

Professional Identity of Undergraduate Students in Pre-school Education: A Survey Study

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Abstract

Against the backdrop of declining fertility rates and structural adjustments in educational demand, undergraduate students in pre-school education face multiple challenges in terms of professional identity and career development. This study focuses on undergraduate students majoring in pre-school education in southern Sichuan, employing a mixed-methods approach (quantitative questionnaires and qualitative interviews) to investigate their levels of professional identity, motivations for career choice, and developmental challenges. The results indicate that the overall level of professional identity among pre-school education students is moderate. Key findings include: male students exhibited slightly lower professional identity (mean = 3.43) compared to female students (mean = 3.66); students' household registration significantly influenced their professional identity ($p = 0.049 < 0.05$); and significant differences in professional identity were observed between Han and ethnic minority students ($p = 0.000 < 0.05$). Additionally, significant differences in professional identity were found across different academic years. To enhance professional identity among pre-school education students, the study proposes the following recommendations: elevate the social status of preschool teachers through national and governmental policies; improve salary and employment guarantees for preschool teachers; strengthen the cultivation of students' professional skills and knowledge; and enhance the positive role of family education.

Keywords

Pre-school education; Professional Identity; Preschool Teachers.

1. Introduction

The pre-school education stage is a critical period for children's growth. The issuance of documents such as the "Opinions of the Central Committee of the Communist Party of China and the State Council on Deepening the Reform and Standardizing the Development of Preschool Education" indicates that the government and the public are paying increasing attention to preschool education (Wang, 2023). As statistics from the Ministry of Education show, the number of kindergartens nationwide has been increasing yearly. As of 2023, the total number of kindergartens in China reached 274,000, an increase of 76,000 compared to 2013, representing a growth of 38.2%. Against this backdrop, the quality of preschool education and the improvement of teacher competence have gradually become hot topics.

In pre-school education programs, students are a major source of future teachers. Preschool teachers' professional identity directly impacts their academic performance, future career choices, and professional abilities. Professional identity refers to an individual's psychological state where they subjectively accept their occupation and consciously commit to their profession (Tan, 2009). Undergraduate years are when individuals' professional identity typically stabilizes. Thus, accurately understanding preschool teachers' professional identity,

analyzing its influencing factors, and offering relevant training suggestions for pre-school education students are essential for promoting their future career development (Wang, 2023).

2. Literature Review

2.1. Review of Domestic Research Status

Preschool education is an essential part of China's education system, and the professional identity of preschool teachers has garnered significant academic attention. Researchers in domestic institutions and scholars in pre-school education and psychology have employed methods such as interviews, questionnaires, and literature analysis to study the professional identity of preschool teachers. Recognizing the importance of this research, this study reviews relevant academic papers and provides a brief critical analysis organized by research themes, summarizing current findings and outstanding issues to lay the groundwork for an in-depth exploration of the professional identity of undergraduate students in pre-school education.

2.1.1 Research on the Professional Identity of Preschool Teachers

Most research in China focuses on the current status, structure, and influencing factors of preschool teachers' professional identity. While international researchers have extensively studied teacher professional identity in general, there is relatively limited research specifically on preschool teachers. Studies indicate that the professional identity of preschool teachers is influenced by various factors. For instance, surveys conducted with preschool teachers in the Xinjiang Uygur Autonomous Region (Yao, 2018) and in Luoyang City (Sun, 2020) reveal relatively high levels of professional identity among kindergarten teachers in these regions. Studies have found that preschool teachers' professional identity is generally at an upper-middle level (Lv, 2019). However, interview surveys with teachers from private kindergartens in Wuhan indicate that their professional identity is relatively low, at a lower-middle level (Chen, 2016). Thus, it can be seen that factors such as kindergarten location, nature, and salary significantly influence the professional identity of preschool teachers.

Different researchers have categorized the professional identity of early childhood teachers into different dimensions, and the more common ones include three-factor, four-factor, five-factor and six-factor structures. Early childhood teachers' professional identity can be categorized into four dimensions: professional emotion, professional salary, professional environment and professional reputation (Li, 2013). Early childhood teachers' professional identity can be divided into five dimensions: including occupational will, occupational expectations, occupational cognition, occupational behavior and occupational emotion (Nie, 2019). Early childhood teachers' professional identity can be divided into six dimensions: including professional cognition, professional emotion, professional will, professional skills, professional expectations, and professional values (Wei, 2008). Although there are differences in the division of early childhood teachers' professional identity among researchers, it mostly involves the five dimensions of professional emotion, professional cognition, professional will, professional expectation, and professional value.

The professional identity of early childhood teachers is related to gender, age, teaching age and salary level (Lv, 2019); the professional identity of early childhood teachers is affected by different genders, different grades, and different family situations (Zhu, 2019); the professional identity of early childhood teachers is affected by ethnicity, academic qualifications, teaching age, age, marital status, location of the garden, salary level, and the nature of the kindergarten (Yao, 2018); Early childhood teachers' professional identity is significantly different on different career motives, different salary levels and different salary satisfaction, different ages and teaching ages, different titles, and different natures of kindergartens (Ding, 2009). From this, it can be seen that most scholars believe that different gender, different ethnicity and different salary will affect the professional identity of early childhood teachers (Mo et al, 2022).

