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## **Novice Teachers Learning from Others: Mentoring in Shanghai Schools**

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*Abstract: This paper explores critically the practice of teacher mentoring in Shanghai schools. It begins with a review of the literature on teacher mentoring, which is followed by an introduction to education and teacher mentoring in the schools. The next section critiques teacher mentoring in Shanghai and we highlight three key characteristics and strengths of the practice of teacher mentoring that ensure the effectiveness and smooth implementation of mentoring in Shanghai schools. In terms of the weaknesses, we argue that the success of teacher mentoring in Shanghai is inhibited by a performative culture that emphasises examination scores and an instrumental view of education. Such a culture and view of education in turn limit the extent to which novice teachers can disagree with the experienced teachers in their teaching practice.*

### **Introduction**

The educational system in China has gained international attention in recent years, especially after the impressive performance of Shanghai in the International Programme for Student Assessment (PISA) in 2009 (OECD, 2010). Described as having achieved a ‘stunning success’ by the Organisation for Economic Co-operation and Development, Shanghai schools have been commended for producing high-quality teachers and top-performing students. However, not much research has been carried out, especially in recent years, on teacher mentoring system in Shanghai.

Based on literature review and document analysis, this paper critically explores the practice by explaining how it takes place through one-to-one mentoring and teacher collaboration in the schools. Three factors that account for the success of teacher mentoring in the city, as well as a key challenge faced by its educators, are described. The present research is intended to add to the international literature on teacher professional development.

### **Introduction to Teacher Mentoring**

As a means of guiding and supporting practitioners to ease them through difficult transitions, teacher mentoring is essential for unblocking impediments to change by building self-confidence and self-esteem as well as directing, managing and instructing (Fletcher, 2000, 2012). Although the definition of mentoring can vary, and may overlap with that of coaching, we follow the definition given by Hobson, Ashby, Malderez and Tomlinson:  
the one-to-one support of a novice or less experienced practitioner by a more experienced practitioner, designed primarily to assist the development of the mentee’s expertise and to facilitate their introduction into the culture of the

profession and into the specific local context (Hobson, Ashby, Malderez & Tomlinson, 2009, p. 207).

Although teacher mentoring has several benefits, essentially it helps novice teachers become successful in their teaching profession and enhances retention outcomes in the long term (Wilkin, 1992; Ingersoll & Kralik, 2004). Some authors claim that it also serves to enhance teaching quality and retention outcomes among both novice and experienced teachers (Washburn-Moses, 2010). Studies of the micro-practices of teacher mentoring dominate the literature on the subject. For example, there is research interest in standards- and content-based mentoring (Britton et al., 2000; Luft & Patterson, 2002). This is understandable as processes and outcomes of teacher mentoring are related closely. The emphasis and focus on process (for example, roles and relationships) is also understandable as the fundamental nature of mentoring and its development and improvement are found at the micro practice level.

One fine example of micro-practice is the concept of 'educative mentoring' espoused by Feiman-Neiser (1998, 2001), whereby novice teachers are helped to use their practice as a location for learning as they work together with experienced teachers in co-thinking relationships. Its three core tenets are (1) cultivating a disposition of inquiry; (2) focusing attention on student thinking and understanding; and (3) fostering disciplined talk about problems of practice (Feiman-Neiser, 2001). However, what is still lacking is a critical understanding of context of teacher mentoring in terms of policy and social and cultural contexts, especially in Asian societies.

Furthermore, with the trend toward school-based mentoring and standard-based reform gaining momentum in modern capitalist nations, an understanding of obligatory teacher mentoring becomes salient. And, although school-based mentoring has been around in many parts of the world since the 1980s and has played an important role in supporting initial teacher preparation, induction and early professional development of teachers (Hobson et al., 2009), high-quality research into mentoring (Rockoff, 2008) and policies that mandate its use in schools (Smith, 2007) remains scarce.

In Shanghai and in other parts of China, teacher mentoring has been a prominent feature of teacher education and professional development for some time (Paine & Ma, 1993; Wang & Paine, 2001; Wang, 2001, 2002; Wu, Zhang & Tian, 2009; Zhang, 2008). In Hong Kong, for example, a critical approach to mentoring and mentor training has been adopted as part of the output of the Centre for Learning Study and School Partnership at the Hong Kong Institute of Education. The next section provides the background information of education and teacher mentoring in Shanghai.

