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Article

Comprehensive Self-evaluation of Teacher's Literacy for Students Directed to Rural Schools

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Abstract: The quality of training rural students in schools is related to the sustainable development of rural education. Thus, it is important to analyze the characteristics of the self-cognition evaluation of teachers' quality in rural schools. Taking Huaiyin Normal University as an example and conducting a questionnaire survey of 144 students, we drew the following important conclusions through descriptive statistical analysis and chi-square test. (1) The self-evaluation of self-development was relatively lower than average. (2) The self-evaluation of students' morality, professional competence, and self-development of students in the middle of Jiangsu was slightly worse than that of northern Jiangsu. (3) The difference between urban and rural areas was not significant. (4) The higher the grade, the greater the self-evaluation, but the self-development literacy was not improved significantly. In response to these problems, the following suggestions were made. Geography-oriented teacher training assessment must be introduced in an elimination system. Also, teachers need to focus on career planning and enhance the sense of educational mission. At the same time, teachers are required to focus on self-reflection and enhance their self-learning ability.

Keywords: students' major in geography, teacher's quality, self-cognition

1. Introduction

Under ongoing technological developments and rapidly evolving knowledge, innovative thinking ability is essential for individuals to succeed in the future (Hsu, Chen, Shiau, Liu, and Chern, 2019). Securing rural teachers is a major issue affecting the development of rural education in China. In June 2015, the State Council issued the "Rural Teaching Support Plan (2015−2020)", in which the most important factor restricting the development of rural education was described as the lack of quality. In February 2016, the Jiangsu Provincial Government held a conference and issued the "Actions for the Implementation of the Rural Teaching Support Plan", and launched the rural teachers training plan. The plan pointed out that priority must be given to improving rural teaching quality ("Opinions from the State Council on Strengthening the Construction of Teaching Staff [EB/OL],"). These policies and regulations have played leading and guiding roles in improving the professional ability of teachers.

Job opportunities and pressure on schools are different between enrolling students and graduate students. There are two important issues considered by the current rural training units and employers. Firstly, can the training of specific students achieve the expected goals under this circumstance? Second, how do schools improve the quality of students to meet the needs of rural education development? However, there is insufficient attention to the results of student training and reflection on the training methods in the current research on the source of students (Li, 2019; Zhao and Jiang, 2018), training methods (Dai and Li, 2018; Ren and Chen, 2020), and the curriculum system (Feng, 2018). Investigating and evaluating the self-recognition of rural teachers' quality provide references for the training department and significance for local education departments in formulating education promotion policies. Therefore, we constructed a self-cognition evaluation index system for rural teacher quality based on the literature review and the questionnaire survey of 144 participants. The self-cognition evaluation is obtained from three aspects to improve teaching quality: space, urbanization, and grade level. (Guo and Zhu, 2013)

2. Literature Review

Teaching quality is an essential content of today's education research. Educators generally believe that teaching quality is formed by the different levels of individual education (Ho, Chen, and Hsu, 2017), life experience, and the accumulation of individual life practices, which are reflected in education and teaching. The collective psychological quality determines the effect of education and has a direct and significant impact on the physical and mental development of students (Ye, 2002). Wang and Zhang (2020) put forward the concept of ultimate teaching quality for the cultivation of ultimate quality in the 21st century. They believed that the teaching quality is based on the professional knowledge and abilities of teachers, which need to be formed in practice and improved in the teaching and education process and cultivates the necessary qualities of students' qualities. The ultimate goal of teaching quality assessment is to enable teachers to obtain the development of personal knowledge, skills, professional knowledge and other characteristics, so as to better carry out teaching activities (Ouyang, Mo, and Xu, 2019).

