

Teacher Support and Service System: A case of UNICEF-MOE cooperation project in China



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for Rural Education



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Teacher Support and Service System: A case of UNICEF-MOE cooperation project in China¹

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1.0 Background

1.1 The New National Curriculum

With the passage of decades, China has made rapid development of education infrastructure and schooling access, even in the remote rural areas is it no longer a tough challenge, especially with the support of National Scheme on Compulsory Education for Poor Areas². In 2006, the net enrolment rate for primary education was 99.27% (MoE, 2007). Though rural areas fell behind in enrolment, the gap is not that big. Then education quality has become a top concern of different layers of government and relevant stakeholders.

When entering the new millennium, the Ministry of Education of P.R.China launched the new national curriculum for 9-year compulsory education, which was piloted first in some areas in 2001 and then scaled up to the whole country in the coming years. To change the strongly teacher dominated classroom in basic education and examination-oriented teaching, the new national curriculum encourages more student-centered teaching and learning approach which is a big challenge for teachers as they themselves have been educated by the rote learning style and the teacher-centered method has dominated Chinese classroom for decades. In general, the New National Curriculum has exerted new and higher expectations on the quality of teachers from primary and junior middle schools.

1.2 Tough Challenges for Rural Teachers

In 2008, the number of rural teachers in primary and middle schools in China is about 8 million, accounting for 70% of the total. They are from 380,000 rural schools and account for 80% of the total schools in China, delivering the teaching for 180 million rural children (Daming FENG, 2008). Many rural schools are small ones with few teachers, poor facilities and resources. In some cases, there is only one teacher and multi-grade teaching is dominant in these schools.

² National Scheme on Compulsory Education for Poor Areas includes 2 phases. Phase 1 (1995-2000): the national government allocated 3.9 billion RMB for the project, of which 2.84 billion was transferred to western areas, covering 852 poverty counties in China, and contributing towards the achievement of universalization of nine compulsory education and eradication of illiteracy, improving the school facilities; Phase 2(2001-2005):the national government allocated 5 billion (with 90% invested in western China) and local government provided 2.63 billion as counterpart, covering 522 poverty counties, benefit 10,663 schools in terms of school facilities procurement, books and materials, providing free textbooks, equipping rural schools with ICT facilities as well as teacher and headteacher training.

Without the professional development of rural teachers, education quality in rural areas will be an unachievable target. According to a survey conducted by the Department of Teacher Education & UNICEF (2009), rural teachers have to face the following various challenges and difficulties in terms of professional development:

- Poorly resourced, especially in small rural schools; in most of the cases, urban schools and big rural schools especially those located in townships are prioritized in resource allocation, thus small rural schools are poorly resourced, not only in the number and qualification of teachers, but also in teaching and learning resources.
- Unbalanced allocation of training chances for teachers; opportunities often go to those senior teachers, and some teachers have never attended any training since their being teachers.
- Teacher training lacks follow-up support and guidance; according to a survey done by Ma and Wang (2009) in China, when asking about the follow-up interaction with the training institutes or trainers, over 90% of the interviewees reported there is no contact.
- Teacher training focus much on theory but little on practice and has low relevance; most of the training is delivered by trainers from higher education institutions and teacher training institutes, who have much theoretical knowledge but little experience in teaching practice in primary and secondary schools, let alone the felt needs of the teachers.
- Teachers are passive learners (receivers) and they don't have a say in the training content and training methods. In many cases, the training programmes and modules are developed by external experts and trainers, without consulting the teachers. Also, most of the training are delivered in large-size classes and dominated by lectures which lack interactions and the participation of trainees.

In 2007, the Ministry of Education of China formulated its 11th Five-Year National Plan for Education Development. Training for and professional development of rural teachers has been listed as one of the top priorities. It plans to train 50% of the rural teachers from central and western China and provides timely and relevant support to the teachers' professional development by 2010. The plan also attaches importance of training for teachers from ethnic minority areas on bilingual teaching (MOE, 2007).

1.3 MoE-UNICEF Cooperation(2006-2011)

Starting its support to education development in China from 1980, UNICEF has completed several rounds (5 years for each round) of cooperation and established close partnership with the Ministry of Education. In order to support the priorities and concerns of the MoE, the new round of cooperation(2006-2011) targets the provision of quality basic education for disadvantaged groups, e.g. children from less developed western areas, children of ethnic minorities, children of migrant workers as well as out-of-school children, with following areas (Department of Teacher Education & UNICEF, 2010):

- Policy development, planning and monitoring for reducing education development gap;
- Early childhood development;
- Child friendly school (CFS) and learning quality; and
- Non-formal education.

Under the theme of Child Friendly School and learning quality, a project favoring the establishment of support and service system for rural teachers' professional development has been designed and launched. The new cooperation project on teacher training initiated by the Department of Teacher Education of MoE and UNICEF was decided to focus on building teacher support and service system at the county level, based on teachers' needs and the idea of child friendly school (the focus of the cooperation project for the previous cycle of cooperation), aiming at promoting rural teachers' professional development and ultimately enhancing the quality of education for rural children through teacher learning resource centers, participatory training, mentoring service and school based training, etc. The project covers 8 counties/districts from 7 provinces/autonomous regions in western China, including Gansu, Ningxia, Guangxi, Sichuan, Guizhou, Yunnan and Xinjiang.

2.0 Piloting of Teacher Support and Service System

2.1 Field Survey and Needs Analysis

The project didn't intend to construct a completely new system but planned to expand the functions of current systems and institutions and then make them work effectively towards the continuous professional development of teachers, especially rural teachers who are poorly resourced and supported. In 2006, a field survey and needs analysis were done to better design the mechanism, covering the following aspects:

- Teacher training system, models, management and quality assurance;
- Quality and content of training for rural teachers;
- Teacher training institutions at county level and the use of ICT and long distance education facilities as well as other resources in primary and middle schools;
- Case studies of school-based training;
- Innovative models of teaching by rural teachers; and
- Teacher training on bilingual teaching in ethnic minority group regions.

2.2 A Study Tour to Romania

In order to learn from best practices from other countries, a study tour for the project managers and technical support team (altogether 13 members) was organized with the facilitation of UNICEF in October 2007 to visit Romania to learn about school-based Teachers' Professional Development (SBTPD) which is the sub-project of Rural Education Project (REP) supported by the World Bank. The visit focused very much on how the mentoring system was run in Romania in order to introduce the Romanian experiences into China. A comprehensive report on mentoring system in Romania was written and disseminated among the stakeholders of the Teacher Support and Service Project.

In Romania, the aim of the school-based teachers' professional development sub-component, further called 'the mentoring programme', was to improve teaching and learning

in rural schools by improving rural teachers' abilities, skills and knowledge particularly in the areas of new pedagogical approaches, classroom management and information and communication technologies.

The characteristics of this new approach for rural teachers' continuing professional development (CPD) can be summarized as follows (Sandi, 2012):

- The training was delivered by mentors instead of being provided by trainers in centrally located training institutions;
- Mentors would travel to rural schools to give training to teachers, instead of requesting all teachers to travel to a centrally located institution to get trained;
- Mentors' access to a solid car, which could travel long distance on difficult roads and in any season, was a key factor in the success of the approach; and
- Mentors also used a different training approach than the one used by conventional trainers. Mentors didn't lecture; they guided. Teachers were actively engaged in finding solutions to challenges identified in classrooms.