To summarize, scholars at home and abroad have researched the professional identity of early childhood teachers in terms of structure, current situation and influencing factors, however, preschool undergraduates are the pre-service of early childhood teachers. Therefore, the current situation of preschool undergraduates' professional identity needs to be further explored on the basis of early childhood teachers' professional identity.

2.1.2 Research related to the professional identity of preschool education students

There are differences in the professional identity of preschool education students towards early childhood teachers. Taking 364 five-year college students, 266 three-year college students, 89 six-year undergraduate students and 163 four-year undergraduate students in College C as the research subjects, the result is that the professional identity of preschool education majors is at the upper-middle level, and the overall situation is relatively optimistic (Liu, 2016); conducting a study on preschool education majors' male students, the study concludes that the professional identity of pre-school education majors' male students is at the middle level, and the overall level of pre-school education majors' professional identity is at the middle level. identity overall level is in the middle level (Shi,2015); structured interviews with 20 preschool education majors concluded that the overall career identity of preschool education majors is on the upper side (Wang,2019); however, the study conducted by Latvia's National Service for Quality of Education pointed out that one-third of the students studying education majors are not interested in the prospect of working as educators in schools, which will affect their career choice. This shows that the professional identity of preschool education students as early childhood teachers is not satisfactory both at home and abroad.

Regarding the structure of professional identity of preschool education majors, different scholars have different classifications. For example, the professional identity of preschool education majors can be divided into five dimensions: vocational cognition, vocational emotion, vocational will, vocational values, and vocational readiness (Liu,2016); the professional identity of preschool education majors can be divided into five dimensions: vocational will, vocational expectation, vocational cognition, vocational behavior, and vocational emotion (Nie,2019); the professional identity of preschool education majors can be divided into four dimensions: career efficacy, career will, career values, and career expectations (Shi,2015). Scholars have not yet standardized the structure of professional identity of preschool education majors, but most of the scholars involve vocational cognition, vocational affect, vocational expectations, vocational will and vocational values.

Pre-school education students' career identity is affected by various aspects. For example, the professional identity of preschool education majors is affected by gender, grade, and hukou location (Chang,2020); the professional identity of preschool education majors is affected by family factors (Shi,2015); and there are differences in their professional identity in terms of grade, gender, and ethnicity (Liu,2016).

In summary, many scholars have conducted a lot of research on the professional identity of preschool education majors and achieved relatively rich results, but the research on the professional identity of preschool education undergraduates is still to be enriched, so this thesis researches on the problems, causes, and influencing factors of the professional identity of preschool education undergraduates.

3. Research Methods

3.1. Literature Research Method

Literature research method is an important means of academic research, which is mainly used to retrieve, analyze, compare and synthesize the existing literature to achieve an in-depth understanding and mastery of the research problem. Collecting domestic and international literature on the professional identity of preschool undergraduates, organizing, classifying,

comparing and summarizing, forming a comprehensive understanding of the current status and development trend of research in this field. Literature on professional identity of preschool education undergraduates There are a total of 43 relevant related research papers in China. In the study of professional identity of preschool undergraduates, content analysis is mainly used to extract information about the definition, influencing factors, manifestations and other aspects of professional identity, to provide empirical support for the construction of the theoretical framework. Literature research method is used to clarify the research topic and provide ideas for the professional identity of preschool undergraduates. Such as the definition of professional identity, influencing factors, manifestations and enhancement strategies.

3.2. Questionnaire Survey Method

Questionnaire survey method is a widely used social science research method to collect data from target groups by designing structured or semi-structured questionnaires to understand their attitudes, behaviors, opinions or experiences. In the field of preschool education, undergraduate students' professional identity has an important impact on their future career development, educational quality and industry stability. This study adopts the questionnaire survey method as the main research tool to provide empirical evidence for enhancing the professional identity of preschool undergraduates through systematic and scientific data collection and analysis.

This study was conducted by randomly sampling four colleges and universities in the southern Sichuan region to ensure that the samples could reflect the overall characteristics of preschool education undergraduates through random sampling. The collection process was standardized to reduce the influence of subjective factors and improve the objectivity of the data. The questionnaire survey was conducted anonymously to protect the privacy of the respondents, reduce their psychological pressure to express their views more truthfully, and improve the authenticity of the data.

3.3. Interview method

After the four undergraduate in the southern Sichuan area: respectively, Neijiang Normal College, Sichuan University of Light and Chemical Engineering, Mianyang Normal College and Yibin College, from which we learned that preschool students' view of preschool education as a career has changed dramatically. The change from pre-school educators only caring for young children to those who need to take care of a variety of skills and knowledge is a clear indication that the pre-school profession is becoming more and more scientifically oriented. Society has become less prejudiced against preschool education, and is looking at preschool education from a developmental perspective. Preschool students also have their own opinions and plans for the current form of pre-school education, respectively, from the graduate school, the public examination, the editorial and other aspects of efforts to contribute to the cause of pre-school education of their youth.

4. Survey Data and Analysis

4.1. Questionnaire Reliability and Validity Analysis

4.1.1. Reliability Analysis

The reliability of the questionnaire represents the reliability and consistency of the questionnaire, and the higher the coefficient of reliability indicates that the results of the test are more reliable. The Cronbach's reliability coefficient has a value of 0-1, which is the most commonly used reliability coefficient. Cronbach's alpha coefficient of reliability between 0 and 1 is the most commonly used coefficient of reliability. The criterion is as follows: Cronbach's alpha coefficient of reliability below 0.6 means that this questionnaire has low reliability and cannot be used; when the value is greater than 0.7, it means that the questionnaire has a

considerable degree of reliability; from the table, it can be seen that: the value of the coefficient of reliability is 0.968, which indicates that the research data have high quality of reliability, and it can be used for further analysis.