Educators have different views on the specific composition of teaching quality, but in essence, they are grouped into the four aspects of social background, education objects, educators themselves, and education and teaching process. We classified teaching quality into teaching morals, education professional, discipline, and self-development qualities. These four types of qualities have an individual logical relationship. Teaching morality is one of the bases and is reflected in the teacher's sense of social responsibility and professional requirements. Education professionalism is the basis of being an educator, and teachers must utilize the knowledge of pedagogy and psychology and use wisdom to solve the problems existing in the process of education. Professional quality is the basis of science. Teachers must have a sufficient theoretical foundation of subjects. Self-development quality is the top priority of teaching qualities, which reflects teachers' self-reflection and career planning ability and is also a standard for measuring teachers' development potential.

The specific students are those who are trained in rural education. Their teaching qualities refer to the various professional qualities of teachers in the future education of rural primary and secondary schools. They study systematic curriculum learning in normal colleges through training. Considering the characteristics of the specific students and their geographic distribution, the teaching qualities are regarded to have the following four aspects: (1) Teaching ethics is reflected in two aspects of the specific students and rural students. (2) Teaching professional quality refers to the use of educational concepts, the ability to study geography education, and taking over education in rural schools through systematic educational professional learning. (3) The quality of geography teaching includes basic knowledge, teaching ability, the development of rural geography, the processing of geographic information technology, and the ability of spatial thinking. (4) Self-development quality is reflected in career planning, self-reflection ability, and self-learning ability.

3. Research Methods and Data Sources

We constructed a self-perception evaluation index system for teaching qualities of geography majoring students who are designated to be rural teachers by referring to the literature and conducting interviews with teachers and students. The system consisted of 4 first-level indicators, including teaching ethics (A1), education professional qualities (A2), geography knowledge (A3), and self-development qualities (A4). There were 15 lower-level indicators and 4 first-level indicators in the questionnaire. In the questionnaire survey, Lickert's 5-point method was used: "1" means completely not relevant, "2" means not relevant, "3" means in the middle, "4" means relatively relevant, and "5" means completely relevant. The survey was conducted from February to March 2020 for 144 students of Huaiyin Normal University. The questionnaire contained two parts to ask about basic attributes (household registration, grade, urban and rural) and self-evaluation of the current teaching qualities of the geography-oriented teachers. 144 questionnaires were distributed, and 139 were returned with a recovery rate of 96.3%. Reliability and validity tests were performed, too. The result included the scores of the first-level index and the sum of the scores of the second-level indicators. The differences in self-evaluation of teaching qualities were analyzed by comparing the scores of the indicators.

Table 1. Evaluation index system of teachers' quality self-evaluation of geography majoring students for rural education.

First Level Index	Second Level Index
Teaching ethics	1 Enthusiasm in education
	2 Cognitions of teaching
	3 Caring about students
	4 Language regulations
Educational Professionalism	5 Attention on the curriculum system and teaching characteristics of rural schools
	6 Educational research skills
	7 Practical skills

	8 Creative skills
	9 Geography knowledge and applications
Geographical skills	10 Cognition of rural geography
	11 landing resources investigation
	12 Proficiency in geographic information technology
	13 Future career planning
Qualities of self-development	14 Self-reflection skills
	15 Internet learning skills

4. Results and Discussions

4.1. General Characteristics of Students

139 students participated in the questionnaire survey, and the result is shown in Table 2. In the survey, 33 senior students, 40 junior students, and 66 sophomore students participated. 61.2% of the participants were from the rural area, while 38.8% were from the urban area. There were more participants from northern and central Jiangsu than those from southern Jiangsu. 55.4% of the participants were from northern Jiangsu, 38.1% were from central Jiangsu, and 6.5% were from southern Jiangsu.

Table 2. Descriptive analysis of participants in the questionnaire survey.

Structure type	Structure features	Quantity	Percentage
Grade	Senior	33	23.7%
	Junior	40	28.8%
	Sophomore	66	47.5%
Hometown	Rural	85	61.2%
	City	54	38.8%
Region	Northern Jiangsu	77	55.4%
	Central Jiangsu	53	38.1%
	Southern Jiangsu	9	6.5%

Note: Northern Jiangsu includes five prefecture-level cities, Xuzhou, Huaian, Yancheng, Lianyungang, and Suqian; Central Jiangsu includes three prefecture-level cities, Yangzhou, Taizhou, and Nantong; Southern Jiangsu includes five cities, Nanjing, Zhenjiang, Suzhou, Wuxi, and Changzhou.

