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Agriculture environment influence on urban and rural areas teacher's investigation research

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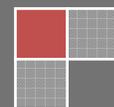
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ABSTRACT

About the agriculture environment influence on the rural teachers' developments problem, we go proceed with investigations and interviews in middle and primary schools of Chengdu-Chongqing area. Through checking rural education document literature and comprehensive analysis, we find that some problems of rural teachers such as virtual high education background after induction, backward education concept and general low situation of education theory, unreasonable knowledge structure, low teaching ability, old professional knowledge, difficult in updating new knowledge, low ability for applying. They not only have not formed professional knowledge system yet but also in lack of social support and participating enthusiasm.

KEYWORDS

Urban and rural; Agriculture environment; Investigation.



INTRODUCTION

Knowledge is the basic guarantee and precondition for teachers to develop education and teaching, to enrich their professional qualities, to realize their lives values. Professional knowledge is not only the important basis of teachers' professional development but also the important guarantee for promoting the teachers' getting professional^[1] (Yang, 2004). Professional knowledge is the fundamental elements in teachers' professional quality. It lays foundation for teachers' professional abilities, speeds up the professional developments, helps to construct the professional authority for rural teachers especially for western rural teachers. Every teacher needs to supplement, update, develop and complete the necessary knowledge for professional activities in order to continuously improve their knowledge, comprehensive quality and professional level, and then enhance themselves' practice innovation level and the actual work results. Therefore, the development and improvement of professional knowledge is the basis and guarantee to promote the western rural teachers' professional developments. It relates to the western rural teachers' team building and the balancing education developments of urban and rural area in western area^[2]. Now under the background of the current balancing education in urban and rural area, the real situation of China western rural teachers' professional knowledge and the outstanding various reality problem they are facing have a strong impact on western rural teachers' professional development^[3].

MATERIALS AND METHODS

We go proceed with questionnaire investigations after we random select 2000 teachers from nearly 100 rural primary and secondary schools in more than 20 counties of Chongqing and Sichuan which were choose as the balanced balance urban and rural comprehensive reform pilot area. We totally take back 1668PCS questionnaire with the valid questionnaire 1650PCS. In the questionnaire list, 41.3% of the investigators are primary school teachers in towns, 5.8% are the primary school teachers in villages, 41.9% are middle school teachers in towns, 6.0% are the nine-year system teachers, 5.0% are the high school teachers in rural area. It includes 22.4% teachers under 30 years old, 39.3% teachers from 30 to 39, 28.5% from 40 to 49, 9.8% teachers older than 50. 6.4% of them are senior staff, 44.4% are high school first class teacher, 40.4% are the high school secondary class teacher, 5.0% are high school third class teacher, and 3.8% are non-title teacher. 11.3% are the teachers have 5 or more than 5 year experience, 23.0% are teachers have 6-10 year experience, 34.5% teachers have 11-19 year experience, 21.7% teachers have 20-29 year experience, 9.5% teachers have 30 or more than 30 year experience. About their initial education background, 50.7% are high school teachers, 36.2% are associate degree, 8.2% are bachelor degree, 3.5% are high school graduated, 0.7% is Master Degree, and the rest takes 0.7%. About their highest education records, 9.5% are the high school teachers, 31.3% are associate degree, 56.2% are bachelor degree, 1.7% of them are high school graduated, rest takes 0.7%. About their recruitments, 67.5% are assigned by schools after graduation, 11% formal workers are from private teachers, 15.8% are from competing for a post, the rest takes 5.6%. About the ways they are getting the highest education level, 58.7% are graduated from correspondence school, 12.4% pass the self-study exam, 11.5% are full-time mid-career studies, 6.4% are graduated from TV university, 9.7% still keeps their initial education level, rest takes 1.4%. About their working situation, 8.3% are top leaders, 12.3% are senior leaders, 79.4% are professional teachers. About the subjects they are teaching, 38.5% are Chinese, 27.3% are math, 6.4% are foreign language, 7.5% are physics, 3.2% are chemistry, 5.9% are politics, 3.5% are history, 1.2% are geography, 2.3% are science, and 4.3% are art & PE.