## **Education and Teacher Mentoring in Shanghai**

Shanghai, a cosmopolitan city with a population of over 20 million people, is a provincial municipality under the direct administration of the Chinese central government. All children are required to complete at least nine years of schooling: five years of primary education and four years of junior secondary education. The next stage after the junior secondary level is the senior secondary (high school) level where students study for another three years of study and then sit for the national higher education entrance examination [*gaokao*] to qualify them for higher education.

Student enrolment rates are very high: for example, 98 per cent for kindergarten, 99.9 per cent for the primary and junior secondary levels, and 98 per cent for the senior secondary level in 2010 (Shanghai Municipal Education Commission, 2011). More than 80 per cent of the city's students who are of higher education age are admitted to courses at that level (OECD, 2010).

There are currently about 88,600 full-time teachers teaching 701,600 students in 640

primary schools and 594,400 students in 979 junior and senior secondary schools (Shen, 2007; Shanghai Municipal Education Commission, 2011). There are four formal hierarchical titles for teachers in Shanghai, as follows (Tan, 2013):

- (1) Third-grade (novice) teachers.
- (2) Second-grade teachers. They are intermediate teachers who are promoted from third-grade teachers after three to five years of service. They need to undergo internal evaluation in the school.
- (3) First-grade teachers. They are advanced teachers who are promoted from second-grade teachers after at least five years of service. They need to undergo internal evaluation in the school and external evaluation at the district level.
- (4) Senior-grade teachers. They are teachers who are promoted from first grade teachers after at least five years of service. They need to undergo internal evaluation in the school and external evaluation at the district level.

Besides the above official titles, there are two honorary titles given to excellent teachers: *gugan* [backbone] teachers and *teji* [special-grade] teachers. Backbone teachers are experienced teachers who have obtained at least a second grade. They comprise about 30 per cent of the teacher workforce and are usually at least 30 years old. Special-grade teachers are those who are outstanding in their teaching and leadership. They have usually taught for many years and have distinguished themselves in pioneering new and successful practices and initiatives that are acknowledged by the authorities and teaching community.

### Teacher Mentoring

Teacher mentoring exists in all Shanghai schools and is implemented in two main ways: one-to-one mentoring and group mentoring. For one-to-one-mentoring, all schools have a structured teacher mentoring system [*shitu daijiao*], whereby novice teachers (new third-grade teachers) are assigned a mentor – an experienced colleague who is usually a *gugan* teacher – for about three years. The mentoring process covers all aspects of teaching, such as the discussion of teaching materials, lesson observation and critiquing, teaching methods and the setting and marking assignments. The mentee and mentor are expected to work closely, and the progress of the mentee is monitored closely not just by the mentor but also by the school leaders who hold the mentor accountable for the development of the teacher under his or her charge.

Besides the mentoring system for new teachers, there are other types of mentoring for teachers, such as ‘*gugan* teacher mentoring’ whereby those with the potential to become expert teachers are selected to undertake special training. Mentoring is not only for teachers: in the ‘Shanghai famous principals training project’, where well-known principals mentor a small group of young principals. Mentoring may take place not only on a one-to-one basis but also as a group whereby novice teachers learn from their more experienced colleagues through daily collaboration and lesson observations.

Teacher collaboration primarily takes the form of either a ‘teaching-research group’ [*jiaoyanzhu*] or a ‘lesson preparation group’ [*beikezhu*]. Implemented in China since the late 1950s, the objectives are to allow an exchange of ideas on teaching experiences and develop the teachers’ thinking, professional standards and quality of teaching (Wu, 2010). A teaching-research group consists of teachers who combine according to the subjects they teach (for example, mathematics), while a lesson preparation group is made up of teachers of the same subject on the basis of the grade they teach (for example, mathematics for Primary 1). Each group has a group leader who is tasked to guide and coach the novice teachers in the group. Most teaching-research groups meet once a week for about two or three periods (each period lasts 40 minutes). The meetings count toward the teachers’ workload hours to ensure that sufficient time is allocated for such activities and to encourage the teachers to take teaching-

research activities seriously. This means that all novice teachers are assigned to one teaching-research group where they are expected to participate actively in the group activities and obtain assistance and instruction from their more experienced colleagues. While all schools have teaching-research groups for all subjects, not all schools have lesson preparation groups for all the grades.