Table 1. Results of Reliability Analysis

	Correction Item Total Correlation (CITC)	Deleted alpha coefficients for item	Cronbach's α
T1.I think that being a kindergarten teacher makes me respectable.	0.571	0.968	0.968
T2. Being a kindergarten teacher is my interest in life.	0.706	0.967	
T3. I think kindergarten teachers have a good working environment and working conditions.	0.708	0.967	
T4. I think kindergarten teachers have a secure career.	0.716	0.967	
T5. Being a kindergarten teacher makes me stay a child forever.	0.724	0.967	
T6.My career as a kindergarten teacher stems from my love for the profession.	0.688	0.967	
T7. Being a kindergarten teacher makes my life full of passion and vigor.	0.752	0.966	
T8. I think kindergarten teachers are valued.	0.696	0.967	
T9. I feel happy when I hear words praising the profession of kindergarten teachers.	0.748	0.967	
T10. I get a sense of fulfillment as a kindergarten teacher.	0.752	0.966	
T11.Being a kindergarten teacher gives me a sense of happiness.	0.744	0.967	
T12.I will still work in the kindergarten teaching profession even if the conditions are hard in the future.	0.717	0.967	
T13. I will work as an early childhood teacher all my life in the future.	0.740	0.967	
T14. I will try my best to learn professional theoretical knowledge in order to be a qualified kindergarten teacher in the future.	0.701	0.967	
T15.Even if my parents disapprove, I will still choose to major in preschool education.	0.745	0.967	
T16. Even if I go to work in rural areas in the future, I will still stick to my position as a kindergarten teacher.	0.738	0.967	
T17. Being an early childhood teacher can realize my life value.	0.721	0.967	
T18. Being a kindergarten teacher can realize my ideal.	0.751	0.966	
T19. Being an early childhood teacher can be respected.	0.732	0.967	
T20. a qualified kindergarten teacher should have good dancing and drawing skills.	0.714	0.967	
T21. the profession of preschool education is important for social development.	0.726	0.967	
T22.The salary of kindergarten teachers will be higher and higher.	0.725	0.967	
T23.I will participate in early childhood teacher training to improve my ability willingness.	0.733	0.967	
T24. The career of early childhood teacher has good development prospects.	0.727	0.967	
T25. I am very satisfied with the working environment of early childhood teachers.	0.728	0.967	
T26.The job of early childhood teacher will give me support and appreciation from my family and friends.	0.744	0.967	

4.1.2. Validity Analysis

Validity is a measure of the validity of a questionnaire, this questionnaire was analyzed for validity using KMO and Bartlett's test of SPSS. The KMO value of this study is 0.977, the KMO value is more than 0.8, the research data is very suitable for extracting information (a good side reaction to the validity).

Table 2. Effectiveness analysis

KMO and Bartlett's test		
KMO value	0.977	
Bartlett Sphericity Check	Approximate chi-square (math.)	11564.444
	df	325
	p	0.000

4.2. Overall statistical analysis

According to the analysis shown in the table below, the overall career identity score of undergraduate students majoring in preschool education was 3.569, which is in the upper middle level (3 is the intermediate level), under the scoring criteria of the maximum score of 5 points. Among the four dimensions, undergraduate students majoring in preschool education had the highest score of career values (M=3.588), followed by career aspirations (M=3.581), career emotions (M=3.575), career perceptions (M=3.550), and career will (M=3.549), with the scores of "Career Perceptions" and "Career Will" at the middle level (3 being the middle level). "Career will" are lower than the overall mean.

Table 3. Five-dimensional averages

	Sample Size	Minimum Value	Maximum Values	Average Value	Standard Deviation	Median
Career Cognition	627	1.000	5.000	3.550	0.798	3.400
Career Emotions	627	1.000	5.000	3.575	0.808	3.500
Career Will	627	1.000	5.000	3.549	0.806	3.400
Career Values	627	1.000	5.000	3.588	0.801	3.600
Career Expectations	627	1.000	5.000	3.581	0.793	3.600
Overall	627	1.000	5.000	3.569	0.740	3.462

As can be seen from the table below, there are more questions in the "career expectations" dimension at the top, and more questions in the "career perceptions" dimension at the bottom. The highest scoring question was "T1. I think that being a kindergarten teacher will make me respectable." . The lowest scoring item was "T3, I think that kindergarten teachers have a good working environment and working conditions..."