We adopt "the questionnaire of Western rural teachers' professional development solutions under balanced rural and urban education" which designed by national education science "Eleven Five Plan" of Ministry of Education according to subject "Western rural teachers' professional development solutions under balanced rural and urban education background". After recapture those questionnaires, we use SPSS16.0 for Windows XP to census those questionnaires, to statistical process and concretely analyze those data. The real situation and some problem of western rural teachers' professional

knowledge under balanced rural and urban education development background starts to shows after we check the rural education documents records of other western provinces or municipalities, then comprehensively analyze those data and the questionnaire data^[4].

RESULT

As the professional workers bearing important social function, the knowledge and the ability of teachers is very important for the students' studies. The teachers' profession is the core of teachers' teacher profession quality^[5]. Teachers are not able to go proceed with normal teaching, not able to improve the teaching quality, and then it will affect the students' study quality if the teachers are not equipped with good or basic professional knowledge.

Environment influence on rural teachers' professional knowledge development

Since the implementation of develop-the-west strategy and educational benefit policies, the education situation in the western regions has a new look: it has realized an important progress, and significantly increased spread level of education^[6]. The coverage rate of the target population attaining these two goals in the western region closes to 100%, people are more accessible to education, and rural education has obtained an unprecedented development^[7]. Three autonomous regions in the west, except a few counties in Tibet, all have realized a universal compulsory education, and education in minority areas has gained exciting and gratifying achievements, thus, teachers in western rural areas deserve the development and progress.

In recent years, teachers in western rural areas have generally improved their professional knowledge, mainly reflected in improved academic achievements^[8]. The survey shows that the first degree of most teachers in western rural areas are not high, secondary normal school education accounts for 54.2%, and college degree accounts for 36.2%. After accepting in-service training such as correspondence, self-study, full-time mid-career studies, TV education and other ways, nearly 90% of teachers have improved their qualification in varying degrees, as showed in TABLE 1.

TABLE 1: Teachers' educational background in western rural areas

Educational Background	Secondary Normal School	Junior College	Undergraduate	Postgraduate	Others
Pre-occupation	54.2%	36.2%	8.2%	0.7%	0.7%
Promoted after occupaton	11.2%	31.3%	56.2%	1.0%	0.2%

environment influence on artificially high post-occupation education

With the progresses of the times, improvement of the external environment and changes in teachers, the overall quality of teachers in western rural areas has been greatly improved, but there are still many insufficiencies in professional knowledge^[9]. From TABLE 1, we can find that most teachers in western rural areas were graduated from secondary normal schools, accounting for 54.2%; college degree accounts for 36.2% of, bachelor degree or above only account for less than 9%. After accepting in-service training, nearly 90% of the teachers have improved their qualification in varying degrees, among them teachers with college degree reach 31.3%, and teachers with a bachelor's degree or above reach 57.2%. However, the conditions cannot preclude the effects of utilitarian factors. Improved qualifications have been primarily obtained through correspondence, self-study, and TV education and other ways, so the gold content of the diploma is not real. This has artificially increased the post-occupation qualifications of teachers in western rural areas, and resulted in the loss of excellent teachers with secondary normal school degree to some extent.

During the survey, we found some hilarious but thought-provoking things. There is one slogan "Being insatiable in learning, being tireless in teaching – Sun Tzu" in one classroom of a rural primary school in Chongqing; signs of "male side", "female side" are attached on the toilet doors besides the "classroom" rented by second grade of one rural primary school in Yunnan Province; in one rural

primary school of Rongjiang in Guizhou, there is one slogan saying "Do not take illiterate wife, do not marry illiterate husband"..... no matter a lack of awareness of the ancient educator Confucius, or errors in common used characters, we can see the existence of artificially high post-occupation education among teachers in western rural areas, and their basic cultural qualities need to be improved.

