



Teaching training among rural and urban in-service teachers in central China

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Abstract

This study utilizes semi-structured interviews to explore the status quo of teacher training of rural and urban public primary school teachers in Henan Province China. Our findings showed that both rural and urban teachers had very limited training opportunities available to them. Most of the participants did not find the current training opportunities useful in improving their teaching practices. Both rural and urban teachers desired training in pedagogy, educational psychology, and curriculum. Rural teachers particularly expressed the need for training in ICT and classroom management skills. Observing education experts' demonstration classes is the most preferred training format. Policy implications are discussed.

Keywords Teacher training · Effective teacher training practices · Rural and urban primary school teachers · Context-relevant teacher training

1 Introduction

The disparity in teacher quality is a significant contributing factor to the large rural–urban divide in educational achievement in China (Yue et al., 2018; Chu et al., 2015; Wang & Li, 2009; Xue & Li, 2017; Zhao et al., 2017). To address this gap, in recent decades, China's government has put great emphasis on implementing programs and initiatives to improve the quality of rural teaching, including the Urban–Rural Teacher Exchange System and the National Teacher Training Program (NTTP) (An, 2018; Lu et al., 2019; Du, 2019; Loyalka et al., 2018). Between 2010 and 2019, China's government invested approximately 2.6 billion USD in teacher training (Liu et al., 2016; Ministry of Education, 2020; Yan et al., 2013), and the Ministry of Education (2020) claims that the NTTP covers all teachers in remote, rural areas.

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Unfortunately, despite the training opportunities offered to teachers in rural areas, recent studies have consistently shown that there has been little or no impact of these training initiatives on improving teacher instructional practices or rural student academic performance (Lu et al., 2019; Loyalka et al., 2018; Teng, 2020). Little research, however, has looked into the causes of teacher training initiatives' not having been effective in improving the educational environment in rural schools.

The purpose of this study is to address this gap in the literature by seeking to understand the factors that can lead to the unsatisfying outcomes of China's current teacher training initiatives. To this end, we have three objectives. First, we explore the teacher training opportunities currently available to rural and urban teachers and examine the differences and similarities among rural and urban teachers in terms of access to these opportunities. Second, we explore the perceptions and opinions of teachers regarding how effective and useful the trainings are in improving their instructional practices. Finally, we determine the needs of teachers for effective and useful teacher training practices in areas of training content, format, timing, and so forth. As China's government is paying increasing attention to the development of rural education, listening to the voices of the frontline teachers and understanding firsthand the reality of current teacher training practices are critical for informing future educational reforms.

To achieve these objectives, we adopt a qualitative approach, using in-depth interviews to explore the experiences of rural and urban teachers with teacher training practices. Our participants are rural and urban public primary school teachers in Henan Province, China. We chose teachers from public primary schools because primary school is a fundamental part of compulsory education (Grades 1–9) in China. Studies have shown that students' early academic performance and achievement in primary school is a significant predictor of future educational success (Li & Qiu, 2018; Organisation for Economic Co-operation and Development [OECD], 2018; Rabiner et al., 2016). We also include urban teachers to compare teacher training between the two groups. In total, we interviewed 30 rural teachers and 14 urban teachers. The concepts of "teacher training" and "professional development" for teachers are used interchangeably in the literature when referring to training in-service teachers. In this article, we use the term "teacher training" (*jiaoshi peixun*) to refer to training for in-service teachers, as it connects closely with the context of Chinese education, whereas "professional development" is a more widely used concept in the Western context (Knight et al., 2014).

We utilize the following research questions to guide our research:

1. What teacher training opportunities are available to public rural and urban primary school teachers in China? To what extent are there differences in the training opportunities available to the rural and urban teachers?
2. What are the perceptions of rural and urban teachers regarding the usefulness of the current training opportunities offered to them?
3. What are the needs of teachers for effective and useful teacher training?
 - a. What type of training do they need?
 - b. What is the best format for teacher training sessions?
 - c. What are the preferred times for the teacher training sessions?