One of the most important features of the mentoring programme was the procurement by the project of robust cars, which were given to mentors. This enabled them to reach remote areas and also gave them independence from the fixed schedules and routes of public transportation. In addition, each mentor received a mobile phone to allow permanent contact with experts and management. Training equipment (laptops, video projectors, flipcharts etc.) as well as training materials, were also provided and transported to isolated schools.

463 fixed resource centers were also established in schools that became hub schools in rural areas. These centers received equipment (computer, video and TV station, overhead projector, projection screen, copy machine, printer) and supplies (paper, toner cartridges for printers and copiers etc.) as well as training materials .

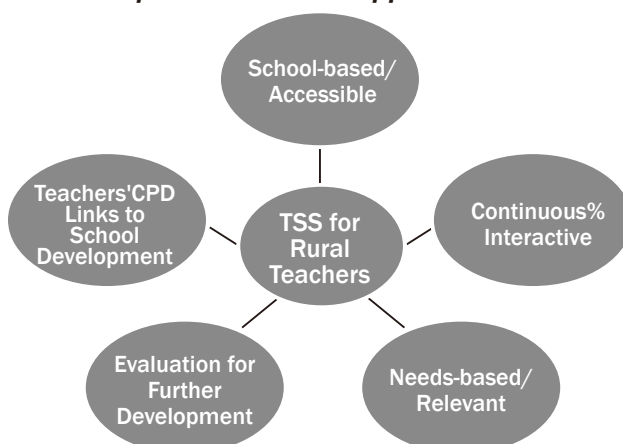
2.3 What is the Teacher Support and Service System Like?

Further to the field survey in 2006 and the study tour to Romania in 2007, the project team has worked out the framework of teacher support and service system. Considering the

problems and challenges of teacher training identified in the field survey and needs analysis, coming as (1) training organized far away from teachers' working place; (2) training cannot solve teachers' practical problems; (3) lack of communication; (4) no teachers' voice in training model; (5) lack of support after training; (6) less monitoring based on children's development; (7) Unbalanced distribution of training resources, the project has formulated key principles for the construction of teacher support and service system coming as:

- School based and easy for access: the support and resources provided are easy for access for every teacher and take efforts to create a supportive environment for teachers' professional development in schools;
- Continuous and interactive: the training and support should not be a one-off event but continuous and enhance the communication and interaction among trainers, mentors and peer teachers;
- Needs-driven: the support to the teachers should be relevant to the actual situations and felt needs of the teachers, e.g. teachers' needs on multi-grade teaching method, big-size class teaching, bilingual teaching, etc.
- Monitoring the effects on children's development: without children's development and education quality improvement, education means nothing. Thus the project targets the professional development of teachers through various supports and ultimately targets the development of children; and
- Equitable and balanced: the support will target all the teachers equally, prioritizing those disadvantaged teachers who get little training opportunities, resources and support in the past, to make sure that every child can have quality teachers (Department of Teacher Education & UNICEF, 2010).

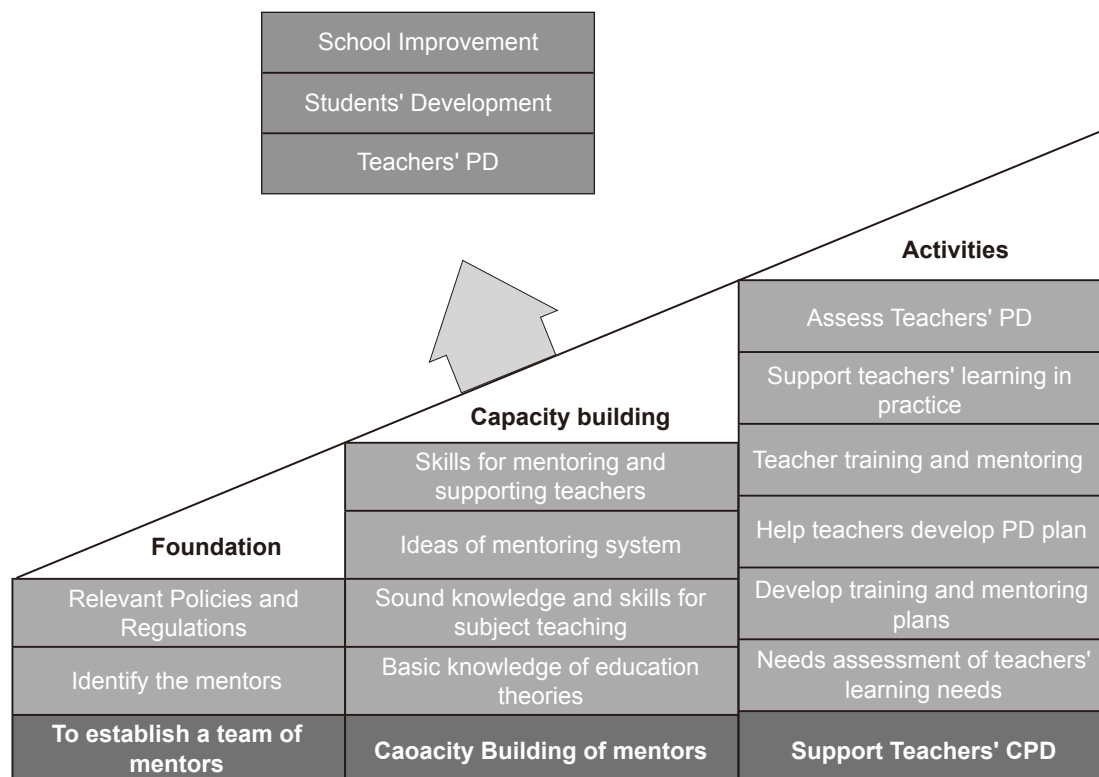
Figure 1: Principles of Teacher Support and Service System



2.4 The Function of the Teacher Support and Service System

The working of the system started from the selection of a core team of mentors as well as the formulation of relevant policies and regulation for the mechanism running, followed by the capacity building of mentors, and then assigning the mentors to different schools to provide needs-based support, with the objectives of teachers' professional development, students development as well as school improvement, as showed in figure 2. The vision for the project is: every child has good teachers; every teacher receives relevant support for their professional development; and every school becomes a base for teachers' professional development.

Figure 2: The Running Mechanism of the Teacher Support and Service System



The mentors were selected from local teacher trainers of County Teacher Training School, teaching researchers from County Teaching Research Office as well as senior teachers from primary and middle schools. Each mentor should match following agreed-upon criteria: (1) healthy, dedicated and responsible; (2) aged between 30-45, but exceptional for excellent candidates; (3) having a bachelor degree; (4) with 5-10 years of teaching experiences; (5) having experience of teacher training and ability to organize participatory training; (6) skillful in communication and coordination; (8) strong capacity in oral expression as well as writing; (9) can work as trainer or mentor fulltime in the coming year; (10) have the basic knowledge of pedagogy and psychology, and understand adult learning theories.

