

The Professional Development of Primary School Teachers in Rural China

Yubei Jiang

Urban Vocational College of Sichuan, Chengdu, China

Abstract: The professional development of rural teachers is not only related to their personal growth, but also directly affects the improvement of rural education quality and the future development of rural students. Although the professional development of rural teachers is highly valued in today's society, there is still an issue of unequal education resources and investment between urban and rural areas in China. This study aims to determine the professional development of primary school teachers in rural China. This study used a questionnaire survey method to determine the career development in rural China. 600 teachers will be randomly assigned to 50 rural primary schools in Sichuan Province. After collecting data, this study will use SPSS for analysis to measure the professional development of participants. This has potential impacts on both policy and practice. In addition, this study provides a solid evidence foundation for policy-making on training opportunities.

Keywords: Professional development; Rural China.

1. Introduction and Background

Although the geographic dimensions of educational inequality in many developing countries attached great importance in past decades, there is still education resource inequality in China between rural and urban areas. First, there is inequality in the educational background of teachers. According to data from the Chinese Education Statistical Yearbook (2020), 62.37% of urban primary school teachers in Jilin Province graduated with a bachelor's degree or above, and 5.67% graduated from high school or below [1]. However, the proportion of rural primary school teachers with a bachelor's degree or above is only a little more than a quarter. Most rural primary school teachers are junior college graduates. Junior high school urban and rural teachers mainly graduated from undergraduate courses. For them, urban teachers with a master's degree outnumber rural teachers by nearly five percentage points. About 11 per cent of junior high teachers in urban areas have a college degree, while above 30 per cent of junior high teachers in rural areas have a college degree. Therefore, the overall education background of rural teachers is less advantaged than that of urban teachers, which may affect the development of rural education and the quality of teaching. Second, there is inequality in educational investment between rural and urban regions. The fiscal authority has been transferred from central to local government since 1990 so that investment in education was answerable by local governments and communities. Although the annual urban and rural local fiscal expenditure decreases year by year, there is still a convinced gap. The per capita education expenditure that is the educational expenditure of each student reflects education financial investment. According to the National Bureau of Statistics (2010), in 2010, the per capita educational expenditure in urban areas was 6,723.28 RMB, and in rural areas was 5,874.07 RMB. In 2011, the per capita expenditure on education in urban areas was 7,211.09 RMB, and that in rural areas was 5,909.23 RMB [2].

There are different ways of presenting the professional development of teachers in the relevant literature. This study will mainly focus on opportunities for teachers' learning. This is because the heart of the teacher's professional development

is the teachers' learning, the process through which teachers translate their knowledge into practice to help their students' self-growth and achieve their teaching goals. Bautista and Ortega-Ruiz (2015) also believe that teachers' professional improvement is the advancement of individual abilities, knowledge, proficiency, and other characteristics that they develop as educators [3]. As for the scope, one of the aspects that have not received consensus among researchers is the target audience for professional development activities. The vast majority of studies assume that the target audience for professional development activities are in-service teachers, as only these people can be considered professionals. From this perspective, the professional development of instructors is regarded as comparable to in-service educator instruction. On the contrary, other researchers have argued that teacher education programs in schools (Normal Universities and Colleges) and internships are part of the professional journey of teachers, therefore claiming that pre-service educators can also be as a target group of onlookers for instructor professional improvement activities [4]. This study will focus on both pre-service and in-service professional development activities.

The professional development of primary school teachers is significant for student achievement. Yoon et al. (2007) found out that teachers in the nine studies received an average of 49 hours of professional development training, which could improve student achievement by about 21 percentage points [5]. Professional development influences understudy accomplishment through three steps. Firstly, through assistance from professional training activities, teachers enhance their professional knowledge and competence to prepare them to increase classroom teaching quality. Secondly, the use of skilled information and competencies in the classroom leads to improved teaching ability and students' learning in the class. Thirdly, progress in teaching solves problems encountered by students in their learning and enhances their performance. For illustration, students will not advantage of a teacher's proficient improvement in case the educator is not able to apply the new strategies of instructing and learning from the experienced progress to the teaching class.

