### Research on the Current Status of Vocational Identity among Elementary School All-Subject Teachers in Rural Areas

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Abstract. Research is conducted by referring to Wang Xinqiang et al.'s Teacher Vocational Identity Scale for Normal University Students. A self-designed questionnaire is used to investigate the vocational identity of 295 college students at Chongqing Second Normal University towards elementary school all-subject teachers in rural areas. The results show that local normal university students have a higher degree of vocational identity towards elementary school all-subject teachers. Among the six factors investigated, gender, academic background (science or humanities), and having a teacher's family background showed no significant differences. However, there were significant differences between normal and non-normal university students, as well as between students from urban and rural areas. The vocational identity towards elementary school all-subject teachers declined in the following order of grades: junior year, freshman year, senior year, and sophomore year. Enhancing the vocational identity of elementary school all-subject teachers in rural areas requires the organic combination of social, school, and individual dimensions. Pre-service teacher education should focus on abilities and practical orientation, establish a guarantee system, and strengthen emotional education related to rural areas.

Keywords: rural primary school, all-subject teacher, teacher vocational identity

### **1** Introduction

In 2012, the Ministry of Education of China promulgated the "Opinions on Promoting the Construction of Rural Compulsory Education Teacher Teams," emphasizing the need to cultivate high-quality teachers who can "go down to the rural areas, stay there, and perform well" in rural schools. Special admission methods, such as targeted commissioned training, were adopted to expand teacher education in rural areas. In 2015, the State Council issued the "Rural Teacher Support Program (2015-2020)," with the aim of fundamentally addressing the issues of rural primary school teacher construction and promoting balanced development of urban and rural education, gradually alleviating structural problems in teachers in remote rural schools. As one of the pilot provinces and cities for training rural all-subject primary school teachers in China, Chongqing started admitting 700 undergraduate-level free-directed rural all-subject teacher education students through the regular college entrance examination in the autumn of 2013. The vocational identity of college students towards teaching is an

inexhaustible driving force for their professional development and also a key influential factor in ensuring the quality of pre-service training for rural all-subject teachers.

The vocational identity of rural all-subject primary school teachers refers to the perception and experience of university students towards the potential role of being a rural all-subject primary school teacher. Its dimensions include career willingness, expectations, career determination, career values, and career efficacy. Currently, domestic scholars mainly focus on theoretical and practical discussions regarding the necessity, practical significance, training models, professional qualities, and curriculum design of rural all-subject primary school teachers<sup>[1]</sup>. Research on teacher vocational identity mainly focuses on normal students and free-normal students' identification with the teaching profession, while little attention has been given to the vocational identity of rural all-subject primary school teachers.

As one of the local universities that initiated the undergraduate-level training for rural allsubject primary school teachers in the city in 2013, Chongqing Normal University Second College examines the current status of vocational identity among college students towards the rural all-subject teaching profession. Are there any differences in vocational identity based on gender, grade level, hometown, family background, and whether they are normal students or non-normal students? How satisfied are they with the current training model and curriculum system in terms of professional development as rural all-subject primary school teachers? Investigating and exploring these questions will contribute to improving the quality of training for rural all-subject primary school teachers and provide decision-makers with valuable reference in formulating policies to ensure the recruitment and development of such teachers in rural areas. This research will help realize the vision of achieving a well-balanced allocation of teachers in rural areas, in alignment with the national policy's top-level design.

### 2 Research Methodology

### 2.1 Survey subjects and instruments

The survey subjects of this study are rural generalist teacher education students and other professional teacher education students as well as non-teachers in local normal colleges and universities in Chongqing. A total of 320 questionnaires were distributed, 312 were collected, and 295 valid questionnaires were obtained, resulting in a response rate of 97.5% and an effective questionnaire rate of 92.2%. The distribution of the survey subjects is as follows: 49 male students, accounting for 16.7%, and 246 female students, accounting for 83.4%; the grade distribution is as follows: 102 freshmen, 68 sophomores, 65 juniors, and 60 seniors; there are 236 teacher education students and 59 non-teacher education students; there are 203 students from humanities background and 92 students from science background; 173 students come from rural areas, and 122 students come from urban areas; among the family members, 161 have a teaching profession, while 134 do not.

The research instrument in this study was adapted from the research findings and others on teacher identity among teacher education students<sup>[2]</sup>. The "Survey on Rural Primary School Generalist Teacher Identity" was designed based on appropriate modifications to the scale. A pilot test was conducted with 30 students, and the data were analyzed using SPSS 17.0. Based on the analysis results, appropriate modifications were made to the questionnaire items. The

internal consistency of the revised questionnaire was examined and confirmed, with a Cronbach's alpha coefficient of 0.875, indicating good reliability.

