000	Highly Significant

Legend: Significant at p-value < 0.05

The dimension with the highest weighted mean across all categories was subject matter and pedagogical knowledge, with rho values of 0.870 for professional knowledge and professional growth, and 0.858 for professional competence. These results highlight the strong link between teacher professional development and these dimensions. Teachers with deep subject matter and pedagogical knowledge typically experience more significant professional growth, a finding that is consistent with the conclusions of their research on the correlation between pedagogical knowledge and teacher effectiveness (Santos, et. al.,2021). The importance of the close correlation between them and teacher professional development is highlighted by the fact that professional affect and professional competence maintain a priority position in all categories, especially the role that professional competence plays in promoting teacher growth and development (Litvinenko et al., 2022). The dimension with the lowest weighted mean was commitment to change and continuous improvement in relation to professional affection, with the rho value of 0.839. Whilst still highly significant, this suggests a slightly weaker correlation compared to the other dimensions. This could mean that although commitment to change and improvement is important, it may not be as directly related to occupational affect as the other factors. However, further research is needed to explore this relationship in more depth.

The strong association between teachers' professionalism and professional development highlights the key of continual growth and improvement in enhancing teaching effectiveness and academic achievement, suggesting that educational institutions should promote a culture that actively supports teacher professional development (Sancar et al., 2022). Additionally, a focus on enhancing subject and pedagogical knowledge can significantly contribute to teachers' professional development, thereby creating more favorable conditions for student success (Mellow et al., 2022). Additionally, promoting positive professional emotions and commitment to change can enhance the impact of professional development initiatives on teacher efficacy and job satisfaction, thereby increasing the overall level of educator performance (Ortan, et al., 2022).

Table 6 illustrates the relationship between teachers' career planning and their professional development, providing rho values and corresponding p-values for each dimension. There was a highly significant positive correlation ($p < 0.01$) between teacher career planning and their professional development. Specifically, the

dimensions of career goals and strategies, career exploration, continuous learning, and attention to relationships showed strong associations with different aspects of professional development.

Table 6

Relationship Between Teacher's Career Planning and Teacher's Professional Development

Career Goals and strategies	rho-value	p-value	Interpretation
Professional Knowledge	.849**	0.000	Highly Significant
Professional Competence	.867**	0.000	Highly Significant
Professional Affection	.833**	0.000	Highly Significant
Professional Growth	.845**	0.000	Highly Significant
Career Exploration			
Professional Knowledge	.860**	0.000	Highly Significant
Professional Competence	.831**	0.000	Highly Significant
Professional Affection	.847**	0.000	Highly Significant
Professional Growth	.853**	0.000	Highly Significant
Continuing Learning			
Professional Knowledge	.848**	0.000	Highly Significant
Professional Competence	.840**	0.000	Highly Significant
Professional Affection	.842**	0.000	Highly Significant
Professional Growth	.852**	0.000	Highly Significant
A focus on relationship			
Professional Knowledge	.847**	0.000	Highly Significant
Professional Competence	.857**	0.000	Highly Significant
Professional Affection	.857**	0.000	Highly Significant
Professional Growth	.847**	0.000	Highly Significant

Legend: Significant at p -value < 0.05

In particular, "career competence" had the highest rho values across all dimensions, ranging from 0.831 to 0.867, and was particularly strongly correlated with career planning. This suggests that teachers who actively develop career goals and strategies typically demonstrate higher levels of professional competence, which is consistent with earlier research emphasizing the importance of goal setting in professional development (Li, et. al., 2023).

In addition, the dimensions of career exploration and continuous learning were also significantly associated with professional development, with rho values ranging from 0.831 to 0.860 and 0.840 to 0.852, respectively. This suggests that teachers' efforts to actively explore career opportunities and continuous learning are important for enhancing their professional development and professional competence (Drewery et al., 2020). In contrast, "professional affection", although slightly lower than the other dimensions in rho, still had a highly significant correlation with professional development. This dimension emphasizes the importance of teachers being emotionally invested in the teaching process, suggesting that teachers who are emotionally invested in their careers tend to experience more professional competence and growth.

A Faculty Development Plan

The researcher proposed a strategic plan based on the results of this study: the professional and curricular diagnosis and improvement plan (PCDIP), taking into account the areas in which respondents rated the lowest: the period from March 2023 to 2028. Teacher Training and Development Programs for Chinese Higher Vocational College Teachers is as follow:

Table 7

Teacher Training and Development Programs for Chinese Higher Vocational College Teachers

Objectives	Strategies/ Activities	Success / Performance Indicator	Persons Involved
To enhance Teacher Professionalism of Teachers in Higher Vocational Colleges.	China's higher vocational colleges recognize the importance of teachers' professionalism and career planning in their professional development. Chinese higher vocational colleges pay attention to teachers' professionalism.	Teachers of higher vocational colleges have a total of no less than 32 credit hours of courses, have completed at least two (2) periods of online teaching or online-offline blended teaching practice on the course platform, and have good teaching results among similar courses. The teacher professionalism test pass rate of teachers in higher vocational colleges is more than	Teachers from higher vocational colleges in Zhejiang Province, China, teachers from higher vocational colleges from the Academic Affairs Office, secondary colleges and universities, directors