2. Research Objectives or Questions

The research question is the professional development of primary school teachers in rural China. The professional development of rural primary school teachers requires our great attention, as the principal contradiction in the development of rural education in China is the need for educational development in rural areas and the low level of professionalism of teachers. With the development of urbanization in China, more and more farmers are moving to the cities for work. Considering that teaching resources in urban schools are even better than in rural areas, most rural parents send their children to study in cities, while fewer and fewer students stay in rural areas. In 2001, China implemented the policy of "merging primary schools with schools in rural areas," which has led to a significant reduction in rural primary schools. There is no doubt that the devaluation in the number of rural primary schools and students has affected the introduction of professional primary school teachers. Although over the years, China's education policy has been inclined to the education resources in remote mountain areas, backward areas, and ethnic minority areas, the educational hardware facilities in these areas are no longer the most important problem for the development of education. On the contrary, the professional development of rural teachers should take priority. In the second place, the professional development of teachers plays a significant role in teaching, leading the teaching process and the realization of teaching objectives. According to Mizell (2010), professional development empowers teachers to memorize the knowledge and abilities vital to address the recognized understudy learning issues more viably [6]. Learning objectives are met when students' difficulties are handled with the professional assistance of teachers.

3. Approach or Paradigm

There are several theoretical paradigms presenting within the literature, such as constructivist, positivist (and postpositivist), positivist (and postpositivist), interpretivism, transformative, emancipatory, emancipatory, pragmatism. Paradigm has been described to collect, analyze and interpret data in some way to "understand, describe, forecast and regulate educational and psychological phenomena and, in this case, to empower individuals" [7]. It is important to determine the research paradigm, as it gives a more profound understanding of how research is operationalized and the components that advance genuine issues, arrangements, and criteria for evidence.

This research paradigm is positivism. Studies aligned with positivism generally focus on identifying explanatory associations and causal relationships through quantitative approaches, where empirically-based findings from large-scale sizes are favoured. According to data from the National Bureau of Statistics (2020), the number of primary teachers in rural China is approximately a 187.23billion. The samples of this large-scale research should be numerical, and the study will be quantitative research. Mackenzie and Knipe (2006) believe that the research connected to the positivist or postpositivist worldview regularly employments overwhelmingly quantitative strategies (approaches) for information collection and examination, but not necessarily the as it were way [8]. Therefore, the paradigm of this research is positivism.

4. Methods

4.1. Participant

There are two methods of sampling consist of probability and non-probability samples. This research will apply probability sampling. A probability sample, since it draws randomly from the more extensive populace, is valuable in case the analyst wishes to be able to form generalizations since it looks for representativeness of the more extensive population. Therefore, the sampling strategy is probability sampling, which is more suitable in this research with a large-scale population.

The survey will be carried out in Sichuan Province, which has the most significant number of rural teachers in China (Sichuan Bureau of Statistics, 2020). Six hundred rural primary school teachers will randomly be chosen from 50 rural primary schools to be involved in Sichuan province. There is background information about the sample schools. This study randomly selects 50 rural primary schools in rural Chengdu, rural Mianyang, rural Aba Tibetan, and Qiang Autonomous Prefecture, representing three different levels in terms of annual per capita income, rural population, and culture. According to the annual per capita income of rural Chengdu is the highest among the three districts, which is 42,075RMB (US\$ 5,926). The annual per capita income of rural Mianyang and rural Aba Tibetan and Qiang is respectively 35,319RMB (US\$ 4,975) and 29,017RMB (US\$ 4,087) [9]. In terms of the rural population, Aba Tibetan and Qiang Autonomous Prefecture. The rural population of Chengdu is more than twice that of Mianyang, which is respectively 6.628 billion and 3.071 billion, and Aba Tibetan and Qiang Autonomous Prefecture are the smallest, which is 0.646 billion [10]. As for local culture, there is mainly han culture in Chengdu and Mianyang, while the culture of Aba Tibetan and Qiang Autonomous Prefecture is minority Yi and Tibetan. Therefore, participants from different economic and cultural backgrounds are beneficial to the generalization of this study.