The formal questionnaire consists of six questions regarding students' basic information, twenty questions on rural primary school generalist teacher identity dimensions including "career aspirations and expectations, career volition, career values, and career self-efficacy", three questions on students' satisfaction with teacher education in universities, and one openended question. A 5-point Likert scale was used, and for some items, reverse scoring was applied before conversion. Higher scores indicate a higher level of teacher identity.

#### 2.2 Survey implementation and data analysis

The sampling strategy of this survey adopts the method of random cluster sampling. A total sample of 280 students was randomly selected from one grade with two classes each in the elementary school general subject pedagogy program, including students from the first to fourth grades. Another sample of 40 students was selected from non-pedagogy majors through the school's general education elective course "Teacher Professional Skills Training". The survey was conducted online through the use of a QR code provided by Wenjuanxing for participants to fill out the questionnaire. The questionnaire consists of 20 items on four dimensions: "career aspirations and expectations, career volition, career values, and career self-efficacy". The Likert scale scoring method was used, with the scale consisting of a set of statements, and each statement having five response options: "strongly agree, agree, uncertain, disagree, strongly disagree". These options were respectively assigned scores of 5, 4, 3, 2, and 1. The total score for each respondent's attitude is the sum of the scores obtained from their responses to each item, which can indicate the strength of their attitudes or their different states on this scale. The data collected from the survey were analyzed using SPSS 17.0 statistical software, including calculation of the overall mean and standard deviation. T-tests were conducted to analyze the significance of differences in variable factors at the 0.05 level of significance.

### **3** Survey Results

#### 3.1 Overall level of occupational identity among rural primary school generalist teachers

Statistical results (see Table 1) show that students at local normal universities have a relatively high overall level of occupational identity towards rural primary school generalist teachers, with a score of 3.442. This finding is consistent with the conclusions of other scholars<sup>[3]</sup> regarding the occupational identity of students at local normal universities. Among the four dimensions of occupational identity, the highest average score is in career willingness and expectations, followed by career efficacy. The lowest score is in career volition and occupational values. The standard deviation for the four dimensions is 0.876, indicating a significant deviation of scores from the mean among the participants.

## **3.2** Gender differences in occupational identity of rural primary school generalist teachers

Pairwise mean comparison t-tests were conducted on gender differences in occupational identity among rural primary school generalist teachers. The results (Table 2) indicated that

the gender differences in occupational identity of rural primary school generalist teachers were not statistically significant (p=0.391>0.05). However, significant gender differences were found in three out of the four dimensions of occupational identity, namely career willingness and expectations, career volition, and gender. Females scored slightly higher than males in all four dimensions.

	Career intention and expectations	Professional will	Professional value	Occupational efficacy	Professional identity
Ν	295	295	295	295	295
М	4.183	2.544	3.489	3.540	3.442
SD	0.876	0.989	1.066	1.096	0.676

Table 1. Overall level of occupational identity among rural primary school generalist teachers.

Table 2. Gender differences in occupational identity of rural primary school generalist teachers.

	Career intention and expectations		Professional will		Professional value			pational icacy	Professional identity	
	Male Female		Male	Male Female Male Female		Male Female		Male	Female	
Ν	49	246	49	246	49	246	49	246	49	246
М	4.117	4.205	2.418	2.570	3.451	3.470	3.731	3.80	3.392	3.511
SD	0.983	0.970	1.113	1.042	0.681	1.070	1.107	1.035	0.982	0.670
P*	0.000		0.024		0.282		0.	502	0.391	

Note: \* indicates significant differences at the 0.05 level. The p-values in the following tables represent significant differences at the 0.05 level.

### **3.3** Differences in occupational identity between rural primary school generalist teachers who are normal education students and those who are not normal education students

A paired t-test was conducted to examine the differences in occupational identity between rural primary school generalist teachers who are normal education students and those who are normal education students. The results (Table 3) indicate that there is a significant difference in occupational identity between normal education students and non-normal education students, with normal education students having a higher mean score by 0.02. Among the four dimensions, significant differences were observed in career intention and expectation, as well as career efficacy. However, there was no significant difference in career determination and career values. Furthermore, in the dimension of career efficacy, the mean score for normal education students was higher than that of non-normal education students by 0.18.

### **3.4 Differences in occupational identity between rural primary school generalist teachers from humanities and science backgrounds**

A paired-sample t-test was conducted to examine the differences in occupational identity between normal education students and non-normal education students among rural primary school generalist teachers. The results (Table 4) indicate that there is no significant difference in occupational identity between students from humanities and science backgrounds. However, significant differences were found in the dimensions of career intention and determination within the construct of occupational identity. Specifically, students from humanities backgrounds scored significantly higher than students from science backgrounds, with a mean difference of 0.35.