Table 1: The Number of Mentors for the Piloting

County/District	Number of Pilot Schools	Number of Mentors	Number of Targeting Teachers
Yongping County Yunnan Province	2	20	80
Yinjiang County Guizhou Province	2	24	78
Kongtong Dostrict Gansu Province	2	40	60
Yuanzhou District Ningxia Autonomous Region	3	20	68
Shufu County Xinjiang Autonomous Region	3	20	50
Longlin County Guangxi Autonomous Region	4	20	230
Sanjiang County Guangxi Autonomous Region	2	20	50
Cangxi County Sichuan Province	2	30	113
In total	20	194	729

The quality of the mentors plays a decisive role in the running of the mentoring system. Therefore, the project offered several rounds of training for the mentors and the trainers are mainly the national and provincial trainers. The capacity building of mentors focuses on issues coming as, basic knowledge of education theories, knowledge and skills for subject

teaching, ideas of mentoring system, practical skills for mentoring and supporting teachers. In many cases, the capacity building of the mentors happens in the practice when they pay visits to schools, especially when the provincial or national experts visit their counties. Also, a mechanism of sharing and exchange among the mentors has been introduced to encourage the peer support among them.

After having received initial training, the mentors were then assigned to different schools to provide mentoring and support to the teachers, in many cases with mentors from different subjects formulating one team and visiting a school together. In some counties, a group of mentors were mandated to support a certain number of schools in order to build partnership between the mentors and teachers, with their long-term interaction.

To fulfill his/her responsibilities, each mentor should follow following the steps of work, (1) needs assessment of teachers' professional development through classroom observation, profile and document review, and discussion with teachers; (2) develop training and mentoring plans; (3) help teachers develop professional development plans; (4) conduct teacher conduct training and mentoring; (5) On-site support to the teachers' learning through demonstration lessons, lectures, classroom observation and feedback, school based teaching research and training, or using internet platform to enhance the mutual exchanges; and (6) support teachers' reflection and assess teachers' professional development. Also, as local agents for change, the mentors are also mandated to take the role of good case collection and documentation, summarizing experiences and formulating best practices relevant to the local context.

In practice, each mentor should look after 3-4 schools and allocate 8 working days for each school assigned to him/her in one school semester, and the mentor can stay 1-2 days for each visit, often with one week between two visits.

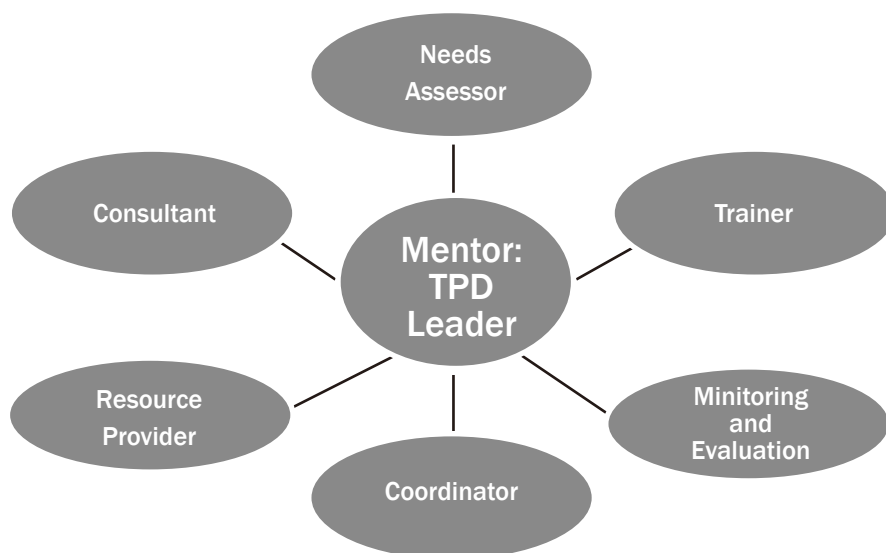
2.5 The Role of Mentors

Mentors are essential for the running of the County Teacher Support and Service System. They are mandated to provide teachers with continuous, interactive and effective support and services. They are leaders for teachers' professional development, with specifically following

roles to support teachers (Department of Teacher Education & UNICEF, 2010).

- Needs Assessor: To help and support teachers to analyze the problems and needs for their professional development and offer relevant suggestions;
- Trainer: provide relevant training and individualized mentoring targeting the needs of teachers;
- Monitoring and Evaluation: to continuously monitor the teachers' professional development and make the evaluation;
- Coordinator: to bridge the headteacher and teachers, build links among teachers from different schools, facilitate the communication among project management office, teacher training agency, ICT department as well as communities, and establish a strong support team. Also, the mentors play a key role in learning community building among teachers;
- Resource Provider: to recommend relevant resources for teachers' professional development and raise their awareness of obtaining resources independently or develop their own teaching resources;
- Consultant: to share with the teachers his/her own experiences and offer consultancy to teachers' professional development.

Figure 3: Roles of Mentors for Teacher Support and Service System



With several years' of piloting and expansion, the MoE-UNICEF cooperation project has formulated a localized mentoring system and it is much welcome by rural teachers. The system has integrated teacher training, school-based training, individual study as well as other professional development activities through the visits (including needs analysis, school visit and support, monitoring and evaluation, establishing portfolios of teacher professional development) of the mentors, making professional support and resources easy for access to the teachers.

2.6 The Development of Resource Pack

As a new mechanism to support teachers' continuing professional development, mentoring system differs a lot from traditional teacher training in many aspects. In addition, in many occasions, rural teachers are poorly resourced and supported to implement the new national curriculum. Thus, the project strongly supported the development of a resource pack, covering many issues related to teacher training and mentoring, tips for classroom teaching, etc. The mentors can use the resource pack for their on-site support to the teachers and the teachers can use it for their independent studies.

Table 2: List of Resources Developed for the Running of the System

Category	Document/module
Survey and International Experiences	Baseline Survey Report on Teacher Support and Service System
	Mentoring System in Romania: A New Approach for Rural Teachers' Professional Development
Project Documents	Guidelines for Project Counties to Establish Teacher Support and Service System
	Manual for the Implementation of Teacher Support and Service System Monitoring and Evaluation of Mentors for Teacher Support and Service System
Reference Materials for Mentors	Training Manual for Teachers in Child Friendly Schools (Translated into 4 ethnic languages)
	Q and A for Mentoring System
	Manual for Trainers
	Resource Pack for Trainers: Toolkit for Participatory Teacher Training
Reference Materials for Teachers	Know Your Students
	Effective Classroom Teaching
	Create an Environment Fit for Children
Others	Make Every Child Have Quality Teachers-Project booklet

In addition, a series of tools and forms have been developed, covering different tasks of mentors' work such as needs assessment, classroom observation, portfolio for teachers' professional development, plan for teachers' professional development, etc. Also, in order to facilitate the mentors' reflective learning, a portfolio has been set for each mentor, to keep the mentors' reflections, working diary, school visit reports, working plans, good cases, self-evaluation forms and other relevant materials. Furthermore, other resources like digital camera, video camera, projector and digital voice recorder have been purchased by the County Teacher Learning Resource Centre (please refer to the part 2.7) and the mentors can make use of them for their mentoring and support.