2 Literature review

2.1 Teacher training and teacher quality

Research has suggested that teacher quality is closely associated with student academic performance (Chu et al., 2015; Darling-Hammond, 2000; Liu et al., 2016; Rivkin et al., 2005). Providing effective teacher training for in-service teachers is critical to maintaining a teaching force with the most advanced pedagogies and instructional technology that will help teachers to advance student achievement (Blandford, 2000; Ciraso, 2012; Guskey, 2002; Nir & Bogler, 2008). In areas where the significant disparity in teacher quality exists between privileged and underprivileged groups, improving the quality of the teaching force of disadvantaged groups becomes crucial in narrowing the gap in educational resources and educational attainment (Darling-Hammond, 1997, 2003; Nir & Bogler, 2008; Palomino, 2017). Educational policymakers and international development agencies have turned to train in-service teachers to improve teacher quality in areas where the quality of the teaching force is lower or in locations that are considered less attractive destinations for quality teachers (Liu et al., 2016; Rivkin et al., 2005; Yan, 2009; Yoon et al., 2007).

In China, the deep rural–urban divide in student educational attainment is one of the fundamental sources of educational inequality in the country (Cheng, 2009; Gong & Li, 2013; Lei & Shen, 2015). There are many factors that contribute to this rural–urban achievement gap, such as the increasing income disparity between rural and urban residents and systematic funding inequality between rural and urban schools (Fang & Ying, 2010; Jiang, 2019; National Bureau of Statistics of China, 2011). The disparity in teacher quality among rural and urban teachers is one of the most important contributors to the rural–urban educational divide (An, 2018; Wang & Li, 2009). An empirical study conducted in western China showed that less than 15% of the rural primary school teachers hold an associate or bachelor's degree, while the percentage of urban primary school teachers who hold an associate's degree and above was over 50% (Wang & Li, 2009). Moreover, although at various times and places, there are more qualified rural teachers in rural schools, when given the opportunity, such individuals often choose to move to urban areas and apply for teaching positions that they believe have better working conditions and higher salaries (Wang et al., 2021; An, 2018; Li et al., 2020; Yan, 2018). Wang and Li (2017) found that, among the 10,356 rural teachers who were surveyed in Yunan Province, China, almost 80% expressed the intention or willingness to move to urban schools to work. Rural China's teacher shortage and the lower quality of its teachers have been shown empirically to have an impact on the development of rural education (Cai, 2008; Li et al., 2020; Wang & Li, 2009).

To address the rural and urban divide and improve rural education, the government has implemented a series of policies to improve rural education by upgrading the working conditions in rural schools and providing training to rural teachers (Han et al., 2017; Ministry of Education, 2012; OECD, 2016). One such effort is the national campaign to provide teacher training for primary and middle school teachers through the National Teacher Training Program (NTTP), which was launched in 2010 by the central government (Ministry of Education & Ministry of Finance, 2010). The key target of the NTTP is to improve the quality of the country's teaching force in compulsory education (Grades 1–9), with a particular focus on raising the quality of rural teachers, leading to higher academic performance of their students (Ministry of Education, 2012; Ministry of Education & Ministry of Finance, 2010). The Ministry of Education requires all teacher training programs to focus

on teaching ethics (10%), subject knowledge (40%) and pedagogy (50%; Lu et al., 2019; Ministry of Education, 2011, 2012).

2.2 The system of teacher training in China

Teacher training in China at the K–12 level is designed as a pyramid system, with the Ministry of Education at the top of the pyramid, controlling the overall policies, funding, and program requirements related to teacher training (Yan, 2009). The provincial-level Department of Education is in charge of implementing, coordinating, and monitoring the teacher training programs in each province, while the training divisions of each county's education bureau deliver most of the teacher training programs (Yan, 2009). One study showed that over 80% of Chinese teachers had received teacher training during 2010–2013, although the form and intensity of the experiences varied (Liu et al., 2016). The most high-profile teacher training program is the NTTP, which provides a majority of the teacher training hours in the teacher training system in China (Liu et al., 2016; Ministry of Education, 2020).

The major goal of the NTTP is to improve the quality of rural teachers (Lu et al., 2019; Ministry of Education & Ministry of Finance, 2010). The NTTP is delivered in-person and online (Liu et al., 2016; Lu et al., 2019; Ministry of Education & Ministry of Finance, 2010). In 2013, the NTTP provided an average of 33 teacher training hours per teacher for rural teachers (Liu et al., 2016). By 2020, more than 16.8 million teachers had participated in teacher training through the NTTP, of whom over 96% were rural teachers (Ministry of Education, 2020).