	Career is and expe		Professional will		Professional value		Occup effic		Professional identity		
	Teacher Education	Non normal education	Teacher Education	Non normal education	Teacher Education	Non normal education	Teacher Education	Non normal education	Teacher Education	Non normal education	
Ν	236	59	236	59	236	59	236	59	236	59	
М	4.181	4.200	2.560	2.460	3.450	3.700	3.570	3.390	3.450	3.430	
SD	0.964	0.977	1.068	1.084	1.065	1.084	1.014	1.162	1.163	1.228	
Р*	0.000		0.069		0.593		0.0	001	0.000		

 Table 3. Differences in occupational identity between rural primary school generalist teachers who are normal education students and those who are not normal education students.

 
 Table 4. Differences in occupational identity between rural primary school generalist teachers from humanities and science backgrounds.

		intention pectations	Professional will		Professional value			pational icacy	Professional identity		
	Libera l Arts	Scicece	Libera 1 Arts	Scicece	Libera 1 Arts	Scicece	Liber al Arts	Scicece	Liber al Arts	Scicece	
Ν	203	92	203	92	203	92	203	92	203	92	
М	4.570	4.220	2.420	2.520	3.580	3.480	3.720	3.670	3.510	3.500	
SD	0.792	1.013	1.045	1.104	1.077	1.159	1.007	1.030	1.030	1.225	
P*	0.000		0.256		0.277		0.531		0.747		

### 3.5 The rural-urban differences in occupational identity among rural primary school generalist teachers vary depending on the students' place of origin

A paired-sample t-test was conducted to examine the differences in occupational identity between normal education students and non-normal education students among rural primary school generalist teachers. The results (Table 4) indicate that there is no significant difference in occupational identity between students from humanities and science backgrounds. However, significant differences were found in the dimensions of career intention and determination within the construct of occupational identity. Specifically, students from humanities backgrounds scored significantly higher than students from science backgrounds, with a mean difference of 0.35.

### **3.6** Whether there is a difference in occupational identity among rural primary school generalist teachers based on their family background is unclear

A paired-sample t-test was conducted to examine whether there is a difference in occupational identity among rural primary school generalist teachers based on their family background. The results, as shown in Table 5 and 6, indicate that there is no significant difference in occupational identity between teachers with family members in the teaching profession and those without in relation to general occupational identity. However, in terms of career aspiration and expectation dimensions, a significant difference was found, with students from teaching family backgrounds scoring 0.19 higher on average. In the dimensions of career volition and career values, students without teaching family backgrounds showed slightly higher occupational identity compared to those with teaching family backgrounds. Students from teaching family backgrounds scored slightly higher than those without on the dimension of career efficacy.

 Table 5. The rural-urban differences in occupational identity among rural primary school generalist teachers vary depending on the students' place of origin.

		Career intention and expectations		Professional will		Professional value		oational cacy	Professional identity		
	Rural areas	City	ity Rural City Rural City areas		Rural areas	City	Rural areas	City			
Ν	173	122	173	122	173	122	173	122	173	122	
М	4.380	4.200	2.530	2.490	3.550	3.460	3.550	3.480	3.550	3.420	
SD	0.832	1.037	1.052	1.089	1.058	1.123	1.001	1.080	1.157	1.224	
Р*	0.002		0.545		0.151		0.2	203	0.000		

 Table 6. Whether there is a difference in occupational identity among rural primary school generalist teachers based on their family background is unclear.

	Career intention and expectations		Professional will		Professional value		1	oational cacy	Professional identity		
	Teacher	Not Teacher	Teacher	Not Teacher	Teacher	Not Teacher	Teacher	Not Teacher	Teacher	Not Teacher	
Ν	161	134	161	134	161	134	161	134	161	134	
М	4.381	4.190	2.471	2.471 2.560		3.520	3.550	3.540	3.430	3.460	
SD	0.897	0.917	1.063	1.049	1.109	1.019	1.060	1.021	1.221	1.430	
P*	.0	.000		0.145		0.829		0.865		0.431	
P*	0.002		0.5	545	0.151		0.2	203	0.000		

### **3.7** There are grade differences in occupational identity among rural primary school generalist teachers

According to the comparison of mean scores for occupational identity among rural primary school generalist teachers based on their hometown (as shown in Table 7), the rankings from highest to lowest in occupational identity scores are as follows: third-year students, first-year

students, fourth-year students, and second-year students. In terms of the four dimensions of occupational identity among rural primary school generalist teachers (as shown in Table 8), the rankings for mean scores in career aspiration and expectation, career values, and career efficacy are consistent with the overall occupational identity rankings, with third-year students ranking highest, followed by first-year students, second-year students, and fourth-year students.