4.2. Measure

For the literature review, there are different methods available conducting this research, such as survey, group interview. As interviews are often described as self-administered questionnaires and have some commonalities, the approaches of the interview and the questionnaire are frequently compared with each other. While each has points of interest over the other in certain regards, there are further limitations of the interview when implemented in this research. On the one hand, effective data depends on the experience and expertise of the interviewer. Specifically, the effectiveness of interviews depends on intensive instruction and competence of interviewers as also mindful supervision over them. Failing this, the data recorded may be inaccurate and incomplete. On the other hand, the limited samples of group interview sample may not identify the professional development situation in rural China. The interview sample size will not be as large as the questionnaire survey due to obtaining in-depth information from participants. The sample size of the questionnaire survey can be up to 1000, and the sample size of the group interview might be up to 100. Given its operationalization and the richness of the sample size, this research will carry out by survey.

A questionnaire will apply as the primary method to explore the primary school professional development

situation. The questionnaire consists of three sections. The first section is the basic information of participants, including gender, age, educational background, graduated college and major, teaching age, professional titles, job position, school. In the second section, according to teacher standards of Department for Education (2011), the questions are designed according to the two dimensions of teaching ability and personal and professional behaviour to understand the subjective feelings of rural primary school teachers on teacher professional development. For example, What aspects of your work did in the appraisal procedures [11]? There are optional choices curriculum planning, assessment, teacher-student interaction, individual feedback, and so. The third section is vocational training opportunities inquiry, including pre-service professional training and in-service professional training. Pre-service training is professional training and internship opportunities that you receive during your college years. Meanwhile, in-service training allows for such activities that may include seminars, workshops, conferences, classes, exhibitions etc, that are designed to develop and improve employees in an organization from the initial employment stage to retirement. The frequencies and satisfaction of those different forms of activity opportunities can be measurable. For example, the question is: "In the past 12 months, how often have you engaged in the following activities?" There are multiple choices never, once or twice a year, several times a year, once a month, more than once a month.

4.3. Process

In the preparation stage, the designed questionnaires should be pilot to a small target group. It is critical to pilot surveys for appropriateness (broadly defined) before utilizing them within the research. There are three steps. First, once wrapped up planning the survey questionnaire, discover 5-10 individuals from the target group to pretest it. Second, observing them as they fill in the survey and record your observations at the same time. It is necessary to watch the issues where participants feel doubtful and confounded when completing the survey or where the research goals are not achieved and record the matters watched. For example, the frequency of educators receiving professional development training activities is not at a reasonable level. It indicates that the study questions and plan are not rigour sufficient and required to be improved. Third, make advancements based on your discoveries. When the testers have completed the overview, they will survey each meet transcript at this time, which may offer assistance to alter the questions. In any case, in case notable alterations to the queries or structure are required, it may be essential to rehash a pre-session work out with a diverse individual before the overview starts.

Before the implementation stage, using Cronbach's alpha as a measure to ensure the reliability of the questionnaire. To be specific, According to the University of California, Los Angeles (UCLA) Institute for Digital Research&Education (2021), Cronbach's alpha is a measure of internal consistency, it means how closely a group of items is linked as a group. In general, the higher the coefficient, the higher the reliability of the questionnaire [12]. As for this research, this coefficient should not be less than 0.8 to ensure reliability. At the Implementation stage, the modified questionnaire will distribute to participants through an online survey tool. After completion, the data of the questionnaire is automatically fed back by the software, and each participant who finishes the

questionnaire will receive a small gift. Then, eliminating invalid questionnaires. There are three criteria for invalid questionnaires. First, most of the choices selected by respondents are the same type or have too strong regularity. Second, respondents answered a small number of questions, more missing questions. Third, the answers to the questionnaire were the same in the same school.

At the data analysis stage, the questionnaire data will be analyzed by Statistical Package for the Social Science version (SPSS).

5. Potential Methodological Challenges

Potential methodological challenges should be considered before implementation. There are two challenges through the process. Questionnaires have blameful notoriety over the past years, as researchers saw their reaction rate decay. First, the challenge of the number of response questionnaires reaches the planned number. On top of that, this is because the threat of personal privacy leakage affects the response rate. The questionnaire has had a negative reputation over the last few years, as researchers found their response rate fall. The leakage of personal information and privacy may negatively affect the participants, such as telephone harassment and network fraud. Meanwhile, It is challenging to get the large-scale number of teachers' consent that they are willing to participate in this research. As mentioned before, there are approximately 187.23 billion primary teachers in rural China. The number of participants is 600, so the target participants of the study are prominent. Getting such many participants consent to participate in the research can be a lengthy process. Second, the challenge of the quality of response surveys numerous analysts are persuaded that overview rebellious have a most extreme length beyond which there's an expanding likelihood of untimely end, arbitrary reacting, or other behaviour designs which result in information of lower quality. The questionnaire consists of three sections including 60 items. The time participants spend on fill in the questionnaire is long, which may affect data quality.