Table 4. Comparison of scores for each dimension

Dimension	Title	Average Value	Arrange in order
Occupational Cognition	T1.I think being a kindergarten teacher will make me respectable.	3.732	1
Occupational Emotions	T6. my career as a kindergarten teacher stems from my love for the profession.	3.644	2
Occupational Expectations	T25. I am very satisfied with the working environment of kindergarten teachers.	3.638	3
Occupational Values	T17. Being a kindergarten teacher can realize the value of my life.	3.632	4
Occupational Expectations	T22. The salary of kindergarten teachers will be higher and higher.	3.617	5
Occupational Values	T21. The profession of preschool education is important for the development of society.	3.612	6
Occupational Expectations	T24. Early childhood teachers have good development prospects.	3.601	7
Occupational Cognition	T5. Being a kindergarten teacher makes me stay a child forever.	3.595	8
Occupational Intentions	T12. I will still work in the early childhood teaching profession even if the conditions are hard in the future.	3.593	9
Occupational Emotions	T10. I can get a sense of achievement as a kindergarten teacher.	3.592	10
Occupational Values	T20.A qualified kindergarten teacher should have good dancing and drawing skills.	3.587	11
Occupational Emotions	T9. I feel happy when I hear someone praising the kindergarten teaching profession.	3.585	12
Occupational Emotions	T11. being a kindergarten teacher gives me a sense of happiness.	3.569	13
Occupational Values	T19. being a kindergarten teacher gives me respect.	3.557	14
Occupational Will	T14. I will try my best to learn professional theoretical knowledge in order to be a qualified kindergarten teacher in the future.	3.553	15
Occupational Values	T18. Being a kindergarten teacher can realize my dream.	3.552	16
Occupational Intentions	T15.Even if my parents don't approve of it, I will still choose to major in preschool education.	3.549	17
Occupational Expectations	T26. the job of an early childhood teacher will give me support and appreciation from my family and friends.	3.539	18
Occupational Emotions	T8. I think early childhood teachers are valued.	3.537	19
Occupational Intentions	T16. even if I go to work in a rural area in the future, I will still stick to my position as an early childhood teacher.	3.528	20
Occupational Emotions	T7. being a kindergarten teacher can make my life full of passion and vigor.	3.52	21
Occupational Intentions	T13. I will work as a kindergarten teacher for the rest of my life.	3.52	22
Occupational Expectations	T23. I will participate in early childhood teacher training to improve my ability willingly.	3.512	23
Occupational Cognition	T4. I think the career of kindergarten teacher is secure.	3.504	24
Occupational Cognitions	T2. being a kindergarten teacher is my interest in life.	3.48	25
Occupational	T3. i think the working environment and working conditions of kindergarten teachers are good.	3.439	26

4.3. Analysis of the survey situation on each dimension

4.3.1. Occupational identity of preschool undergraduates on different demographic variables

4.3.1.1 Gender and occupational identity of preschool majors

The independent samples t-test found that there is a gender difference in occupational identity of preschool majors ($P=0.000<0.05$). From the mean value, male students' occupational identity ($P=3.43$) was slightly lower than female students' ($P=3.66$), which was the same as previous studies on occupational identity.

Table 5. Occupational Identification by Gender Differences

Analysis Item	Gender	Sample Size	Mean	Standard Deviation	T-Test	Significance
Career Cognition	M	238	3.43	0.79	-3.083	0.002**
	F	389	3.63	0.79		
Career Emotions	M	238	3.43	0.81	-3.416	0.001**
	F	389	3.66	0.80		
Career Will	M	238	3.41	0.79	-3.394	0.001**
	F	389	3.63	0.80		
Career Values	M	238	3.45	0.79	-3.473	0.001**
	F	389	3.67	0.79		
Career Expectations	M	238	3.41	0.79	-4.294	0.000**
	F	389	3.69	0.78		
Overall	M	238	3.43	0.73	-3.826	0.000**
	F	389	3.66	0.73		

4.3.1.2 Grade Level and Career Identity of Preschool Students

A one-way ANOVA revealed that career identity was ranked from highest to lowest among the different grade levels: freshman ($M=3.65$), junior ($M=3.57$), sophomore ($M=3.53$), and senior ($M=3.49$). However, there is no significant difference ($P=0.348>0.05$). In terms of mean values, freshman students had the highest mean values for career identity on all dimensions, followed by juniors, sophomores, and finally, seniors. This suggests that there may be a decline in students' occupational identity as they move up the grade levels, but this decline is not significant. Reflecting students' different understanding and experience of career identity at different grade levels.

4.3.1.3 Place of domicile and occupational identity of preschool students

One-way ANOVA shows that place of domicile has a significant effect on occupational identity of preschool students ($P=0.049<0.05$). As can be seen from the table, the mean value of "rural" (3.61) is higher than the mean value of "urban" (3.49). However, in terms of the dimensions, there is no significant difference in the dimensions of "occupational emotion", "occupational values" and "occupational expectations", but there is no significant difference in the dimensions of "occupational cognition" and "occupational expectations". However, there is no significant difference in the dimensions of "career emotion", "career values" and "career expectations", but there is a significant difference in the dimensions of "career awareness" and "career will", and the mean value of the rural students is higher.