Despite the heavy investment and policy emphasis on training rural teachers and improving rural education, rural students have continued to fall behind their urban counterparts even after the launch of the NTTP (Loyalka et al., 2018; Lu et al., 2019; Ma et al., 2018). Research has shown that, although the NTTP training increased the subject knowledge of teachers, it has had no significant impact on either their instructional practices in the classroom or the academic performance of their students (Loyalka et al., 2018; Lu et al., 2019). Other studies revealed that training materials and approaches (especially when delivered online) have not been able to provide teachers with useful knowledge or skills to make effective changes in the classroom (Liu et al., 2016; Yan et al., 2013). For example, one randomized controlled study, conducted in Western China, showed that the academic achievement of students whose teachers were randomly chosen to receive teacher training was actually negatively affected compared to the group of students whose teachers did not participate in teacher training (Lu et al., 2019). The authors explained that the negative impact was possibly due to the interruption in instructional time, as the students missed their normal instructional time while their teachers attended training for a significant period of time during the school year (Lu et al., 2019).

Given the poor record of teacher training outcomes in rural China, scholars have suggested that, to identify the sources of the unsatisfying teacher training outcomes, qualitative research that attempts to understand the realities and status of current teacher training programs is needed (Deng, 2020; Liu et al., 2016). Loyalka et al. (2018) collected qualitative data in conjunction with a randomized controlled trial that evaluated the NTTP between 2016 and 2017 and found that the main reasons that the NTTP did not help to improve teacher instructional practices and student achievement were that the training content was too theory-driven for teachers to apply in their classrooms, and the training format was too passive and did not motivate or engage teachers during training. Although this previous

effort is useful, there is still an absence of qualitative work that gives voice to the frontline rural teachers as a way to understand the challenges that rural teachers face in regard to teacher training. Such work is needed to better understand what teachers believe are their needs for quality and effective training.

This study attempts to address this research gap by utilizing in-depth, semi-structured interviews with rural primary school teachers in a set of rural counties located in central China. The study presents the findings of the interviews with rural teachers in regard to their access to teacher training, their perceptions of the effectiveness of current training programs, and what they believe more effective training would look like. To examine whether the findings are particular to rural teachers—or whether these findings are more general to teaching in China—we also included urban teachers in our sample to compare rural and urban teachers' interview responses.

3 Methods

3.1 Sampling and data collection

Our sample includes public elementary school teachers from three predominantly rural counties located in Henan Province, China. Participants were identified using snowball and purposive sampling. The participants were first referred to the research team through the personal connections of the first author. These initial participants then recommended their colleagues or friends, who also were teachers, to participate in the study, which led to our final sample. The criterion used for referrals was that the teacher needed to be a public primary school teacher in a village, township, or urban school. The research team worked to ensure variation in age and gender among the participants.

Semi-structured interviews were conducted to explore teacher training opportunities available to the teachers, their opinions on the effectiveness of these trainings, and what they believed a more effective training program would look like. The interview protocol was designed with open-ended questions that served as a guide for the researcher to facilitate an open and semi-structured dialog, while opening the conversation for participants to share their stories freely (Jacob & Furgerson, 2012). The first author, a native Mandarin Chinese speaker, conducted the interviews in Mandarin Chinese while accompanied by two research assistants, who were both native Mandarin speakers as well. Interviews were audio-recorded with full consent from participants. We interviewed 30 rural teachers and 14 urban teachers from a total of 22 public elementary schools. The duration of the interviews ranged from an hour to an hour and thirty minutes.

3.2 Data analysis

The analysis of the data proceeded according to a strict predefined protocol. The interview recordings were transcribed by the first author and three research assistants, who were all native Mandarin speakers. The transcription team cross-checked each other's work to ensure the accuracy of the transcripts. After the transcripts were finalized, the first author, the main analyst, uploaded all transcripts into NVivo, a qualitative coding software, for analysis. The transcripts were kept in the original interview language of Mandarin to prevent the loss of cultural nuance during translation and to respect the original voices of the participants (Adom & Asare-Yeboah, 2016; Brazill, 2016; Koro-Ljungberg, 2010; Shi,

2019). Select quotes presented in the Results section were translated into English, also by the first author.