2.7 Teacher Learning Resource Centres

Teacher resource centres (TRCs) were created to help rural teachers combat isolation by allowing them to come together to exchange ideas and experiences with other teachers and to work on their own professional development. The original teacher centres in the United Kingdom were places where teachers from surrounding schools could meet and discuss with one another, work on curricula, develop materials, but most of all, to develop their personal knowledge and skills. Teacher resource centres are used for delivery of professional development activities such as in-service training, and to support teachers in their work in the classroom. TRCs have also been called teacher activity centres, teacher advisory centres, teacher support groups, mircocentros, teacher circles, etc. A teacher resource centre is a strategy rather than a building (Giordano, 2008).

Before the project launched, the project counties have already established institutions like Teaching Research Office of County Education Bureau, School for Teachers' Continuing Education and Centre for Education Technology, which were mandated to lead the teaching reform and support teachers' development. But the work of the three institutions was not integrated and it has led to the waste of resources. In light of the support system of the new project, the project counties took efforts to establish county and township teacher resource centres, taking advantage of the existing institutions and keeping the idea of resource sharing in mind. In Yuanzhou district of Ningxia Autonomous Region, an internet platform to co-share teaching resources has been constructed and e-blogs were used by teachers to be connected with one another.

2.8 Provincial Technical Support Team

A provincial technical support team with average 5-6 members has been established in each province and was mandated to take following responsibilities:

- To attend the training organized by national technical support team and lead the provincial and county level trainings;
- To participate in and lead the county plans for teacher professional development within the province;
- To participate in the development localized resources and necessary tools;
- To join the baseline survey, field visits, on-site support and final review;
- To monitor the progress and outcomes of the project by a quarter and draft the quarterly report and annual report;
- To collect cases, experiences, pictures and stories of the project.

3.0 Impacts, Outcomes and Sustainability

Compared to the traditional teacher training that took place far away from the teachers' working settings, the practice of mentoring under the teacher support system provides more effective and relevant support to the teachers' professional development.

3.1 Positive Impact on Policies

To ensure the smooth implementation of the project, in 2008 the Department of Teacher Education, Ministry of Education formulated and issued The Guidelines for the Project Counties to Establish Teacher Support and Service System, in light of which the project provinces and counties formulated their own policies and documents. Though the policy is targeting the project counties, it conveys a clear message that the national government is encouraging and supporting more localized initiatives of teacher professional development.

The baseline survey showed that most of the project counties have formulated their teacher training systems with a lack of coordination and integration among relevant institutions. But the final review demonstrated some progress in integrating teacher training resources at county level, with the participation of different institutions, to give professional support to the teachers, coming as the following.

Table 3: Roles of Institutes Related to Teacher Training in Pilot Counties

Institution	Responsibilities
County Education Bureau	<ul style="list-style-type: none"> • To formulate policies and mechanism for teacher support and service system; • To coordinate the input of relevant institutions; • To integrate teacher training resources within the county and establish teacher resource centres; • To establish a team of mentors; • To work out the budget for the work of teacher support and service and allocate the funds; • Assess the professional status of teachers within the county; • Monitor and evaluate the running of teacher support and service system; • Summarize and disseminate the experiences and outcomes of teacher support and service system.
School for Teachers' Continuing Education / Teaching Research Office of County Education Bureau (team of mentors)	<ul style="list-style-type: none"> • To design and plan the teaching research activities within the county; • To organize teaching research, with school-based research as the main strategy; • To provide training for teachers on teaching methods; • To assign teaching researchers to work together with mentors to conduct teaching research activities (teacher professional development activities); • To offer resources for teaching and related research; • To provide consultancy to County Education Bureau on teaching research; • To monitor the construction and running of teacher support and service system.
County Centre for Education Technology	<ul style="list-style-type: none"> • To plan and support the county/township teacher learning and resource centres in education technology; • To regularly maintain the facilities of County/Township teacher learning and resource centres; • To train the technicians of the resource centres; • To provide teachers with internet resources, audio and video resources for their learning; • To provide consultancy to the county education bureau on facility management and maintaining.

3.2 An Established Team of Mentors

A group of local mentors or trainers have been established and their capacity strengthened. According to the overall requirement of the piloting, all the project counties have identified a group of mentors among the senior teachers and local teacher trainers as well as teaching researchers. During the project implementation, the capacity building of the mentors was always the focus of the project. And training for them included participatory teaching, education equity, classroom observation and feedback, the development of local teaching resources, education for left-behind children. With capacity enhanced, the mentors played a more and more important role in teaching reform and are the seeds for future practices.

The data collected from the final review showed that 75.2% of the teachers mentioned “the mentors often communicate with me and help with the teaching”, and in average, each mentor visited the project schools 4.56 times (Department of Teacher Education & UNICEF, 2010). A teacher from a school in Yunnan highly appreciated the demonstration lesson delivered by two of the mentors and she thought the mentors present teaching models for them to follow. Also, she thought the class observation and follow-up feedback done by the mentors helped her a lot (Yunnan Project Management Office, 2010). And below is a quotation from a teacher from Sichuan province.

Box 1: Mentors Made Me Confident

I have been a teacher for 7 years during which I have changed from a new but passionate teacher to a frustrated one who has many challenges in teaching but hesitates to make a change. But the mentors' visit to the school changed me greatly, offering me support through observing my teaching and giving positive feedback. From the mentors, I learned that every pupil has his/her advantage and teachers' smiling to students or positive comments on students may create close teacher-pupil relationship and will contribute to children development.

Resource: Department of Teacher Education & UNICEF , 2010.

3.3 A New Model for Teacher Training Formulated

Based on relevant domestic and international good practices, the project has piloted a new model for rural teachers'CPD, integrating teacher education resources from different organizations like the School for Teachers Continuing Education, Teaching Research Office,

Centre for Education Technology and others. The system is functioning with trained mentors providing needs based and continuous support to teachers. Also, the mentors' work is regularly monitored and evaluated.

The District Education Bureau of Kongtong, Gansu Province made efforts to enhance the institutional building of teacher education. 325,000 Chinese Yuan has been invested by the local government to support the establishment and running of 20 teacher learning and resource centres (with 1 at district level, 18 at township level and 1 at village level) and the centres are responsible for the support to a cluster of schools. Meanwhile, a team of 190 mentors categorized as district, township and village has been built up. Also, relevant regulations have been formulated to ensure the running of the system (Department of Teacher Education & UNICEF, 2010).

In operation, each county has its own unique strategies relevant to local context and institutions. Take Cangxi County of Sichuan Province as an example; it has formulated a 5-step model of mentoring service. Other project provinces like Guangxi and Yunnan have drawn out their own models of mentoring which respectively focus on classroom observation and evaluation as well as teachers' reflections.

Box 2: Five-Step Mentoring in Cangxi County

Step one: Diagnosis by individual mentors

The mentors are assigned to different schools to find out problems and issues through classroom observation, questionnaire, document review, interviewing teachers, students and parents, and work out the plan for improvement.