Mentoring occurs within the teaching-research group when the senior teachers guide the junior teachers in various teaching-research activities. The teachers may come together to discuss their teaching experiences, share ideas about a new theory or practice, discuss examination questions and problems encountered in teaching, share suggestions, and conduct research related to teaching. Not all activities of the teaching-research groups have to be face-to-face: some teaching-research group members engage in online discussions for greater flexibility and convenience. To encourage resource sharing, the materials and research findings of teaching-research groups and lesson preparation groups are often uploaded onto the school's own staff portal for all teachers to access. Teaching-research groups also invite educational experts such as teaching-research officers from the district, university professors and senior teachers from other schools, to speak to, assist and mentor the teachers. It is also not uncommon for teaching-research groups of various schools in the same district to come together to be trained, and/or plan programs together and exchange ideas.

It is evident that schools in Shanghai take teacher mentoring through teaching-research group activities seriously. For example, one school combines teacher mentoring and teaching-research group activities through 'group mentoring' [*tuandui daijiao*]. Meant for novice teachers with between one and five years of teaching experience, group mentoring is carried out as follows (Liu, 2010, p. 58):

- in the first year, an experienced older teacher from the teaching-research group mentors the novice teachers;
- in the second year, the lesson preparation group's *gugan* teachers take over;
- in the third year, the teaching-research group's *gugan* teachers are in charge;
- in the fourth year, the teaching-research group's *gugan* teachers from different schools lead; and
- in the fifth year, a mentor from the district's 'Famous Teacher Studio' or an expert from an educational development research centre takes over.

The mentoring for each stage involves lesson observations and critiques, as well as other related activities.

All the activities in the teaching-research group expose the novice teachers to a continuous stream of learning opportunities and guidance within a secure environment of trust and collegiality. Consequently, teacher collaboration through teaching-research groups is widely perceived to be beneficial for the teachers, especially the novices (Paine & Ma, 1993; Wang & Paine, 2001; Wang, 2001, 2002). As lesson observation is an integral part of the teaching-research group activities, the next section of this paper elaborates on the process of teacher mentoring through lesson observation.

Another important component of teacher mentoring is lesson observation by fellow colleagues. One school in Shanghai, for example, arranges for experienced teachers to mentor new teachers in preparing and delivering their public lessons:

In giving a public lesson the young teacher will first prepare and conduct the lesson, ask his or her mentor to review it, and then conduct the lesson again. The teaching-research group will then discuss, revise it and she will conduct the lesson again. After three or four rounds, the new teacher will be well trained in the basics of lesson teaching (Wu, Zhang & Tian, 2009, p. 82).

That Shanghai schools have succeeded in establishing a practice of teacher mentoring through lesson observation is due to structural and cultural factors. Structurally, peer lesson

observation is institutionalised in almost all schools. There is an array of lessons to be observed in a typical school. Schools classify lessons into different types, such as ‘homemade lessons’ [*jiachangke*], which are regular lessons that are not prepared for the purpose of peer observation: ‘public lessons’ [*gongkaike*], which are lessons specially prepared for observation by fellow teachers from one or more schools, educational experts and the general public: ‘young teacher’s lessons’, ‘subject leaders’ demonstration lessons’, and ‘famous teachers’ demonstration lessons’. Some lesson observations are followed by a critique.

Besides the different types of lessons, there are also different levels of lessons to be observed: the school, district or national. Accompanying the lesson observations are different types of lesson competitions at all levels for teachers to enable teachers to demonstrate their teaching abilities.

As a part of teacher mentoring, almost all schools expect their young teachers (those below 35 years of age) to give at least one ‘public lesson’ [*gongkaike*] per school term as part of their teacher appraisal. Such a lesson is basically a demonstration lesson for their colleagues, one’s superiors or even the public to observe and comment on. This serves as a form of teacher mentoring for junior teachers who receive feedback from their more senior colleagues on their lesson delivery. Many schools have also designed school-based teacher professional development plans that require all teachers, including novice teachers, to observe and give lessons on a regular basis. Teachers in Shanghai have the time to observe and give lessons on a regular basis as they are given, on average, 8-12 hours class teaching per week, compared with 20 or more in Australia. Teachers giving the public lessons are expected to submit and upload relevant materials such as a lesson plan (for the teacher giving the lesson) and reflections (for the observers) onto the school portal according to prescribed templates.