Our data analysis took an inductive approach. The first cycle of coding started with opening coding that used mainly descriptive codes chosen to represent segments of the data (Miles et al., 2014; Shank, 2001). We created case classifications for rural and urban teachers to make thematic comparisons more feasible and explicit. During the second cycle of coding, the codebook was reexamined and revised, while the research team started to identify themes and patterns and explore relationships among the themes. To ensure transparency and enhance the validity and trustworthiness of the findings, memo writing was utilized throughout the data collection and analysis processes to record reflections and analytical thoughts (Allen et al., 2019; Goodall, 2000; Nolen & Tallbert, 2011; Saldana, 2015). We utilized member checking at multiple points during the data analysis stage, and we reached out to several teacher participants to check and clarify the accuracy of our interpretations of the data (Miles et al., 2014).

4 Results

The results are organized by our research questions. We first report on the training opportunities that were available to rural and urban teachers. We then discuss the similarities and differences between rural and urban teachers in regard to how often they were able to attend training. We then present the perceptions of teachers regarding the usefulness or relevance of the training available to them. Finally, we discuss the perceived needs of the teachers for effective training, including insights into what types of training they believe that they need, their opinions regarding the best format by which the training should be delivered, and the times that would be optimal for holding the trainings.

4.1 Available teacher training opportunities

Based on our interviews, there are different types of training opportunities available to rural and urban teachers at the national, provincial, and local levels. Some opportunities are accessible only to rural teachers, while others were able to be accessed only by urban teachers. Some of the training programs enrolled both rural and urban teachers. Table 1 provides a list of the available teacher training opportunities reported by the teachers.

At the national level, a portion of the rural and urban teacher participants were able to attend the NTTP. Despite the NTTP's high profile, it constituted only 8% of the available teacher training opportunities for rural and urban teachers. This result is surprising, as the NTTP is targeted to train rural teachers, and previous research shows that it constituted a majority of the training hours for rural teachers (Liu et al., 2016).

When we asked rural teachers about the difficulty of becoming enrolled in the NTTP program, one rural teacher provided a potential explanation:

It is not that you can just go if you want to. In our district, they [the officials in the township school district office] only recommend one teacher per subject in the entire township to attend the NTTP each year. (Rural teacher SQMQT5)

This rural teacher's response indicated that, at least in this part of the research site (Henan Province), there was a quota to attend the NTTP, and, as such, the absence of sufficient positions prevented many teachers, particularly rural teachers, from attending the NTTP.

Table 1 Training available to rural and urban teachers

Training level	Rural (%)	Urban (%)
National		
National teacher training program	8	8
Provincial		
Continuing education	35	31
Teacher exchange program	0	8
Local		
Premium class observation	38	16
Training for homeroom teachers	8	0
<i>Xia xiang song ke</i>	4	0
Training in writing	4	0
Training in educational psychology	4	0
Training in the new curriculum	4	8
Training in subject knowledge	0	8

With regard to programs offered by the Provincial Department of Education, the “Continuing Education” teacher training program is the most common type of teacher training for rural and urban teachers (35% for rural and 31% for urban). Continuing Education is a teacher training program that offers a completion certificate. According to the interviews, this program is mandatory, as teachers are required to renew their certificate every three years, and it is an essential part of the province’s teacher professional rank promotion protocol. The content of the Continuing Education program includes training in teaching ethics, government guidelines and policy, and so forth. Some teachers mentioned that, sometimes, these trainings are offered online.

Another type of provincial level-teacher training program is the “Teacher Exchange” program, which was mentioned only by urban teachers. The Teacher Exchange program operates as a partnership between an urban school and a local university. As part of the program, the partner university sends several college students to their schools for informal apprenticeships. In return, the school is allowed to select several teachers to participate in pedagogical training at the university for an extended period of time (usually three months). When asked about the frequency of such programs, three of the study’s urban teacher-interviewees stated clearly that these opportunities were rare, and they had not heard of any of such exchange opportunities in the past few years.