Step two: Consulting other mentors

For tough issues, a group of mentors will work together to formulate the most relevant working plan based on the individual mentor's own solutions. This may build a supportive culture among the mentors and help enhance the effectiveness of the working plans.

Step three: Support by mentors

The mentors visit the schools with the working plans in hand and help solve the problems and issues through lectures, demonstration, interaction and discussion, resources sharing, etc. The visit to the school is a process of putting the working plan into practice.

Step four: Practice and improvement

Led by the mentors, the teachers implement the working plans according to their own conditions to solve the problems they face in teaching and management. The implementation is a process of capacity building. With practice and reflection over and over again, the teachers' capacity has been enhanced and they can work out their solutions to new problems.

Step five: Continuous follow-up support

The mentors pay continuous visits to the schools, meet and discuss with teachers to provide continuous support, help with teacher when in need, monitor and support the school based teacher professional development activities, and collect information and data for future TPD plans at county level.

3.4 Teachers' Professional Development Enhanced

3.4.1 *The idea of child friendly school accepted and implemented by teachers*

UNICEF has taken child friendly school as its core value that should be implemented in all its education projects in China including the project on teachers' support system. The final review of the project showed that the teachers are more sensitive to the individual learning styles of pupils as well as their needs.

3.4.2 *Teacher learning community and supportive atmosphere for teaching research*

With the support and intervention of mentors, the teachers are more active to exchange with others, which is very supportive for school-based teacher professional development activities and a learning community of the teacher within the same school has been gradually formulated. The final review of the project shows that 90% of teachers states that they can ask for help from their colleagues when confronting challenges, 85.7% of the teachers often share teaching thoughts and experiences with peer teachers, and 60.5% of the teachers work with colleagues in a research project in the latest semester (Department of Teacher Education & UNICEF, 2010). This has built a supportive environment for teachers' professional development.

Box 3: Revitalization of Subject Groups in Schools

Longdong Primary School failed many times in the maths examination of Grade 6 and the school cannot find solutions, which brings about tension between the headteacher and maths teachers. With the intervention of the external mentors, the traditional subject group has been revitalized and an initiative of school based teacher professional development has been launched with classroom observation and feedback, joint design of teaching plan, peer support as well as demonstration lessons by mentors as the main activities.

Sources: Department of Teacher Education & UNICEF, 2010.

A mentor who is also a deputy head teacher of one primary school thinks highly of the impact of mentoring on the collaborative learning within and among cluster schools. He said, “My school assigned 3 senior teachers to form a collaborative team with 6 master teachers from 6 rural schools to support the teaching improvement of rural schools through demonstration lessons, observation and feedback, teaching preparation and so on.” (Department of Teacher Education & UNICEF, 2010). He declared that his school benefited a lot from the new way of professional development.

3.4.3 Teaching skills improved

With continuous support from the mentors, together with the peer support and school based professional development activities, the teachers have improved a lot in teaching skills. A teacher from Ningxia autonomous region said, “students are good resources for teaching and classroom teaching will have more effective outcomes with their active participation” (Department of Teacher Education & UNICEF, 2010).

The data collected from the final review shows that 98.6% of the teachers can apply the new methods learned from training into practice, 99.5% of the teachers can organize group learning activities, 98.6% of the teachers can use participatory approach for teaching and 99.1% of the teachers state that their pupils take active participation in learning activities. Much progress has been achieved compared to the baseline (Department of Teacher Education & UNICEF, 2010).

Box 4: The traditional way of teaching changed

Mr. Wu, a Mandarin teacher from Wulong Primary School in Cangxi County, had his own teaching style for years. Usually he took the following steps for one period:

- Ask the class to sing a song together;*
- Start the class;*
- Ask the students to read aloud the lesson together;*
- Read again in a low voice and mark the new words;*
- Present a small blackboard with new words written in advance;*
- Read the words and ask the pupils to follow;*
- Ask the pupils to consult the dictionary and write the words;*
- Read the lesson by the teacher and explain it when necessary;*

After the implementation of mentoring system, the pupils comment on teachers differently. The pupil of Class 1, Grade 4 said, "It is so strange that the teaching style of our teachers have changed. Mr. Wu no longer writes the answers on the blackboard and we just copy them down. Sometimes I can go to other groups for discussion. I was worried when my answer is not the same with others, but Mr. Wu praised me that I have careful observation of life."

Sources: Department of Teacher Education & UNICEF, 2010.

3.5 Students' Learning Outcomes Improved

With the interventions, teachers' PD has been enhanced and the students benefit from that in terms of the change of learning styles and improvement of learning outcomes. Students enjoy learning more and they have more and diversified ex-curricular activities. They, together with the school heads and teachers, have stronger ownership of their schools.

Box 5: The quality gap reduced for disadvantaged schools

Before the intervention of the project, in Cangxi County, 21 remote schools perform poorly in the evaluation by the County Education Bureau, with a gap of 21.3 scores from the county average, and Shima Primary School and Longdong Primary school have 23.4 scores under the average. With the project implementation, the remote schools perform much better, with test scores reduced to 4.2-5.3 lower than the county average, and some like Wulong Primary school, Sanchuan Primary School, Shima Primary School outperformed the average (about 0.8-1.3 above the average).

Sources: Department of Teacher Education & UNICEF, 2010.

3.6 School Improved - Teacher Friendly Schools

With the active participation and joint efforts of the students, teachers, school administrators as well as communities, a more teacher friendly atmosphere has been established in the schools, and teachers have received more support and service for their development. As indicated in the following table, 96.7% of the teachers expressed that there is much improvement in terms of working conditions for teachers.

Table 4: Support and service for teachers

Category of Support	Content of Support	% of Sampled Teachers
Institutional Support	The school has the requirement of collective lesson planning	93.9%
	The school organizes regular teaching experience exchange activities	93.9%
	Exchange activities with other schools	91.9%
	Every teacher in the school has a portfolio for professional development	98.1%
	My suggestions on school improvement are voiced to the headteachers and have feedback	89.5%
Resource Support	Can easily get access to the computer room of the school	84.3%
	Can find the needed books in the school library	81%
	Can use the school computers to store teaching materials	91.5%
	The school often provides quality teaching resources for teachers	89%
Professional Development Support	Participate in education research project organized by the school	91%
	The new teachers in the school can get timely support in teaching	83.3%
	I can receive timely and effective training without leaving the school	84.3%

3.7 Other Impacts

The experiences of the project were disseminated and shared through workshops, seminars, trainings and other occasions organized by the technical support team of which the members are mainly from the universities. For instance, the office of education poverty centre of Qinghua University used the Teacher Training Manual for Child Friendly School for their training for headteachers of primary and secondary schools. And other development projects implemented at the same period also refer to the experiences of the project.

4.0 An Expansion of the Support System: Mobile Educational Training and Resource Units Programme

4.1 Background

On 12 May 2008, a devastating earthquake took place in Sichuan and the school infrastructure was severely destroyed in Sichuan and Gansu. UNICEF took prompt action to provide humanitarian assistance to children in earthquake affected areas and school rebuilding was one of the priorities. Later, UNICEF launched the Mobile Educational Training & Resource Units project in cooperation with MoE, with the support of Porsche China.