Due to the long-term impacts and constraints of examination-oriented education system, teachers in western rural areas fail to keep up with the requirements and paces of quality-oriented education, and their educational concepts are outdated and backward^[10]. Most of them are in pursuit of students' test scores, but neglect the cultivation and improvement of students' comprehensive quality. In their opinion, only homework training, or even overweight load of study can improve students' achievements. The educational concept of teachers in western rural areas is shown in TABLE 2. Along with the development of information technology in education and deepening of educational reforms, teachers are expected to improve their professional knowledge structure. On an effective integration of the disciplinary knowledge, education scientific knowledge, education practical knowledge and general cultural knowledge can fully embody the scientificity and artistry of teachers' teaching, and achieve better teaching results. The survey shows that most teachers in western rural areas are more concerned about disciplinary knowledge and technical knowledge, including practical knowledge and teaching skills in disciplinary knowledge, but they pay less attention to knowledge of educational theory and common scientific and cultural knowledge. Professional knowledge structure of teachers in western rural areas is shown in TABLE 3. Meanwhile, many of the A-list teachers in western rural areas are not graduated from normal universities, and they are not teaching their own professions. Especially science, art and physical courses, mostly are taught by the head teacher, or allow students to move freely or study by themselves. Many teachers repeat the same teaching work for many years, they rarely change their teaching contents and methods, they are not willing or even afraid of changes, and they will not review and rethink their own teaching behaviors; many teachers are accustomed to empirical teaching practices and emphasize owned teaching experience, which make it difficult for them to actively think about problems, or strive for improvements in teaching, thus, teaching work is hard to achieve changes, innovations and improvements^[11].

TABLE 2: Educational concept of teachers in western rural areas

Attitude towards "Leave as much homework as possible to students, in order to improve their performances"	Totally agree	Basically agree	Hard to say	Basically disagree	Totally disagree
	4.8%	33.7%	15.5%	36.8%	9.0%

TABLE 3: Professional knowledge structure of teachers in western rural areas

The most important part of teacher's professional knowledge structure	Common scientific and cultural knowledge	Education disciplinary knowledge	Disciplinary professional knowledge	Practical knowledge
	7.6%	24.2%	45.5%	22.7%

Environment influence on educational theory

Teachers in western rural areas have neither fully grasped theoretical knowledge about pedagogy, psychology and subject teaching approaches, nor fully understood and mastered advanced education concepts and ideas in new curriculum reforms, so they rarely or even not understand current educational trends at home and abroad^[12]. Many teachers' understanding of the new curriculum seem to be limited to vague concepts and ideas, more than a third of the teachers do not even know the specific content of the three-dimensional target in the new curriculum, see TABLE 4, and they are generally lower in theoretical level of education. Besides, in terms of the application of education professional knowledge and researches on education and teaching, we can see that teachers in western rural areas are lower in level of educational theory. 49.4% of teachers said "have not completed papers" or "have accomplished papers but not published". Many principals reflected in the interview, teachers stay in

poor working and living conditions, they have heavy burden, fewer learning opportunities, lack of information, and need "brainwashing of theories". The reason may be: firstly, middle and old aged teachers take in a large proportion of teaching teams in western rural areas, they learnt education theoretical courses long ago, and they may forget specific contents; secondly, teachers in western rural areas have not accepted high quality pre-service education, and the quality of continuing education is not good; thirdly, teachers in western rural areas have fewer chances of accepting professional training of new curriculum or systematic study, so they know less about the new curriculum.

TABLE 4: Teachers' levels of educational theory in western rural areas

In addition to knowledge and skills, emotion, attitude and value, other aspects in three-dimensional targets in new curriculum	Inheritance and innovation	Process and method	Reform and development
	24.2%	65.0%	10.8%

Environment influence on education professional knowledge

As the acceleration of the globalization process of information, technology and economy, the community has raised increasingly higher demands for teachers. If teachers do not attempt to master professional knowledge, they are not competent to tasks of reform and development of contemporary education. Most teachers in western rural areas only emphasizes on disciplinary knowledge, but neglect necessary educational knowledge; most teachers are confident about their disciplinary knowledge, 69.2% of teachers consider they have no problem with their disciplinary knowledge; they do not pay much attention to absorb new educational knowledge, but their mastered educational knowledge cannot keep pace with the times. New teachers mainly learn experience from old teachers, but old teachers have limited time and energy in updating new professional knowledge, because they are always busy with teaching work. 56.2% of teachers reflect time and energy spent in improving professional quality is not sufficient, so they can only rely on experience, and their teaching practices lack of the guidance of scientific theories. The application of educational theories is directly related to teachers' teaching effect. Although teachers in western rural areas have generally recognized the importance of pedagogical knowledge, their application of pedagogical knowledge is not optimistic. In the survey, only 11.6% of teachers in western rural areas "frequently use" pedagogical knowledge and have achieved "satisfying results", up to 44.2% of teachers "frequently use" pedagogical knowledge but have not achieved "satisfying results", teachers' application of pedagogical knowledge in western rural areas is shown in TABLE 5. This points out that the majority of teachers have not achieved satisfying results in the application of pedagogical knowledge in practices. They are expected to keep exploring education scientific theories on the basis of working practices expand pedagogical knowledge and learn to apply it in practice.