There are also various types of teacher training programs that are offered at the local level, from the county/city department of education, township school district, or within the school itself. At the county/city level, the “Premium Class Observation” program is the most frequently mentioned type of training and accounts for 39% of the training available for rural teachers. Of the urban teachers, 15% stated that they had participated in the program. In the case of rural teachers, the Premium Class Observation program, as the name suggests, is a type of training that brings teachers to a school in which they will be able to observe a demonstration class taught by experienced urban teachers (typically from an urban school in the county seat). In the case of urban teachers, trainees were asked to observe a demonstration class taught by an “Expert Teacher” that was often held in the provincial capital.

In addition to the Premium Class Observation program, there were other local training programs. Two of the rural teachers shared that, occasionally, they attended a “Bring the

Classes to the Countryside” (*Xia Xiang Song Ke*) program. In this program, experienced urban teachers would come to a rural school, teach a demonstration class, and invite teachers at the school to observe. Several other rural teachers mentioned having attended different types of specialized training courses. For example, one teacher had attended a training program for homeroom teachers (which was available mainly for the younger, newer teachers). Another teacher mentioned that she had attended a writing workshop for Chinese Language teachers. One of the urban teachers shared that she once attended a training workshop on math, her teaching subject.

Based on our interviews, at the school level, collaborative lesson planning within the school is common among urban teachers. Teachers who teach the same subject stated that they would sometimes gather together (in some schools, at least once a week) to do lesson planning. Many urban teachers found collaborative lesson planning useful, as they offered each other suggestions, exchanged ideas, and gave each other feedback. Urban teachers pointed out that collaborative lesson planning was useful in improving their lesson plans. In rural schools, the school administration occasionally organized teachers to observe the classes of their colleagues within the school and to provide feedback to each other with the intention of helping each other improve instructional approaches and other aspects of teaching.

4.2 Frequency of teacher training attendance

When asked how often they attend training, the typical response from both rural and urban teachers was, “There were very few opportunities.” One rural teacher noted, “I have not attended any training in many years” (Rural teacher SQMQT1). An urban teacher made a similar statement, “I cannot remember the last time I attended training” (Urban teacher SQMQC2). In particular, several older teachers expressed that priority was given to younger teachers to attend teacher training. “Older teachers like me do not have any training opportunities anymore; they are only reserved for younger teachers” (Rural teacher SQNLV2).

In terms of eligibility to participate in teacher training, most rural teachers mentioned that it is usually the school principal who decides who can attend the training. Many rural teachers mentioned that it is usually the teacher who had won some type of teaching award who was selected to attend training. As one rural teacher stated:

We [rural teachers] usually cannot access [these training opportunities]. To put it bluntly, it is those “*you tou you lian de*” (important and famous) teachers, such as the key teachers or teachers of excellence, that are selected to attend training. (Rural teacher SQMQV13)

Similar to rural schools, the selection of training participants in urban schools for training seems to be in the sole purview of the school principal. There appears to be general consensus among the urban teacher participants that the school principal selects the candidates to attend training based on a number of factors: teacher availability, willingness to participate, and relevance of a training subject. Clearly, there are differences in the way that principals appear to select teachers in urban schools compared to rural schools.

In summary, in addition to mandatory training, there are few other training opportunities available for rural and urban teachers, and there is almost no observable rural–urban difference in access to teacher training opportunities. Despite the scarcity of training opportunities available for rural and urban teachers, the quota for teacher training means that

most teachers do not have a high probability of attending. Due to this dynamic, our second research question appears to be even more relevant: What are the perceptions of rural and urban teachers regarding the usefulness of the current training opportunities offered to them?

4.3 Usefulness of current training opportunities

Although, as noted above, there are not many opportunities to participate in teacher training, our interview findings show that there is even a smaller portion of teachers who find the existing training useful or relevant to their classroom instruction. This is true for both rural and urban teachers, although there is a larger percentage of rural teachers (27%) who find the current training opportunities useful compared with urban teachers (15%; Table 2). The general consensus of all teachers regarding the usefulness of attending training for rural teachers is that, although at times some of the sessions are useful, they usually are not. The lack of usefulness is based on three factors: The training is not applicable to their own classrooms due to the differences in context; the pedagogical approaches taught at the training are not applicable for the types of students in their schools; and the approaches and ideas that the training promoted utilized technology and resources that are not available in the trainees' schools (especially in most rural schools).