Table 6. Occupational Identity by Grade Level Differences

Dimension	Grade	Number of people	Mean	Standard Deviation	F-value	Significance
Career Cognition	first-year university student	161	3.66	0.90	1.637	0.180
	second-year university student	234	3.52	0.70		
	third-year university student	174	3.52	0.76		
	fourth-year university student	58	3.43	0.95		
Career Emotions	first-year university student	161	3.63	0.93	1.024	0.381
	second-year university student	234	3.51	0.73		
	third-year university student	174	3.62	0.76		
	fourth-year university student	58	3.51	0.89		
Career Will	first-year university student	161	3.61	0.91	0.666	0.573
	second-year university student	234	3.51	0.74		
	third-year university student	174	3.56	0.77		
	fourth-year university student	58	3.48	0.87		
Career Values	first-year university student	161	3.65	0.89	0.757	0.518
	second-year university student	234	3.58	0.72		
	third-year university student	174	3.58	0.79		
	fourth-year university student	58	3.48	0.91		
Career Expectations	first-year university student	161	3.69	0.87	1.510	0.211
	second-year university student	234	3.52	0.74		
	third-year university student	174	3.58	0.77		
	fourth-year university student	58	3.53	0.82		
Overall	first-year university student	161	3.65	0.85	1.100	0.348
	second-year university student	234	3.53	0.68		
	third-year university student	174	3.57	0.69		
	fourth-year university student	58	3.49	0.80		

Table 7. Occupational identification by differences in place of domicile

Dimension	Household Registration Location	Number of people	Mean	Standard Deviation	F-Value	Significance
Career Cognition	rural	406	3.61	0.84	5.922	0.015
	cities	221	3.45	0.71		
Career Emotions	rural	406	3.60	0.86	1.181	0.278
	cities	221	3.53	0.70		
Career Will	rural	406	3.60	0.85	4.610	0.032
	cities	221	3.46	0.70		
Career Values	rural	406	3.63	0.84	3.128	0.077
	cities	221	3.51	0.73		
Career Expectations	rural	406	3.62	0.82	3.345	0.068
	cities	221	3.50	0.73		
Overall	rural	406	3.61	0.79	3.897	0.049
	cities	221	3.49	0.64		

4.3.1.4 Ethnicity and Pre-school Education Students' Occupational Identity

The independent samples t-test found that there is a difference in occupational identity between Han Chinese and ethnic minority pre-school education students ($P=0.000<0.05$), and that Han Chinese students' occupational identity is higher than that of ethnic minorities, both overall and in terms of dimensions, which may be related to the fact that Han Chinese students' occupational choices prefer challenging and innovative. This may be related to the fact that Han Chinese students prefer challenging and innovative careers in their career choices.

Table 8. Ethnic Differences in Occupational Identity

Analysis Item	Item	Sample Size	Mean	Standard Deviation	T-Value	Significance
Career Cognition	Han nationality	430	3.66	0.83	5.862	0.000**
	national minority	197	3.30	0.67		
	total	627	3.55	0.80		
Career Emotions	Han nationality	430	3.69	0.85	5.840	0.000**
	national minority	197	3.33	0.65		
	total	627	3.57	0.81		
Career Will	Han nationality	430	3.66	0.84	5.835	0.000**
	national minority	197	3.30	0.66		
	total	627	3.55	0.81		
Career Values	Han nationality	430	3.71	0.82	6.319	0.000**
	national minority	197	3.32	0.68		
	total	627	3.59	0.80		
Career Expectations	Han nationality	430	3.72	0.81	7.238	0.000**
	national minority	197	3.28	0.65		
	total	627	3.58	0.79		
Overall	Han nationality	430	3.69	0.77	6.861	0.000**
	national minority	197	3.31	0.59		
	total	627	3.57	0.74		

4.3.2. Comparative analysis of the dimensions of career identity of preschool education undergraduates in different grades

In order to have a deeper understanding of the dimensions of career identity of preschool education majors, this study conducted a comparative analysis of the dimensions of career identity of students in different grades.

4.3.2.1 Dimension of "Career Awareness"

One-way ANOVA found that there is no significant difference in the dimension of career awareness among preschool students of different grades ($P=0.18>0.05$). The rank order of the mean high and low of the students in each grade on the dimension of career perception was: freshman ($M=3.66$), sophomore ($M=3.52$), junior ($M=3.52$), and senior ($M=3.43$). As can be seen from the table, freshman students have higher career perceptions, but this difference is not significant.

Table 9. Significant Differences in Career Cognition Across Grade Levels

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
Career Cognition	first-year university student	161	3.66	0.90	1.637	0.180
	second-year university student	234	3.52	0.70		
	third-year university student	174	3.52	0.76		
	fourth-year university student	58	3.43	0.95		
	total	627	3.55	0.80		

In terms of each item of this dimension, freshman undergraduates had the highest level of agreement with items T1 and T5, whose mean values were: 3.78 and 3.73, respectively, while senior undergraduates had the lowest scores on items a3 and a4, with mean values of: 3.29 and 3.28, respectively.

4.3.2.2 "Professional Emotions" Dimension

One-way ANOVA found that there was no significant difference in the professional emotions dimension among preschool students of different grades ($P=0.381>0.05$). The rank order of the mean high and low of the students in each grade on the dimension of professional affectivity was: freshman ($M=3.63$), junior ($M=3.62$), sophomore ($M=3.51$), and senior ($M=3.51$). From the table, it can be seen that freshmen and juniors have higher career sentiments.