Together with 4 SUVs, Porsche contributed a total of 10.2 million RMB to the Mobile Educational Training and Resources Units Programme, which was expected to benefit 500 project schools across four counties coming as Qingchuan, Cangxi in the Sichuan province and Xihe, Kongtong in Gansu province. Among the four project counties, Cangxi and Kongtong were the project counties of Teacher Support and Service Project and they were expected to continue their successful practices and be paired with the new county within the same province to disseminate the experiences. The programme was expected to train 3,000 teachers and improve the quality of education of approximately 55,000 students.

The support and service offered by the project is oriented to provide:

- students with quality and relevant learning resources;
- teachers with training resources, regular tutoring and support, and identifying, summarizing and publicizing good teaching experiences and practices; and
- schools with guidance in organizing activities in security, health and sanitation.

The project was launched in early 2010 and was planned to be closed by the end of 2012, with 3 years of duration. However, with its impacts and positive outcomes, Porsche promised to continue the support for the programme for two more years and also expand the programme to two more counties in Yunnan Province in 2012.

4.2 New Initiatives to Enhance Teacher Support and Service System

The new project is actually an expansion of the Teacher Support and Service System Project, with mentoring system as the core for its running. Thus, the project followed all the steps of mentoring system, including identification of mentors and building their capacity, assigning them to different schools to deliver training and give relevant support to teachers, organizing school based professional development activities for teachers and encouraging more peer support among teachers and within cluster schools, and finally monitoring and evaluation of the outcomes and impacts. Also, the new project has its uniqueness in several aspects.

4.2.1 Mentors equipped with robust vehicles

The modified Porsche Cayenne vehicles, with outstanding off-road ability and extensive storage capacity, supported UNICEF's Mobile Educational Training and Resource Units Programme by transporting training and teaching resources to schools which are normally too isolated to receive regular aid and support. These all-terrain SUVs were extremely useful tools in bringing aid to under-equipped rural teachers, returning a degree of normalcy to the lives of children in hard to reach rural communities.

The importance of solving the transportation issue cannot be over-emphasized. Certainly, the maintenance cost including the petroleum cost is expensive. How to keep the vehicle work after the project closure is one issue that needs to be seriously considered, especially at the time when the project is approaching the end.

4.2.2 More resources especially mobile resources provided

Small rural schools are poorly resourced compared with urban schools, even the township primary schools. In order to build more child and teacher friendly schools, the project equipped each school with resources both for teachers' continuing professional development and students' learning and extracurricular activities.

In addition, as mentioned earlier, the Porsche Cayenne SUVs transport trained staff and other resources such as teacher training and teaching kits, student packs, library resources, and sports equipment to isolated regions along the border of the Sichuan and Gansu provinces. The car with the carried resource packs is playing the role of a mobile resource centre and it goes from one school to another, in many occasions facilitating exchange among different schools by bringing the good practices from one school to another.

Table 5: List of Resources for Project Schools

Category	Document/Module
Resources for Mentors	A laptop for PPT making, video resources as well as plan and report drafting.
	A projector (including a screen) for the site-training in schools.
	A digital camera (which can video activities) for recording training and other activities.
Resources for Teachers	Teacher training resource pack for all schools, including training manuals or materials on Child-friendly school, pupils' participation, mentoring system, subject teaching, physical education, health education, etc.
	Materials on how to use the students' resources.
	Teaching resources for certain theme related curriculum.
Reference Materials for Students	Guidelines on how to develop and disseminate newsletters.
	Sports pack: a package of sports equipment such as shuttlecock, battledore, badminton racket, skipping rope, basketball, volleyball as well as others was also offered to the schools for free.
	Reading pack: a package of books fit for children as well as some for teachers was provided to each school and used for teaching assistance and students' after-class reading. For those isolated school, this has greatly enriched the resources that the students can get access to.
	Students' learning resource pack: in support of the subject learning.
	Relevant learning courseware of long-distance education.

Also, as a project in support of the rebuilding of earthquake affected schools, psychosocial assistance and sanitation/health education materials have also been supplied, accompanied by experts and support staff for school visits.

With diversified and relevant resources for students, teachers as well as schools, the project was described as the resource pool for teachers and students' learning.

The two phases of teacher support and service system project, together with other development projects such as China/UK Southwest Basic Education Project and similar practices in different parts of China, have collectively made positive impacts on policies at different levels and the practice of teacher training and support. Currently, the Department of Teacher Affairs (Renamed from the Department of Teacher Education) , Ministry of Education of P.R.China is going to adopt the mentoring system as an important component of the National Teacher Training programme³, which may greatly secure the sustainability of the project.

5.0 Lessons Learned

5.1 To enhance the quality of teacher training by strengthening the capacity building of mentors

Based on the study tour to Romania in 2006, the project team made a decision of taking mentoring as the main intervention. Thus, to have a team of highly qualified mentors is always the focus of the project. The project activities started from the identification of mentors and training for them, and the capacity building of the mentors happened all through the project implementation, with diversified strategies including formal training sessions, engaging in project design and material development, exchange and peer support among the

³ The National Teacher Training Programme for Primary and Secondary School Teachers was launched by the Ministry of Education and Ministry of Finance in 2010, as an important strategy to promote the quality of primary and secondary school teachers, especially rural teachers, with a budget of 550 million RMB for that year. The programme includes two components coming as Demonstration Training Project for Primary and Secondary School Teachers and Training Project for Backbone Rural Teachers from Central and Western China. In 2014, the budget for the programme was about 1.4 billion RMB. The programme prioritizes the professional development of rural school teachers, and among the nearly 5 million teachers trained these years, over 4.7 million are from rural teachers.

mentors, long distance support to the mentors by national and provincial experts, learning by school visits and relevant reflections, learn from the teachers, etc. And the empowered mentors will be the agents for future teacher professional development activities, even after the project closure.

5.2 Training and support responding to teachers' needs and more localized, interactive and continuous support

The new model of TPD initiated by the UNICEF-MOE project seeks to transform the traditional teacher training which most of the time neglects the needs of the teachers. It starts the training and support from needs assessment through classroom observation, questionnaires, interview and other means.

As locals, the mentors know well about local teachers and their challenges. They are close to the teachers and their support to the teachers is more easily accessible. And they may also play the role of models of excellence for the teachers to follow. Their support to the teachers is not one-way input but an interactive process, and not a one-off event but a continuous process. Furthermore, the mentors help translate the new ideas and methods advocated by the project into diversified practices in schools and classrooms, and they help bridge the external experts and teachers from rural schools.

5.3 The integration of resources for teacher development

Traditionally, different departments at the county level like education bureau, teaching research office, school for teachers' continuing education and centre for education technology work separately and relevant resources are not integrated, which may possibly lead to the repetition of teacher training programmes and a waste of resources. The project baseline survey clearly showed the problem above. The project makes efforts to establish county teacher learning and resource centres by integrating resources of different departments to provide support to teachers for their professional development.