One example that reflects the common perception that teacher training is not useful is from a rural teacher who explained why she was not able to apply what she had learned from observing a Premium Class taught by an urban teacher:

[We] do not have the necessary equipment like they [the urban teachers] do. This school is just a small village school; [all we have is] a chalkboard. [Our rural school district] gives you a textbook and a piece of chalk and says, "go teach." But they [the urban teachers] can present what they want to teach through a projector or other electronic multi-media equipment. When doing so, their students can look at the lesson visually. They also can all see the presentation clearly. Here [in rural schools], everything is just taught by the teacher's mouth. (Rural teacher SQMQV3)

Interestingly, many urban teachers expressed a similar point: "[The content learned at training] is not very relevant to what can be done in an actual classroom; it is neither practical nor useful" (Urban teacher SQMQC15).

Another urban teacher provided an explanation for why she did not find the training useful:

When I was observing the Expert Class, I felt very inspired, and I thought all that they [expert teachers] said made sense. But when I came back to my classroom, I could not use any of the techniques that were taught [during the training]. These demonstration classes are not practical. There is a sense of performing in these [dem-

Table 2 Usefulness of teacher training to rural and urban teachers

Usefulness	Rural (%)	Urban (%)
Helpful but not useful	8	8
Not useful	15	8
Some useful, some not	19	0
Useful	31	15

onstration] classes. I think they [students and teachers] had rehearsed the classes many times before we came. [The demonstration classes] do not look real. In reality, students are not like that. (Urban teacher SQMQC9)

When asked about the usefulness of the mandatory Continuing Education training program, many rural teachers who had taken these trainings replied in one of two ways: “very time-consuming” or “useless.” One rural teacher shared with us her opinion on the Continuing Education training: “What use can it [the Continuing Education Training] be? It is just a requirement for rank promotion. You can’t get promoted if you don’t have the [continuing education] certificate. It is absolutely no use at all!” (Rural Teacher SQMQT1).

There were a few rural teachers, however, who said that they appreciated the opportunity to attend training and found the training useful. One rural teacher shared:

I really like going out (of the villages) to observe Premium Classes. I think it is useful to learn their [urban teachers’] advanced pedagogy, especially given the current trend of curriculum reform. The curriculum now is very different from when I first started teaching, almost 20 years ago. (Rural teacher SQMQT4)

4.4 “How to make this work”

Given that a majority of the teachers did not find the existing teacher training format useful, we asked the teachers how they believed that the training programs could be changed to “make it more useful and relevant.” More specifically, we asked the teachers about their preferred type of training, what format that they believed would be more effective, the most appropriate timing during the school year for teachers to attend training, and any other suggestions they might have to make training more accessible, useful, and relevant for teachers. The following section presents the perspectives of teachers in these areas.

4.5 Preferred training

For rural teachers, the most desirable training content includes programs that teach about pedagogy, information computer technology (ICT), classroom management, the new curriculum, continuing education, and educational psychology (Table 3). It is interesting to note that, despite the fact that many teachers did not find the Continuing Education program useful, a few rural teachers mentioned it as the preferred training program because it was the best way to get systematic training on ethics, curriculum guidelines, and policy. The most preferred training content for urban teachers included training that focused on

Table 3 Preferred training of rural and urban teachers

Preferred training	Rural (%)	Urban (%)
Pedagogy	47	62
Information computer technology	12	0
Classroom management	8	0
Educational psychology	4	12
Continuing education	8	0
New curriculum	8	0
Systematic training	0	8

pedagogy, educational psychology, and some form of systematic training that combined two or more of these topics.

4.5.1 Pedagogy

The most preferred content of training for rural and urban teachers (46% and 54%, respectively) is pedagogy. One rural teacher explained:

I think some training on new pedagogy would be useful. . . . Not on the subject content, but on how to teach and discipline students. . . . I've been teaching for almost 20 years, but I am still teaching like how I was 20 years ago, when I first started teaching, with my mouth and a chalkboard. (Rural teacher SQMQV13)

Urban teachers expressed similar needs to improve their instructional methods and to learn advanced pedagogy that could help them “adapt to the new macro environment instead of sticking to the old ways” (Urban teacher SQMQC6).