	Teachers in higher vocational colleges can enhance their professionalism by participating in online and offline training.	90%, and the excellence rate is more than 10%. The teacher professionalism of teachers in higher vocational colleges and universities is included in the indicator system for professional and curriculum diagnosis and improvement.	of teaching and research departments/professional directors, and teachers who are in charge of the programs.
To enhance the career planning of teachers in Higher Vocational Colleges.	The school provides teachers with various opportunities for learning and training, and encourages them to go to enterprises for job training during winter and summer holidays, so as to cultivate compound teachers who combine theory and practice. Teachers in higher vocational colleges borrow artificial intelligence to assess their own career plans and formulate their own career plans for teachers.	Teachers of higher vocational colleges actively participate in career planning competitions and make reasonable career plans according to the characteristics of their majors and courses. To create fine courses with special characteristics based on the characteristics of the curricula of higher vocational colleges. The career planning of teachers in higher vocational colleges is included in the index system for diagnosis and improvement of majors and courses.	School Teaching and Learning Management Department Teachers from higher education colleges from the Academic Affairs Department, secondary colleges, Heads of Departments/Professional Directors, and Program Leaders
To enhance the professional development of teachers in Higher Vocational Colleges.	Higher vocational colleges provide various learning opportunities for teachers. Higher vocational colleges provide a platform for teachers to participate in professional development training and skills competitions, and teachers are estimated to participate in the competitions. Teachers in higher vocational colleges participate in professional skills training and competitions, thereby enhancing their professional development capacity.	Higher vocational colleges conduct professional and curricular assessments of teachers, comprehensively assessing their teaching skills, pedagogical knowledge, teacher ethics, classroom management skills, professional building skills, and curricular building skills. Encourage outstanding teachers, especially those who have won awards in national competitions, to share their professional and curricular experiences, and carry out the sharing of competition experiences in the form of symposiums and group meetings, so as to promote teachers' professional development. The professional development of teachers in higher vocational colleges will be included in the indicator system for professional and curriculum diagnosis and improvement.	Department of Professional and Curriculum Development in Schools. Professional organizations and unions for teachers. Teachers from higher vocational colleges from the Academic Affairs Department, secondary schools, Heads of Faculty/Professional Directors, Program Leaders, Team Members.

4. Conclusions and recommendations

Respondents were predominantly female (55.0%) and male (45.0%), with 42.7% of the respondents aged 45 and below and 49.7% married. Younger and married teachers showed better literacy and planning tendencies and demonstrated higher levels of participation in the survey. Higher vocational colleges demonstrated high levels of professional professionalism across a variety of dimensions, including teachers' characters, commitment to change and continuous improvement, subject and pedagogical knowledge, and obligations and working relationships beyond the classroom. Despite minor variations in individual indicators, the composite mean scores indicate an overall agreement among respondents on their level of professionalism. Higher vocational colleges are proactive in their career planning, demonstrating a developed professional development plan and a commitment to their current teaching position. In addition, the teacher expressed a willingness to explore a variety of teaching opportunities while maintaining confidence in their professional development strategies. Teachers in higher vocational colleges engage in professional development activities to enhance their teaching knowledge and competencies, which includes a strong emphasis on continuous learning, participation in workshops and trainings, and a commitment to lifelong learning. The relationship between the three variables (professionalism, career planning and professional development) was measured and it was found that there is a strong positive correlation between these variables as an increase in one of them may contribute to an increase in the other. Training and development program for Chinese higher vocational college teachers was proposed.

To improve teachers' professionalism, career planning and professional development in higher vocational colleges, schools should create a positive working environment, provide institutional support for career planning, and regular assessment and feedback mechanisms. Teachers in higher vocational colleges should conduct in-depth research and improve their professionalism, career planning and professional development programs. Through mentoring and peer support as well as technology integration, thereby promoting lifelong learning. Professional development for teachers in higher vocational colleges helps to improve their professionalism and career development. Therefore, schools design and implement tailored professional development programs to

meet the specific needs identified in this study. Professional programs in schools should focus on improving teachers' competencies in subject knowledge, teaching strategies, interpersonal relationships, and career planning. In considering the findings of this study, the inherent limitations need to be noted. The study was conducted on teachers in higher vocational colleges and was therefore influenced by the political, educational and cultural context of China, which may have had an impact on the results. In addition, the researcher's expertise in questionnaire design and data analysis limited the depth and breadth of the study. It is worth noting that this study represents only the views of teachers in higher vocational colleges and excludes the views of educational policy makers and school administrators. To compensate for these limitations, other relevant studies were cited to provide a fuller context and understanding.

5. References

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