5.4 Necessary policy support

China has a more centralized administration system which requires policy support from the government when piloting a new initiative or plan. Regulations, Recommendations and

Documents issued by Ministry of Education, Provincial Education Department, District or County Education Bureaus pave the way for the piloting, scale-up of the new initiative of teacher support as well as its sustainability. In Kongtong District of Gansu Province, the local government has issued the document *Some Considerations for the Establishment of District Teacher Support and Service System* and invested 325,000 RMBY afterwards to support the establishment and running of teacher learning and resource centres.

5.5 The adaptation of international experiences

As discussed, the mentoring under the teacher support and service system was introduced to China based on the success of relevant practice in Romania. But China differs greatly from Romania in size, history, culture, ethnicity and other aspects. Even in China, there is big difference between the urban and the rural, the east and the west. In this case, the introduction of successful international practice should necessarily be adapted to match the local context and needs.

Before the implementation of mentoring system, China has already initiated “sending teaching and training to rural areas” and other practices like school based training in different parts of China. Thus, the introduction of the new model of TPD was closely combined with the existing practices to avoid repetition, encourage the active participation of stakeholders as well as secure the sustainability of the new practice. The project team keeps the idea of value added but not to replace the existing practices.

6.0 INRULED's Research on Rural Teachers' Support System

Education for All (EFA) is an international initiative that focuses on universal access to quality basic education. As UNESCO's top priority in education, it aims to bring the benefits of education to all children, youth and adults. It is widely acknowledged that teachers are playing a key role in student performance, especially in resource-constrained rural settings where the teacher is often one of the few resources available to the disadvantaged students. Indeed, teachers' continuing professional development is one of the most important elements for the success of education system and stances, particularly those in rural and remote areas, war zones and post conflict situations. A number of education projects worldwide have been conducted as a response to the urgent needs of rural teachers' professional development by setting up local support systems for them. It is of great value to examine the successful practices in this area and identify the common attributes and reform elements that are replicable for rural education elsewhere as they seek relevant support for their teachers to improve education quality.

As a Category II Centre engaged in research and training for rural education in the family of UNESCO, International Research and Training Centre for Rural Education (INRULED) initiates and facilitates exchange and dissemination of experience in international rural education within the framework of Education for All. To support the UNESCO Strategy on Teachers (2012-2015) and UNESCO Initiative for Teachers Capacity Development in Priority Countries with focus on Africa (2012-2015), INRULED has launched teacher-related projects jointly with the International Institute for Capacity Building in Africa (IICBA) to accomplish the common missions and strategic priorities of both institutions. "Developing Support System for Rural Teachers' Continuous Professional Development" is the starting cooperation project which aims to study some good practices on support system for rural teachers in the developing world.

One of the outcomes of this joint research project is a publication of the research findings which is going to be published by SAGE Publishing House. It shares five innovative practices on teacher support system that have been successfully implemented in different contexts

and identifies some key components for an effective teacher support system in rural settings. Another outcome is a guide book for relevant stakeholders to build up effective support systems for rural teachers which is based on the findings of the research project. It is a practical guidance for policy makers and practitioners. It provides not only the types and case studies of the successful Teacher Support Systems in rural settings, but also the specific steps to and principles for developing a teacher support system. It's our belief that quality teachers could be attracted and retained for rural schools through developing effective and sustainable support system for their professional development.

The five practices of rural teachers' CPD from Cambodia, China, Ethiopia, Mozambique and Romania included in the research have following Common attributes:

- Meeting local needs and the support is more participatory and interactive;
- A more decentralized system with localized support to build the ownership of stakeholders;
- With continuous follow-up support after training or other professional development activities, and encourage peer support among teachers and within cluster schools;
- Include all teachers in learning and target whole school improvement; and
- Built on the existing system but not a separate one.

So what do we mean by a support system for teachers in rural areas? A Teacher Support System could be defined as, 'a support strategy and mechanism for teachers and schools in a given context, particularly in rural areas, which brings together material and human resources to provide continuous, relevant support to teachers' professional development so as to improve the conditions for teaching and learning'(INRULED, 2014).

For rural areas, it ensures that support and resources are available to rural teachers who are normally isolated with no access to the support they need. Moreover, it enables teachers and educators to support each other by providing follow up, sharing good practices and looking for solutions to local or unique issues such as large and overcrowded classes, teaching in bilingual or multi-lingual classes, teaching against gender stereotypes, teaching children from extremely poor families and single parent families or orphans.

Built on the definition of teacher resource centre by Giordano (Giordano, 2008), INRULED framed that a support system for rural teachers is characterized by the following elements:

- A group of teachers that serve as a network to exchange ideas, share good practice and support each other professionally;
- The presence of a group of facilitators (mentor, tutor, trainer or supervisor) who provide on-going and follow up support for classroom practice, professional development and in-service courses;
- A space that is called a 'teacher resource centre', which may house meeting facilities, a lending library, reprographic materials and ICT tools (telephone, fax, internet);
- The involvement of wider communities in the TSS, for example, parents, members of the town/ village, other professional bodies, local businesses and so on;
- A mechanism put in place for the function, progress, management and monitoring of the support system to ensure accountability and transparency.

Annex: Indicators for Teacher Support and Service System (County level)

Area	Indicators	Monitoring points
1. Support in Management	1.1 Sound policy formulated	1.1.1 Have clarified the roles and responsibilities of relevant parties for teacher support and service system; 1.1.2 Have formulated county level teacher training plans matching local context and teachers' needs; 1.1.3 Have worked out the Regulation for the Teacher Resource Centres and the centres have complete record of its activities; 1.1.4 Have established mechanism of monitoring, reviewing and evaluation of teacher training and put the mechanism in practice;
	1.2 Positive incentive mechanism established	1.2.1 Have established incentive mechanism to encourage teachers to conduct individual study and teaching research for their professional development; 1.2.2 Teachers' participation in training is considered as a factor for their promotion, annual assessment and rewarding; 1.2.3 Having regular teaching competition, and rewarding the teachers' for their teaching innovation and teaching research outcomes annually; 1.2.4 Have formulated incentive policies to encourage the teacher resource centres to provide support and services for teachers and reward the teacher resource centres with better performance.
	1.3 Encouraged active participation of relevant parties	1.3.1 Have established effective communication channels between schools and the county, township teacher learning and resource centres; 1.3.2 Regular exchange activities in teaching among teachers from different schools; 1.3.3 Teachers encouraged by schools to be partners voluntarily for cooperative learning; 1.3.4 The schools have established a mechanism to communicate with parents and jointly help solve problems the students meet in their growth; 1.3.5 Students are willing to communicate with teachers and give comments and suggestions to the teachers;
	1.4 Necessary financial support provided	1.4.1 Funds are raised from various sources by the county to secure the implementation of regular teacher training; 1.4.2 Over 5% of public funding of the schools is spent on teacher training; 1.4.3 The county and township teacher learning and resource centres have budget at the beginning of each year and financial report at the end of each year.