6. Approach to Analysis

With the development of statistical analysis technologies, Statistical Package for the Social Science (SPSS) is a widely used program for statistical analysis in social science. In this research, questionnaire data will be analyzed using SPSS. Statistics including means, standard deviations, frequencies, and percentages were used to describe the professional ability and knowledge, opportunities of professional development training. There are several dimensions for measuring teaching ability and personal and professional behaviour, such as teaching plan design skills, teaching implementation skills, teaching evaluation skills, communication skills. Besides, professional development frequency, provider, funding, model are used to measure professional opportunities activities. Finally, the professional development of participants is obtained.

7. Ethical Considerations and Research Integrity

The questionnaire will always interfere with the respondent's life, whether in terms of the time required to complete it, the extent of danger or sensitivity of the questions, or the potential breach of privacy. Ethical considerations are

crucial for conducting the survey, which concerns what researchers should do and should not do through the process. As for this study, it is typical Internet-based research. Internet-based research is broadly defined as research that involves using the Internet to gather information through online tools, such as the online survey. Therefore, Internet-based research ethics should take priority in this research.

Eysenbach and Till (2001) suggested that Internet-based research brings up several ethical issues, particularly about privacy and informed consent, even though it can also be an abundant source of information for subjective analysts [13]. First, the concern of Internet-based research ethics to personal privacy is usually manifested in the level of connectivity between data and individuals and the potential harm of information disclosure. With the increase of Internet-based research and computational complexity, ethics is centred on current and future uses of information and the possible downstream hurts to clients. Ensuring the privacy and secrecy of investigating members is regularly accomplished through an extended of exploring approaches and honed, counting eradicating information to evacuate identifiable data, collecting data in a controlled or mysterious environment, or utilizing get to limitations and related information security strategies. In expansion to methodological contemplations concerning protection and secrecy, the specificity and characteristics of the information frequently direct whether there are administrative contemplations. Second, participants should be informed consent as human subjects protection. Offering informed consent usually involves the researcher explaining the objectives of the study, the methods to be used, the possible outcomes of the study, and the associated risks or harms that participants may face. The process must give the members a clear and justifiable clarification of these issues briefly, provide a plentiful opportunity to consider these issues and inquire questions approximately any perspective of the think about before consent is given, and guarantee that the subject is not being coerced into partaking. Permission in conventional inquiry is usually obtained verbally or in composing or in a face-to-face assembly where the researcher audits the report internet-based research can be scripted by telephone, mailing documents, fax or video, and in the case of vulnerable groups, with the assistance of an advocate. Most vitally, informed consent is based on the perfect 'process' and confirmation of awareness, and so requires a great link of progressing communication between analyst and member and between analyst and member. The appearance of the Web as an investigation apparatus for investigate needs, whereas permitting for communication anyplace and anytime, too makes it more troublesome to construct great connections.

8. Summary

8.1. Conclusion and implications

Although rural teachers' professional development attaches excellent importance nowadays, there is education resource and investment inequality in China between rural and urban areas. As the principal contradiction of rural education development is the need for teachers' professional development, this study aims to identify the professional development of primary teachers in rural China. This study applies a questionnaire survey to identify professional development in rural China. Six hundred teachers will randomly put into 50 rural primary schools in Sichuan province. After collecting data, this study will apply SPSS to

analyze to measure the professional development of participants.