Table 10. Grade Level Specific Analysis of Occupational Identity

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
T1, I think being a kindergarten teacher will make me respectable .	first-year university student	161	3.78	0.95	0.444	0.722
	second-year university student	234	3.71	0.79		
	third-year university student	174	3.75	0.90		
	fourth-year university student	58	3.64	1.17		
	total	627	3.73	0.90		
T2. Being a kindergarten teacher is my interest in life.	first-year university student	161	3.59	1.08	0.976	0.403
	second-year university student	234	3.43	0.90		
	third-year university student	174	3.44	0.97		
	fourth-year university student	58	3.50	1.14		
	total	627	3.48	0.99		
T3. I think that the working environment and working conditions of kindergarten teachers are very good .	first-year university student	161	3.54	1.15	1.302	0.273
	second-year university student	234	3.47	1.02		
	third-year university student	174	3.34	1.08		
	fourth-year university student	58	3.29	1.28		
	total	627	3.44	1.10		
T4. I believe that early childhood teachers have a secure career.	first-year university student	161	3.66	1.07	2.445	0.063
	second-year university student	234	3.45	0.96		
	third-year university student	174	3.50	1.02		
	fourth-year university student	58	3.28	1.20		
	total	627	3.50	1.03		
T5: Being a kindergarten teacher keeps me a child.	first-year university student	161	3.73	0.99	1.645	0.178
	second-year university student	234	3.55	0.91		
	third-year university student	174	3.57	0.96		
	fourth-year university student	58	3.47	1.17		
	total	627	3.59	0.97		

Table 11. Career Emotions Sort Analysis

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
Career Emotions	first-year university student	161	3.63	0.93	1.024	0.381
	second-year university student	234	3.51	0.73		
	third-year university student	174	3.62	0.76		
	fourth-year university student	58	3.51	0.89		
	total	627	3.57	0.81		

In terms of each item of this dimension, freshman undergraduates had the highest level of agreement with items T6 and T10, whose means were: 3.76 and 3.68, respectively, while senior undergraduates had the lowest scores on items T6 and T11, which both had a mean of 3.41. Thus, it can be seen that senior students are less enthusiastic about the profession of kindergarten teaching.

Table 12. Career Emotions Outcome Analysis

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
T6. My career as a kindergarten teacher stems from my love for the profession.	first-year university student	161	3.76	1.04	2.352	0.071
	second-year university student	234	3.58	0.94		
	third-year university student	174	3.70	0.88		
	fourth-year university student	58	3.41	1.14		
	total	627	3.64	0.97		
T7. Being a kindergarten teacher can make my life full of passion and vitality.	first-year university student	161	3.52	1.10	0.288	0.834
	second-year university student	234	3.48	0.91		
	third-year university student	174	3.57	0.98		
	fourth-year university student	58	3.52	1.01		
	total	627	3.52	0.99		
T8. I think early childhood teachers are valued .	first-year university student	161	3.61	1.13	0.843	0.471
	second-year university student	234	3.45	1.03		
	third-year university student	174	3.56	1.05		
	fourth-year university student	58	3.60	1.04		
	total	627	3.54	1.06		
T9. I am pleased when I hear words of praise for the early childhood teaching profession .	first-year university student	161	3.63	1.11	0.251	0.861
	second-year university student	234	3.54	0.94		
	third-year university student	174	3.60	0.97		
	fourth-year university student	58	3.59	1.06		
	total	627	3.59	1.01		
T10. I can get a sense of fulfillment as a kindergarten teacher.	first-year university student	161	3.68	1.06	0.887	0.447
	second-year university student	234	3.53	0.90		
	third-year university student	174	3.61	0.95		
	fourth-year university student	58	3.55	1.03		
	total	627	3.59	0.97		
T11. Being a kindergarten teacher gives me a sense of well-being.	first-year university student	161	3.61	1.09	1.563	0.197
	second-year university student	234	3.50	0.96		
	third-year university student	174	3.68	0.93		
	fourth-year university student	58	3.41	1.23		
	total	627	3.57	1.02		

4.3.2.3 “Professional Will” Dimension

One-way ANOVA found that there was no significant difference in the professional will dimension among preschool students of different grades ($P=0.573>0.05$). The rank order of the mean high and low of the students in each grade level on the dimension of professional will was as follows: freshman ($M=3.61$), junior ($M=3.56$), sophomore ($M=3.51$), and senior ($M=3.48$). As can be seen from the table, in comparison, freshman year has a higher level of career will identity.

Table 13. Career Will dimensional analysis

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
Career Will	first-year university student	161	3.61	0.91	0.666	0.573
	second-year university student	234	3.51	0.74		
	third-year university student	174	3.56	0.77		
	fourth-year university student	58	3.48	0.87		
	total	627	3.55	0.81		

In terms of each item of this dimension, freshman undergraduates had the highest level of agreement with items T12 and T16, with their mean values: 3.65 and 3.62, respectively, while senior undergraduates had the lowest scores on items T12 and T13, with their mean values: 3.45 and 3.41, respectively. This shows that senior undergraduates have a lower level of agreement with their careers as early childhood teachers.

4.3.2.4 “Career Values” Dimension

One-way ANOVA revealed that there was no significant difference in the career values dimension among preschool students of different grades ($P=0.518>0.05$). The rank order of the mean high and low of the students in each grade on the dimension of career values is: freshman ($M=3.65$), junior ($M=3.58$), sophomore ($M=3.58$), and senior ($M=3.48$). As can be seen from the table, in comparison, freshman year has higher career values.