4.2. Results and Discussion

As the majority of the participants were from central and northern Jiangsu, the difference in self-cognition was analyzed for the participants from those regions. The average scores of the first-level indicators of the participants from northern and central Jiangsu did not have much difference. The low evaluation for self-development qualities was similar for the participants. However, in the higher self-evaluation of education professional qualities, the participants from central Jiangsu had a higher average score than those from northern Jiangsu. In comparison, the self-evaluation of teacher ethics, geography, and self-development of the participants from central Jiangsu was slightly lower than those from northern Jiangsu. The difference between students from urban and rural areas provided a basis for the optimization of the enrollment policy in the future. Using the Mann-Whitney U test for the hometown (rural and urban areas), the difference was tested. There were no significant differences in the self-cognition of different qualities between the participants from rural and urban areas. Therefore, the difference can be ignored in the enrollment of students in rural education.

Table 3. Differences in self-cognition of the participants from the urban and rural areas using Mann-Whitney U TEST

	Mann-Whitney U	Wilcoxon W	Z	Asymptotic significance（double tailed）
Teaching ethics	2208.5	5863.5	-0.388	0.698
Educational professionalism	2252	3737	-0.189	0.85

Table 3. *cont.*

Geographical skills	2211.5	3696.5	-0.372	0.71
Self-development qualities	2009.5	3494.5	-1.25	0.211
Comprehensive qualities	2220	3705	-0.325	0.746

The self-perception scores of the participants in the senior, junior, and sophomore years were 4.1515, 3.8450, and 3.7293, respectively. Low self-evaluation was observed for junior students and high self-evaluation for senior students. Such a result indicates that the length of studying at the university had a significant impact on the comprehensive qualities of the participants.

5. Conclusions

Based on the analysis of the questionnaire survey data for the students in the normal university, self-cognition and evaluation in teaching and training were investigated with the newly proposed evaluation index system. The students who majored in geography and were designated to be rural teachers were recruited in the survey. The difference in the self-evaluation was investigated for their grades in the university, hometowns, and regions. From the result, the following conclusion was drawn.

(1) The shortcoming of self-development qualities was observed.
(2) In terms of regions, a difference in self-development qualities was found between the students from northern and central Jiangsu. The self-evaluation of teaching ethics, geographical skills, and self-development qualities of the students from central Jiangsu was lower but their self-evaluation of education professionalism was slightly higher than those from northern Jiangsu.
(3) There is no obvious difference in self-development qualities between the students from urban and rural areas.
(4) The longer the study time in the university, the higher the self-evaluation.

Suggestions were made to improve the teaching quality of geography teachers based on their characteristics as follows.

(1) Introducing an elimination system

After enrollment, the students to be rural teachers often hold the mentality that they obtain stable jobs as long as they graduate on time, resulting in a lack of external driving force for learning. For this reason, an elimination mechanism needs to be introduced so that students can study harder in their major courses. They also must take the national exam for teacher certification. Only students who pass the national unified examination must become rural teachers.

(2) Caring students' emotional feelings and enhancing the sense of mission of rural education

Normal colleges or universities must strengthen education on professional identity for teacher trainees. They can invite outstanding rural teachers at the beginning of students' enrollment. Through face-to-face communication, students can have a clearer understanding of careers as rural teachers. Courses related to career planning need to be added to the curriculum.

(2) Improving students' self-learning ability and encouraging them to be reflective teachers

The students must be encouraged to go into the rural environment and learn about rural education through independent study to establish a lifelong career serving rural education. For example, we can organize students to conduct research activities on the current situation of rural education so that they can experience rural education earlier to prepare themselves. In addition, we can encourage students to develop local geography courses by investigating local resources and to enhance students' sense of achievement in learning.

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