There are potential implications for both policy and practice. On top of that, this study provides a substantial evidence base for policy-making about training opportunities. There are different kinds of training opportunities at in-service training and pre-service training, including teacher-corporate seminars, conferences, internships, exhibitions. Analyzing the survey data to know whether the training opportunities meet the needs of teachers' professional development, increase some training opportunities, to improve the related policies of vocational training. Moreover, there are three aspects of practice implications for rural primary schools, rural primary school teachers, and Normal colleges and universities. First, it can objectively describe the professional development of rural primary school teachers and scientifically understand the professional development level of rural primary school teachers, which is conducive to improving the evaluation mechanism of rural primary schools and providing a specific reference basis for the selection, employment, assessment and training of rural primary schools. Second, through the description of the current situation of the professional development of rural primary school teachers, it is helpful to understand the level and characteristics of the professional development of rural primary school teachers, as well as the current situation and influencing factors of the professional development of rural primary school teachers. It is conducive to the school, society, and the Ministry of Education to perfect the evaluation mechanism. A reasonable evaluation mechanism can promote the professional development of rural primary school teachers.

8.2. Reflection on feedback

The implementation of research requires professional knowledge and rich experience, and some details are challenging for novices to consider. The professor's feedback benefits me a lot in this regard, there are two main changes for the proposal considering it.

First of all, the professor's feedback provided constructive suggestions for determining the specific types of professional development. As there are different definitions of professional development in the relevant literature, it is necessary to define the type of professional development in this research. The defined professional development is considered as activities that develop an individual's skills, knowledge, expertise, and other characteristics as a teacher. This study focus on the standard of primary school teachers and professional development opportunities available for primary school teachers in rural China. After that, the feedback of the professor helps to identify the type of professional development. Moreover, the change of sample size. Determining the right sample size is crucial for method design, this is because it can influence the probability of finding a statistically significant result. As the original sample size is small for this large-scale research, the professor's feedback helps me reshape it. The professor advises considering sample size from population size, local culture.

8.3. Hasdfhask

Acknowledgments

This work is supported by Research Project of The Sichuan Association for Non-Government Education, Project Number: MBXH24YB389.

References

- [1] National Bureau of Statistics (2010). Chinese Education Statistical Yearbook in 2010. https://www.baidu.com/link?url=_X0eqOCHhDDRSpPRofEg1h-ea8oO6tzjI72Prn2k8H3u-1mLsG_9Uo9bWnuCdQTC&wd=&eqid=a6a3e73400008da20000006607fd51d
- [2] National Bureau of Statistics (2010). Available at: Annual expenditure statistics for urban and rural residents in China http://www.stats.gov.cn/tjsj/zxfb/202104/t20210416_1816307.html
- [3] Bautista, A. and Ortega-Ruiz, R., 2015. Teacher professional development: International perspectives and approaches.
- [4] Niemi, H., 2015. Teacher professional development in Finland: Towards a more holistic approach.
- [5] Yoon, K.S., Duncan, T., Lee, S.W.Y., Scarloss, B. and Shapley, K.L., 2007. Reviewing the evidence on how teacher professional development affects student achievement. issues & answers. rel 2007-no. 033. Regional Educational Laboratory Southwest (NJ1).
- [6] Mizell, H., 2010. Why Professional Development Matters. Learning Forward. 504 South Locust Street, Oxford, OH 45056.
- [7] Mertens, D.M., 2005. Research and evaluation in education and psychology: integrating diversity within quantitative, qualitative and mixed methods. Ed. Sonny Nwanko.
- [8] Mackenzie, N. and Knipe, S., 2006. Research dilemmas: Paradigms, methods and methodology. Issues in educational research, 16(2), pp.193-205.
- [9] Sichuan Financial Bureau of Statistics (2020). Sichuan Financial Statistical Yearbook in 2020. Available at: <http://www.stats.gov.cn/tjsj/nds/2010/indexch.htm>
- [10] National Bureau of Statistics (2020). Demographic Statistics of Teachers by Region in China. Available at: <https://www.chyxx.com/industry/202101/925505.html>
- [11] Department for Education (2011). Teachers' Standards. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/665520/Teachers_Standards.pdf
- [12] University of California, Los Angeles, 2021. Institute for Digital Research&Education [online]. Poole: University of California, Los Angeles. <https://stats.idre.ucla.edu/spss/faq/what-does-cronbachs-alpha-mean/>
- [13] Eysenbach G., & Till J.E. (2001) Ethical issues in qualitative research on internet communities, British Medical Journal. 323: 1103-1105.