TABLE 5: Teachers' application of pedagogical knowledge in western rural areas

In your opinion, what is teachers' application of pedagogical knowledge in teaching:	Very good	Not ideal	So so	Rarely use	Not use
	11.6%	44.2%	30.8%	11.4%	1.9%

Teachers in western rural areas have fewer opportunities to participate in continuing education, or only get access to lower-level trainings, and these inevitably will affect their self-improvement. The survey showed that only 28.9% of teachers in western rural areas have attended higher-level continuing education and training, most teachers only attended county-level or school-level trainings, and some teachers never participated in any training. In-service training of teachers in western rural areas is shown in TABLE 6. 27.5% of rural teachers said the continuing education and training have not achieved expected results. Due to insufficient in funding, remote school location and other factors, many schools in western rural areas have not established an integrated network infrastructure for distance education, and this may teachers to obtain and update new knowledge on the Internet. The advent of educational

reform has touched many teachers, but most of them still feel helpless because of their sluggishness and insufficient knowledge.

TABLE 6: In -service training of teachers in western rural areas

What is the highest-level of continuing education and training you accepted :	National Level	Provincial Level	Municipal Level	Country-Level	School Level	Never accept training
	7.6%	21.3%	20.1%	38.4%	10.1%	2.5%

Environment influence on expanding professional knowledge

Teacher has dual natures. One is the major they teach. The other is education major. Teachers' specialization requires the teachers to be equipped with profound professional knowledge. They should not only know education science knowledge but also master education skills. However, our current teacher education's professionalization system has not been completed yet. It is still far behind from the standards of teachers' education professionalization and education professionalization. There is no department plans the teachers' further education and training after recruitments. The professional knowledge development system has not been formed yet. The situations of simple repeat knowledge and crossing training are serious. They also do not have clear detailed knowledge development target. The missing of unified integrated professional knowledge system in teachers' education leads to the incomplete situation of teachers' professional knowledge system.

The outside support for western rural teachers' professional knowledge development system is not very strong, which needs further improvement and perfection. The normal schools, college of education, education schools, the training institutions and so on are fighting on their own. The various distance education network, radio and television, libraries and bookstores failed to give full play to the education function. The research shows that 37.5% supplement of western rural teachers' professional knowledge are from home computer, 32.2% are from self-buying books and other ways on themselves. They seldom use the distance education resource in schools' libraries and towns. 21.5% rural teachers never attend any research activities outside the school. 30% rural teachers attend the training in order to improve education background.

CONCLUSION

In conclusion, western rural teachers have many real problems in professional knowledge such as virtual high education background after induction, backward education concept and general low situation of education theory, unreasonable knowledge structure, low teaching ability, old professional knowledge, difficult in updating new knowledge, negative expanding enthusiasm and so on. The western rural teachers are usually with low education background. Their professional knowledge should focus on accumulating their own majors' professional knowledge, expanding the education professional knowledge. Considering the shortage of teachers, the professional knowledge should not be limited to growing and deepen of original subject knowledge. We should choose according to needs, compare the practical experience with education knowledge, and continuously accumulate effective teaching knowledge. Facing to the multivariate education needs in rural area, western rural teachers should complete their daily teaching work, accumulate the professional knowledge, and promote the development of rural area. It is the only way to adapt to the development needs of western rural community by accumulating more knowledge and expanding their view points.

The western rural teachers' tasks and ways of professional development should be established on rural development needs in the background of balanced rural and urban education development. They would construct and optimize their own knowledge structure on their own initiatives. Except the scientific and cultural knowledge, education knowledge and majors' knowledge and practical knowledge, teachers should seriously master the regional culture in the countryside of west China,

summarizes the advantages and disadvantages in the countryside of west China, actively learn the knowledge theory, principles and policies documents of balanced development in rural and urban area, actively apply them in education teaching practice. We should work hard to find an effective way which is different from urban teachers and original teaching ways of our own, and then promote students' growing, teacher's professional development and social harmony and progress.

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