 Table 7. Overall grade differences in professional identity of general practitioners in rural primary schools.

Overall level of professional identity											
Ν	Freshman	Sophomore	Junior	Senior							
М	3.541	3.142	3.710	3.350							
SD	1.198	1.170	0.844	1.043							

Table 8. Grade differences in professional identity of general practitioners in rural primary schools.

	Career intention and expectations			and	Professional will			Professional value				Occupational efficacy				
G	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Ν	102	68	65	60	102	68	65	60	102	68	65	60	102	68	65	60
М	4.3	3.8	4.2	4.1	2.4	2.1	2.7	2.4	3.6	2.1	3.5	3.1	3.6	3.1	3.7	3.3
	01	50	10	01	70	50	40	40	61	01	30	92	70	31	10	50
S	0.1	1.3	0.8	1.0	1.0	0.8	0.9	1.1	1.0	0.4	0.9	1.1	1.0	1.0	0.8	1.0
D	91	09	89	82	11	13	72	07	50	47	51	81	74	08	44	43

### **4** Conclusion

#### 4.1 Investigation conclusion

Overall, college students have a higher level of occupational identity towards rural primary school generalist teachers, which is consistent with the findings of other domestic scholars. There is no significant gender difference in occupational identity among rural primary school generalist teachers, which is different from the findings of other researchers. However, significant gender differences exist in the dimensions of career aspiration and expectation, career commitment, and career efficacy. There is a significant difference in occupational identity between teacher trainees and non-teacher trainees among rural primary school generalist teachers. Teacher trainees have a higher level of occupational identity towards rural primary school teachers than non-teacher trainees. There is no significant difference in occupational identity based on the source of students' academic background (arts or science) among rural primary school generalist teachers. There is a significant difference in occupational identity based on the source of students' hometown (rural or urban) among rural primary school generalist teachers. Students from rural areas have a higher level of occupational identity towards rural primary school teachers than students from urban areas. There is no significant difference in the occupational identity towards rural primary school generalist teachers among college students based on whether they come from a teacher family

background. However, students without a teacher family background have slightly higher occupational identity compared to students with a teacher family background. The ranking from highest to lowest in occupational identity towards rural primary school generalist teachers is as follows: third-year students, first-year students, fourth-year students, and second-year students.

# 4.2 School: Integration of curriculum highlights practicality, multidimensional and interconnected cultivation, combined with strengthened emotional guidance for rural education

The characteristics of primary school generalist teachers, such as "profound rural emotions, comprehensive professional knowledge, and integrated ability qualities"<sup>[4,5]</sup>, determine the necessity of emphasizing curriculum integration and practicality, as well as the multidimensional collaboration among universities, governments, grassroots schools, and training institutions for their development. By establishing a curriculum and teaching system that emphasizes competency, practicality, and comprehensiveness, continuously reflecting upon and improving the "3+1" open collaborative education model and the curriculum system of generalist practice courses, it can help enhance the occupational will and efficacy dimensions of rural teacher identity among generalist teacher trainees. "Rural education emotions" refer to the thoughts and emotions of primary school generalist teachers who are dedicated to rural education and love rural children. One major influencing factor that leads to a low sense of occupational identity among rural primary school generalist teachers is the lack of rural education emotions. Therefore, in the training process, emphasis should be placed on cultivating the noble ideals of generalist teacher trainees to change the backward educational situation in rural areas, promote the construction of new rural areas in townships, and love rural children, especially left-behind children in rural areas. Through the efforts of rural teachers, knowledge and cultural elements are integrated into the development and construction of new rural areas, promoting a higher level of identification with the occupational value of rural primary school generalist teachers among both teachers and students.

## **4.3 Individual:** Cultivating the autonomy of professional development for rural primary school generalist teacher trainees and their conscious direction towards professional growth

In the survey, it was found that current rural primary school generalist teacher trainees have concerns about their competence in the profession and a lack of self-awareness in terms of professional development. In addition to relying on support from society, universities, and primary and secondary schools environments for pre-service and in-service training of rural primary school generalist teachers, it is crucial to actively exhibit self-awareness and agency in professional development. This includes combining the conditions for professional development with the creation of a self-environment, actively enhancing self-identification with the profession. For example, engaging in group collaborative learning and establishing a learning community with university teachers and rural education experts; conducting field investigations in rural education to strengthen positive perceptions of rural education; and conducting effective career planning to enhance comprehensive training in general subject knowledge and teaching skills, thereby laying a solid foundation for competent teaching in rural primary schools.

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