The widespread use of lesson observations gives novice teachers ample opportunities to observe the more experienced teachers in action as well as to hone their own teaching skills. Teacher mentoring therefore goes beyond the formal structure to become an integrated part of the teachers’ lives. The structural provision and cultural practice of peer lesson observation make it easy for novice teachers to go straight into action and accept the process of lesson observation and critique. It serves as a useful avenue for novice teachers to receive constructive feedback from their more experienced teachers in lesson preparation and delivery. Some schools in Shanghai also use lesson observations as part of a collective research projects within the teaching-research groups. Similar to the ‘lesson study’ approach popular in Japan, this methodology requires teaching-research groups to carry out more than one round of lesson observation, critique and improvement based on the same theme or topic (for an example of how one school follows this methodology, see Ni, 2011).

### **Critique of Teacher Mentoring in Shanghai**

We have identified both strengths and weaknesses with the model and its practice. In terms of strengths, there are three key characteristics of teacher mentoring that contribute towards the effectiveness and smooth implementation of teacher mentoring in Shanghai schools.

#### **Tightly Knit Comprehensive Framework**

It is now not uncommon for countries or provinces within them to adopt a nationwide or statewide approach to teacher mentoring, consistent with the emphases of the respective approaches to teacher standards – for example, the American Standards-Based Reform 2.0 (Darling-Hammond et al., 2009). However, in the case of Shanghai, the comprehensive

framework for teacher mentoring is supported by a larger national centralised framework that mirrors closely the city's framework.

In this regard, the centralised nature of China's education system becomes a strong support and lever for the implementation of the teacher mentoring framework in Shanghai. Although some observers, especially those in the West, may find the framework rigid and unrealistic, arguing that there is a lack of the capacity to assure compliance with reform policies (Fuhram & Elmore, 1990), the standardisation is actually a boon to the education system, as it corresponds to the Asian cultural values of respect for authority and conformity, instead of the egalitarianism and individualism most commonly found in western societies (Hofstede, 2001).

The valuing of conformity is reflected in the strict accountability and inspection regime found in the teacher mentoring framework. Teachers give due respect to the process of teacher mentoring. This is evident in the way that the mentor and mentee take seriously the task of submitting regular reports and undergoing inspection by school leaders. In a sense, the attitude of teachers to the accountability, standardisation and inspection regime in teacher mentoring, and professional development as a whole, is more positive than negative as it is consistent with the society's cultural norms. The provincial and national teacher mentoring framework, with its tight consistency, thus works hand-in-hand with the ideology of collectivism among the Chinese that makes it easy for the Shanghai teachers to guide novice teachers, assist one another, collaborate in groups and share resources and ideas.

Rather than feeling protective over their individual knowledge, expertise and achievement, teachers in Shanghai are generally open to sharing and collaboration for the larger good. Furthermore, the general perception in China is that older teachers are expected to mentor younger teachers; after all, they have already gained substantial teaching experience and therefore are able to transmit their integrated theory, knowledge and practical ability to novice teachers. Conversely, the novice teachers expect older teachers to mentor them. This hierarchical relationship is consistent with what Hofstede (2001) identifies as collectivist culture. The Chinese generally have a strong respect for older people, due to Confucian influences. In fact, the Chinese term for 'teacher' is *laoshi*, which literally means 'old expert'.

The cultural value of collectivism is strengthened by the web of *guanxi* [literally 'relation']: personal connections that an individual in China may draw upon to secure resources and advantages at work and in the course of social life (Law, 2009, pp. 306-307). *Guanxi* resembles but is not identical to Bourdieu's concept of 'social capital', which is defined as 'the aggregate of the actual or potential resources which are linked to possession of durable network of more or less institutionalised relationships of mutual acquaintance and recognition' (Bourdieu, 1986, pp. 248-249, cited in Gold, Guthrie & Wank, 2002, p. 7). The very nature of *guanxi* as an extensive web of social relationships means that no teacher – whether the mentor or mentee – can afford to offend others in the tight educational circle in Shanghai. The effects of *guanxi* serve as a strong motivation for the teachers to cultivate good working relationships through teacher mentoring where ideas, knowledge and resources are exchanged and shared. This fits very well with the definition of mentoring provided by Hobson et al. (2009).

In a nutshell, the centralised comprehensive framework of teacher mentoring, supported by social and cultural norms of conformity and collectivism, makes it possible for the different multiple components and layers of processes of the model to work both seamlessly and coherently in Shanghai. Although we agree that more components in the mentoring programme or more combinations/packages of mentoring activities would lead to greater mentoring effectiveness (Ingersoll & Smith, 2003; Smith & Ingersoll, 2004), we would further emphasise the importance of coherence among the different components.