Both rural and urban teachers expressed that training in pedagogy should be relevant and applicable to their local context. One urban teacher explained, “The expert teachers are really great in these demonstration classes, but these [the techniques they demonstrated] are not applicable to our students” (Urban teacher SQMQC13).

Rural teachers, in particular, emphasized that the pedagogical approaches that are relevant to the context of rural schools and fit the needs of rural students are urgently needed:

Nowadays, they [education experts] all advocate for teaching styles that inspire [students] instead of the traditional ways that merely seek to “deposit” information into the minds of students. But you can't inspire these [rural] students. I tried to inspire them, but they can't be inspired. A simple example is when I ask them [the students] their thoughts on a class reading. They [responded that they] don't have any thoughts, no thoughts at all. . . . Rural students are just different from urban students; their family environment is different. (Rural teacher SQMQV6)

According to the rural teachers, the demonstration class at the teacher training “Premium Class Observation” looked surreal.

4.5.2 Educational psychology

Training in educational psychology was another common need brought up by both rural and urban teachers. Teachers shared the need to understand the developmental aspects of students to better help them to learn, as especially today, “Students are complex,” and “Every student is different” (Urban teacher SQMQC15). In response to a question about what the training should focus on, an urban teacher elaborated on the need for training in educational psychology:

We can't just teach all the children the same way because every child's personality is different. Nowadays, to be honest, you cannot be too harsh on these children. For example, there are many children from single-parent families. They are different from other regular children. I have to pay more attention when teaching these [single-child family] children. (Urban teacher SQMQC15)

Part of the problem is that there were few resources, especially in rural schools, to help teachers understand the psychological aspects of teaching and of different students. Most

urban teachers in our sample mentioned that they have a counselor in their school, which was not the case in rural schools. A rural teacher stated, “There is a lack of attention to the mental health of primary school students. Teachers need some basic training on development psychology to care for these children” (Rural teacher SQMQV6).

4.5.3 ICT training for rural teachers

For rural teachers, training in ICT is the next most mentioned desired training content, following pedagogy. Rural teachers revealed their need for training in ICT in response to the increasing emphasis on incorporating the use of technology in the classroom. A rural teacher described a common phenomenon among rural teachers in terms of the use of technology in teaching: “Even in the case of the relatively younger teachers, they don’t even know how to download a class PPT from the website; they can’t write a lesson plan on the computer” (Rural teacher SQMQV9). The need for ICT training did not come up among urban teachers, possibly due to the fact that, in urban schools, there is a younger teaching force with higher educational credentials.

4.5.4 Classroom management training for rural teachers

Training in classroom management skills also was mentioned repeatedly among rural teachers when asked about their preferred type of training, although it did not come up in the interviews with urban teachers. Rural teachers referred to “classroom management” as how to “discipline students” and “make them listen.” A rural teacher explained why she thought that training in classroom management is needed:

I don’t know how to discipline students now because I can’t slap their faces or kick their butt, like in the old days. [If I do], parents will sue me. I’d like to attend training on classroom management, how to make the students study hard, improve their test scores, how to have the top-performing students help the behind students and help the students get along with each other. If I could manage the class better, it would be easier [to teach]. (Rural teacher NYFCV3)

This rural teacher’s response represents the common frustration among most of our rural teacher participants and their lack of knowledge of effective classroom management strategies. When the traditional way of using corporal punishment as a tool to discipline and punish students was no longer acceptable, the teachers felt that “[their] hands are tied” and that they “do not know what to do when the students do not listen [to them].” Providing rural teachers with effective training on the appropriate pedagogical approaches in classroom management is crucial to improve the quality of teaching and learning as well as the overall well-being of rural students.