Table 14. Detailed analysis of vocational will

Analysis Item	Item	Sample Size	Mean	Standard Deviation
T12. Even if the conditions in the future are difficult, I will still work in the field of pre-school education.	first-year university student	161	3.65	1.03
	second-year university student	234	3.62	0.92
	third-year university student	174	3.55	0.96
	fourth-year university student	58	3.45	1.10
	total	627	3.59	0.98
T13. I will be an early childhood teacher for the rest of my life.	first-year university student	161	3.59	1.09
	second-year university student	234	3.47	0.95
	third-year university student	174	3.56	0.98
	fourth-year university student	58	3.41	1.06
	total	627	3.52	1.00
T14. In order to be a qualified kindergarten teacher in the future, I will try my best to learn professional theoretical knowledge.	first-year university student	161	3.58	1.10
	second-year university student	234	3.50	0.95
	third-year university student	174	3.60	0.96
	fourth-year university student	58	3.55	1.13
	total	627	3.55	1.01
T15: Even if my parents don't approve, I'll still choose to major in preschool education .	first-year university student	161	3.63	1.06
	second-year university student	234	3.50	0.93
	third-year university student	174	3.54	0.99
	fourth-year university student	58	3.52	1.14
	total	627	3.55	1.00
T16: Even if I go to work in a rural area in the future, I will still stick to my job as a kindergarten teacher.	first-year university student	161	3.62	1.01
	second-year university student	234	3.47	0.95
	third-year university student	174	3.54	1.00
	fourth-year university student	58	3.45	1.11
	total	627	3.53	0.99

Table 15. Analysis of career values

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
Career Values	first-year university student	161	3.65	0.89	0.757	0.518
	second-year university student	234	3.58	0.72		
	third-year university student	174	3.58	0.79		
	fourth-year university student	58	3.48	0.91		
	total	627	3.59	0.80		

In terms of each item of this dimension, freshman undergraduates had the highest level of agreement with items T17 and T21, whose means were: 3.71 and 3.66, respectively, while senior undergraduates had the lowest scores on items T19 and T21, whose means were: 3.38 and 3.43, respectively.

Table 16. Detailed Analysis of Career Values

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
T17. Being a kindergarten teacher can realize the value of my life.	first-year university student	161	3.71	1.03	0.490	0.689
	second-year university student	234	3.62	0.88		
	third-year university student	174	3.59	0.94		
	fourth-year university student	58	3.60	1.02		
	total	627	3.63	0.95		
T18. Being a kindergarten teacher can realize my dream.	first-year university student	161	3.65	1.09	0.815	0.486
	second-year university student	234	3.52	0.91		
	third-year university student	174	3.53	0.93		
	fourth-year university student	58	3.47	1.16		
	total	627	3.55	0.99		
T19. Being a kindergarten teacher can be respected .	first-year university student	161	3.61	1.11	0.981	0.401
	second-year university student	234	3.52	0.92		
	third-year university student	174	3.61	1.04		
	fourth-year university student	58	3.38	1.20		
	total	627	3.56	1.03		
T20. A qualified kindergarten teacher should have good dancing and drawing skills.	first-year university student	161	3.64	1.00	0.357	0.784
	second-year university student	234	3.59	0.89		
	third-year university student	174	3.56	1.05		
	fourth-year university student	58	3.50	1.16		
	total	627	3.59	0.99		
T21. The preschool education program is important for the development of society.	first-year university student	161	3.66	0.98	0.863	0.460
	second-year university student	234	3.64	0.93		
	third-year university student	174	3.59	0.99		
	fourth-year university student	58	3.43	1.22		
	total	627	3.61	0.98		

4.3.2.5 “Career Expectation” Dimension

One-way ANOVA found that there was no significant difference in the career expectation dimension among preschool students of different grades ($P=0.211>0.05$). The rank order of the mean high and low values of the students in each grade on the dimension of career values was as follows: freshman ($M=3.69$), junior ($M=3.58$), senior ($M=3.53$), and sophomore ($M=3.52$). From the table, it can be seen that in comparison, career expectations are higher in freshman year .

Table 17. Analysis of career expectations

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
Career Expectations	first-year university student	161	3.69	0.87	1.510	0.211
	second-year university student	234	3.52	0.74		
	third-year university student	174	3.58	0.77		
	fourth-year university student	58	3.53	0.82		
	total	627	3.58	0.79		

In terms of each item of this dimension, freshman undergraduates have the highest level of agreement with items T25 and T22, whose mean values are: 3.74 and 3.72, respectively, while senior undergraduates have the lowest scores on item T26, with a mean value of: 3.38. This shows that the career identity of senior students is affected by the influence of family ...

4.3.3. The same correlation analysis of different dimensions of professional identity of preschool undergraduates

According to statistical knowledge, if the absolute value of the correlation coefficient of two variables is less than or equal to 0.39, it is considered as low correlation, between 0.4 and 0.69 is considered as medium correlation, and greater than or equal to 0.7 is considered as high correlation, and the correlation coefficients of the five dimensions are above 0.7, which is highly correlated, and the “professional emotion” has the highest correlation, which means that emotion is very important in preschool education. The highest correlation was found for “professional emotions”, which means that emotions are very important in preschool education. The correlation coefficient between occupational cognition and occupational emotion is 0.826, which is significant at the level of 0.01, indicating that there is a significant positive correlation between occupational cognition and occupational emotion. The correlation coefficient value between occupational awareness and occupational will is 0.776 and shows significance at 0.01 level, which indicates that there is a significant positive relationship between occupational awareness and occupational will. The correlation coefficient value between career awareness and career values is 0.758 and it is significant at 0.01 level, which means that there is a significant positive relationship between career awareness and career values. The correlation coefficient between career awareness and career aspirations is 0.769 and it is significant at 0.01 level, which means that there is a significant positive relationship between career awareness and career aspirations.