	<p>1.5 Optimized allocation and distribution of education resources</p>	<p>1.5.1 The county has integrated the teacher training resources of different departments of teacher training, teaching research and education technology, and positive and effective cooperation has been implemented;</p> <p>1.5.2 The county has established teacher learning and resource centre responsible for the organization, coordination, direction, management and other services of teacher training;</p> <p>1.5.3 The county teacher learning and resource centres have linked with relevant higher institutions and teacher training agencies and cooperation has started;</p> <p>1.5.4 The county teacher learning and resource centres regularly conduct survey on teacher force building, formulate analysis reports and offer relevant policy recommendations and consultancy to the education administration.</p>
	<p>1.6 Established supportive atmosphere for training</p>	<p>1.6.1 The headteachers encourage and support teachers' individual learning and include teachers' professional development into the school development plan;</p> <p>1.6.2 The schools have built teacher learning corners;</p> <p>1.6.3 The schools have established an atmosphere of participation, exchange and interaction, cooperative learning for teachers' development;</p> <p>1.6.4 The ideas of children's rights accepted by most of the teachers and teachers can respect the diversity of students' cultural background and students' difference;</p>
<p>2. Support in teachers' learning</p>	<p>2.1 Organize effective school based teaching research and training activities</p>	<p>2.1.1 School based teaching research included into the county teacher training plan and the schools have school based teaching research plans and annual teacher training plans;</p> <p>2.1.2 Teachers have formulated their professional development plans and implement them step by step;</p> <p>2.1.3 The schools can organize various school based research activities upon the plan, according to the training needs of teachers;</p> <p>2.1.4 The county and township teacher learning and resource centres regularly invite experts and backbone teachers to support the school based teaching research activities;</p> <p>2.1.5 The schools organize training on skills and methods for school based teaching research;</p> <p>2.1.6 The teachers can form cross-grade and cross-school groups according to their will and conduct action research;</p> <p>2.1.7 The county and township teacher learning and resource centres can regularly supervise and inspect the research projects by teachers and provide support to them;</p> <p>2.1.8 The county organizes an annual conference to summarize experiences, reward the advanced and enhance the development of school based teaching research.</p>

	<p>2.2 Establish a group of quality mentors</p>	<p>2.2.1 The county and township teacher learning and resource centres have established a team of mentors who can support the learning and professional development of teachers;</p> <p>2.2.2 A mechanism of assigning mentors to rural schools to offer support and services to teachers established;</p> <p>2.2.3 A mechanism of mentor-teacher communication established, and mentors can timely communicate and discuss with teachers to solve problems in teaching;</p> <p>2.2.4 Regular training for mentors provided to continuously promote their professional qualification and training skills;</p> <p>2.2.5 Mentors often visit the classroom of primary and secondary schools to know the teaching, identify problems in teaching and formulate the support plan;</p>
<p>3. Support in technology and resources</p>	<p>2.3 Offer psychological counseling</p>	<p>2.3.1 A teacher for psychological counseling assigned in the county teacher learning and resource centre;</p> <p>2.3.2 A counseling plan for teachers' mental health formulated and training on psychological counseling and relevant skills organized;</p> <p>2.3.3 The teachers have some approaches and skills to make psychological adaptation and release their psychological pressure;</p> <p>2.3.4 The schools have established friendly interpersonal atmosphere and there is mutual understanding and caring among teachers;</p>
	<p>3.1 Improved school infrastructure</p>	<p>3.1.1 The facilities for long-distance education can basically match the learning needs of teachers;</p> <p>3.1.2 Teaching resources of schools can meet the minimum requirement of relevant policies and be regularly updated;</p> <p>3.1.3 The schools consult the teachers and students when updating the teaching resources;</p> <p>3.1.4 The schools can integrate teaching resources from different sources and make the resources complementary and co-shared;</p> <p>3.1.5 The teachers are basically satisfied with the quality of teaching resources of the school;</p>
	<p>3.2 Enhanced utilization of resources</p>	<p>3.2.1 Teachers can get easy access to the school library and computer room for their teaching and learning;</p> <p>3.2.2 The students can watch various TV programmes helpful for their development every day;</p> <p>3.2.3 Teachers from remote rural schools, ethnic groups and female teachers can get equal access to teaching resources;</p> <p>3.2.4 Teachers basically reach the standard of ICT skills, can store the teaching materials and communicate with others via internet;</p>

		3.2.5 The county and township teacher learning and resource centres regularly provide information services to the community;
	3.3 Develop abundant education resources	<p>3.3.1 The schools have formulated incentive policy to encourage teachers to develop and use learning resources;</p> <p>3.3.2 The schools can develop new learning resources by using teachers' excellent teaching plans, self-developed teaching tools and teaching experiences;</p> <p>3.3.3 The schools can download, record valuable resources and make them into training materials;</p> <p>3.3.4 The schools organize regular display of learning resources to motivate the teachers to develop relevant resources;</p>
	3.4 Excellent technicians	<p>3.4.1 A full-time technician assigned in county and township teacher learning and resource centre to be responsible for the management and maintenance of facilities;</p> <p>3.4.2 The technicians can categorize the learning resources for the convenience of teachers' use;</p> <p>3.4.3 The technicians can support and train the teachers on how to use relevant facilities and guide the teachers to effectively make use of the resources in their teaching;</p> <p>3.4.4 The technicians have their own development plans and the counties can offer regular training to continuously enhance their capacity;</p>

References

Ana Maria Sandi, *Mentoring System for Teacher Professional Development: a Case from Romania*, 2012.

Daming FENG, *Rural Teachers' Professional Development: Current Progress and Future Development*, in *Teaching and Management*, 2008 (4).

Department of Teacher Education & UNICEF, *Project Completion Report of Teacher Support and System Project*, 2010.

Elizebeth A. Giordano, *School Clusters and Teacher Resource Centres*, Paris, 2008, UNESCO International Institute for Educational Planning (Fundamentals of Educational Planning-86)

Ministry of Education, *2006 Statistical Bulletin for Education Development in China*, http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_633/200706/23240.html.

Ministry of Education, *The 11th Five-Year National Plan for Education Development*, 2007.

Yanli MA & Jiayi WANG, *A Discussion of Problems in Teacher Training in Northwest with Suggestions – From the Perspective of Constructing “Support and Service System for Local Teachers”*, *Journal of Research on Education for Ethnic Minorities*, 2009 (2).

About INRULED Working Papers on Teachers and Teaching Profession

One of the priority areas for action listed in the current UNESCO Strategy for Teachers (2012-2015) is research knowledge production and communication: informing the global debate about teaching with comparative evidence. In line with this priority, in 2012 INRULED launched a series of working papers on Teachers and Teaching Profession.

The series is intended to review and reflect the good practices in policies and practices intended to support teaching and raise its quality in meaningful ways for student learning, particularly in disadvantaged contexts. Researchers and practitioners are invited to share their findings through this working paper series. Key issues related to teacher policies and practices, including teacher preparation; recruitment of rural teachers; retaining teachers for rural schools; rural teachers' professional development; teachers' status and working conditions, will be discussed in the series.

INRULED welcome feedback from readers and encourage you to convey your comments and criticisms directly to the authors.

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