4.6 Preferred training format

In terms of the most effective format of training, most teachers also mentioned that in-person training is preferred over online training. Specifically, observing demonstration classes taught by education experts is the most desired training format by both rural and urban teachers. A few rural teachers mentioned that they prefer “on-site training,” meaning that education experts could come to their school and train teachers on-site, observe the classes of teachers, and provide timely feedback. Teachers believed that, in

this way, the education experts could help them to identify areas of improvement while taking into consideration of the context and “reality” of their students and classroom environment:

Let them [teacher training facilitators] come to our school, bring training to campus and train the teachers. Sending all the teachers [out] for training is not realistic. . . . We are short of teachers to start with; if teachers are all gone [for training], the students are left with no teachers. (Rural teacher SQMQV14)

4.7 Financial and resources support

When asked about ways to make teacher training useful and effective, a few rural teachers mentioned that the government should provide the necessary technology and resource support to match the nature of the resources and technology utilized in the training. A rural school principal elaborated:

[The government] should provide the necessary equipment [computers and projectors] for the school . . . and teach the teachers how to use them. . . . In this way, teachers would get to know how to use it, and students would learn how to use it. . . . [If this would happen, the teachers] could actually use them [the new technologies and teaching ideas] to teach/learn in class. (Rural teacher SQMQV14)

A few rural teachers mentioned that the subsidies that teachers received to attend trainings were not sufficient to cover the costs of attending the training. One rural teacher explained that most teachers are willing to attend training, but,

due to our low salary, some male teachers actually have to work at construction sites and pour concrete (*dian ni*) during the weekend [to make ends meet]. There is no time to attend training, especially if we have to pay out of pocket to cover food, transportation, and lodging to go to training. (Rural teacher SQMQV15)

4.8 Appropriate time for training

There was no consensus about the most appropriate time for teacher training among rural and urban teachers. According to our interviews, most teachers (both rural and urban) expressed the willingness to attend teacher training but pointed out the dilemma of balancing training and their regular teaching responsibilities. When teacher training takes place during the week, they often have to cancel classes and allocate a weekend to make up for the missing time. Some teachers also noted the conflict between attending training and spending time with their family when teacher training programs take place during weekends or holidays. Other teachers stated that they would rather attend training during the week so that they could spend the weekends with their family. A few teachers mentioned that the summer holiday season was the best time to attend training—although, as the most preferred format of training was to observe experts in demonstration classes, there would not be any students in these demonstration classes when school was not in session over the summer. Moreover, summer training attendance also means that there still would be an issue of giving up holiday and family time.

5 Summary and conclusion

This paper concerns the status of teacher training and compares the perspectives and experiences of rural and urban teachers in Henan Province, China. In the most general sense, the qualitative interviews found that rural and urban teachers had very limited training opportunities available to them. When they did receive training, a majority of the participants did not find the current training opportunities useful or relevant in improving their teaching practices. Most of our teacher participants expressed a willingness to attend training, but they experienced a dilemma related to teaching schedule conflicts and financial/family time constraints.

We asked the teachers about their most desired training content and the most appropriate format for teacher training programs. Both rural and urban teachers desired training content mostly in pedagogy, particularly pedagogy related to local context, educational psychology, and systematic training on the curriculum related to the subject that they are currently teaching. Rural teachers particularly expressed the need for training in ICT and classroom management skills. In terms of training format, observing a demonstration class taught by education experts is the most preferred format of training by rural and urban teachers. Rural teachers also mentioned that they would like to have on-site training, specifically to have training facilitators come to their school, observe their classes, and offer timely feedback for improvement, taking into consideration the reality and context of the students.

These findings have significant policy implications. Because the government is investing heavily in terms of money and time to train teachers, but receiving almost no positive outcomes, it is crucial to listen to the voices of the teachers. First, teacher training should consider including a systematic training curriculum for teachers that covers pedagogical theories and practices that are relevant to the context of the trainees, taking into account the resources of the schools in which they teach as well as the needs of their students. This program also should provide some fundamental concepts in educational psychology for teachers to use in offering more effective instruction for their students.

Second, given the overload of teacher duties during school days, we recommend that the government and local school districts set up specific Teacher Training Days in which teachers are free of teaching duties and can attend training without worrying about leaving their students behind. The government and local school leadership also should consider increasing the quotas for teacher training so that more teachers are able to attend the much-needed training.

Finally, it is critically important to supply the schools, especially under-resourced rural schools, with the necessary equipment and resources so that teachers can apply the new approaches and practices that they learned during training. The government also should increase the amount of the training subsidies for teachers to cover the costs associated with participating in training.

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Declarations

Conflict of interest Not Applicable.

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