Table 18. Detailed analysis of career expectations

Analysis Item	Item	Sample Size	Mean	Standard Deviation	F	p
T22. Early childhood teachers' salaries will increase ...	first-year university student	161	3.72	0.97	0.986	0.399
	second-year university student	234	3.59	0.86		
	third-year university student	174	3.59	0.91		
	fourth-year university student	58	3.53	0.94		
	total	627	3.62	0.91		
T23. I will participate in the training of early childhood teachers to improve my ability willingness.	first-year university student	161	3.65	1.03	1.492	0.216
	second-year university student	234	3.47	0.95		
	third-year university student	174	3.45	0.95		
	fourth-year university student	58	3.47	1.06		
	total	627	3.51	0.98		
T24. The profession of early childhood teacher has good prospects for development.	first-year university student	161	3.70	1.07	1.348	0.258
	second-year university student	234	3.50	0.95		
	third-year university student	174	3.63	1.02		
	fourth-year university student	58	3.66	1.10		
	total	627	3.60	1.02		
T25. I am very satisfied with the working environment of early childhood teachers.	first-year university student	161	3.74	1.01	1.384	0.246
	second-year university student	234	3.55	0.89		
	third-year university student	174	3.67	0.95		
	fourth-year university student	58	3.64	0.99		
	total	627	3.64	0.95		
T26. The job of a kindergarten teacher will give me the support and appreciation of my family and friends.	first-year university student	161	3.63	1.02	1.331	0.263
	second-year university student	234	3.48	0.96		
	third-year university student	174	3.59	0.94		
	fourth-year university student	58	3.38	1.07		
	total	627	3.54	0.98		

Table 19. Comparative analysis of different dimensions

	Career Cognition	Career Emotions	Career Will	Career Values	Career Expectations
Career Cognition	1				
Career Emotions	0.826**	1			
Career Will	0.776**	0.831**	1		
Career Values	0.758**	0.826**	0.853**	1	
Career Expectations	0.769**	0.804**	0.837**	0.856**	1

5. Conclusion

According to the analysis of the results of the above data and the application of the interview method, corresponding to the differences in the students' demographic variables caused by the differences in the sense of professional identity, the findings of this survey scientifically and effectively show that the factors affecting the sense of professional identity of pre-school education students.

5.1. Overall situation is relatively optimistic, but career awareness is weak

The task of preschool education is rich and varied, facing the education object is 3-6 years old children, the education task is not only to adapt to the education of young children, but also to the parents of good family education, preschool education is the beginning of basic education, with the development of the times, preschool teachers are not only the simple care of young children as well as the care of, but also increase the scientific concept of education and education, but also the development of the education concept. It has also increased the scientific concept of education and children's view, "Kindergarten Education Guidance Program for Trial Implementation" clearly puts forward: pre-school education is an important part of basic education, is the foundation stage of China's school education and lifelong education, urban and rural kindergartens of all types should be based on the actual situation, according to the local conditions of implementation of the quality of education, for the children's lifelong development of the foundation. According to the results of the study, some regions and students do not have a thorough understanding of the tasks of preschool education, and there is still a misunderstanding that the position of kindergarten teacher is a "caregiver role".

5.2. Different demographic variables: Han Chinese, female students, and students from rural areas have a higher sense of professional identity.

In the preschool education program, female students have a higher level of professional cognitive development than male students, and female students are more willing to engage in the preschool education program; ethnic minority students have a lower sense of professional identity than Han Chinese students, and Han Chinese students are more willing to engage in the preschool education program, and students from rural areas are more willing to engage in the early childhood teaching profession than those from urban areas, and students from rural areas are more willing to engage in the early childhood teaching profession. Students from rural areas are more willing to engage in pre-school education than students from urban areas, which is related to the students' family education factors, and the students' autonomy will encourage students to insist on learning a certain specialty for a longer period of time, and the support of the family will make the students' learning efficiency and motivation increase.

5.3. Regional differences in students' professional emotions and professional values

According to the study, students' choice of career as an early childhood teacher is mostly influenced by their hometowns and their parents' educational concepts, students in townships understand the concept of pre-school education more superficially than those in cities, and the pressure of competition in kindergartens in townships is lighter than those in cities, while students in cities have a certain degree of resistance towards the career of early childhood teacher, students of urban household usually choose to study in a particular specialty, which is more sustainable. Students with urban household registration will generally choose to get other levels of teaching license, urban students face career choices will choose a relatively high social status of the profession, it is generally believed that the social status of early childhood teachers is low, while the rural areas or ethnic minorities of the profession will be more emotional.

5.4 Significant differences between the dimensions of students' professional identity

Students' vocational cognition and vocational skills are relatively solid, while their vocational emotion, vocational will, and vocational values of the preschool education profession are relatively weak, which has a greater impact on students' choice of the early childhood teaching profession after graduation, and the students who do not have strong emotion and recognition of the preschool education profession will choose other professions after graduation. Students do not have strong emotion and recognition for the preschool education major, and will choose other industries after graduation, and they are rejecting and resisting to the preschool education major corresponding to the profession of early childhood teacher, which causes uncertainties and influences on the development of preschool education in the later stage.

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