### Sound Pedagogical Principles of Teacher Learning

The second characteristic that contributes to the smooth implementation of the teacher mentoring framework in Shanghai is the principles of teacher learning that support the different multiple components and layers of processes of the framework. These principles are generally consistent with literature on teacher mentoring, especially with Feiman-Neiser's concept of 'educative mentoring' (1998, 2001).

We have identified four principles of learning in Shanghai schools. The first that the Shanghai teacher mentoring model capitalises and leverages on is the principle of *Zone of Proximal Development* (ZPD) (Vygotsky, 1978). ZPD is defined as 'the distance between the actual developmental level as determined through independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers' (Vygotsky, 1978, p. 86). It is common practice for novice teachers to be paired with and mentored by *gudan* (excellent) teachers for about three years. The huge difference in teaching competencies between the novice and expert teacher ensures not only a high level of teaching knowledge, but also the accelerated development of teaching skills among the former. Furthermore, the substantial duration of the activity plays a huge role in developing the effectiveness of teacher professional learning (Garet et al., 2001).

The same principle of ZPD is also applied to mentoring within either teaching-research groups or lesson preparation groups. In such settings, novice teachers are exposed to a wide range of expertise from a number of expert teachers, thus emphasising the distance and dissonance between novice teachers and expert standing. The wide variety of expertise is also enriched by the presence of teaching-research officers from the district, university professors and senior teachers from other schools.

In summary, all the different components at different layers of the processes that exist in the Shanghai teacher mentoring model maximise – through its hierarchical tight and comprehensive teacher mentoring framework (as described above) – the co-construction of content knowledge and pedagogical content knowledge. The wide gap in competence between a novice and an expert teacher compels a rich co-construction of knowledge. The existence of a variety of expertise within a teaching-research group gives the same effect. Likewise, getting involved in lesson observation from a wide range of teachers with varying competencies promotes a rich co-construction of knowledge. Finally, the opportunities to make public a teacher's own lessons to different audiences at different levels of the education system function to heighten the effectiveness of post-lesson discussion and thus the co-construction of knowledge.

The second principle of learning that is evident in the Shanghai teacher mentoring model is *professional learning that is collective, collaborative or community-based* (Garet et al., 2001; Huberman, 2001; Lester, 2003; Villegas-Reimers, 2003). Teachers who collaborate with each other are more likely to have the opportunity to discuss concepts, skills and problems that arise during their professional development experiences. Teachers from the same school, department or grade level are likely to share common curriculum materials, course offerings and assessment requirements, and to better integrate what is learnt with other aspects of the instructional context, such as assessment, administrative constraints and home-school relationships. Collaboration also contributes to a shared professional culture in which common understandings of instructional goals, methods, problems and solutions can be developed. The average time spent in each teaching-research group is also substantial – once a week for about 40 minutes.

In our view, the notion of teacher mentoring in groups or communities settings is somewhat novel. The concept of community-based teacher learning such as the professional learning communities (PLCs) as espoused in the West (Dufour, 2004; Hord, 1997, Hipp & Huffman, 2009) seems to ignore the role of mentoring or coaching within learning communities. This could be due to the promotion of egalitarian values and relationships that are assumed to support such platforms promote. However, the Shanghai model seems to



suggest that a more hierarchical relationship, in which teacher mentoring and coaching are practised, could exist in community-based teacher learning platforms such as PLCs. The need to be sensitive to Asian cultural values in adapting the enactment of PLCs within the existing systemic power relationship had been argued by Hairon and Dimmock (2012). In the Shanghai setting, it is evident that the cultural value of *guanxi* works to the advantage of building learning communities.

### **Focus on Actual Classroom Teaching**

A third principle of learning that is observed in the Shanghai teacher mentoring model is an emphasis on real classroom teaching, and therefore on pedagogy, aided one again by the hierarchical tight and comprehensive framework for teacher mentoring. Researchers on teacher professional development has consistently highlighted the importance of teacher learning being located in teachers' day-to-day work, or 'job-embedded' (Guskey, 2000; Lester, 2003). Mentoring fits very well with this principle. The focus on classroom teaching is also consistent with the literature that points to the need to tighten the link between teacher professional development and student learning outcomes (Garet et al., 2001; Villegas-Reimers, 2003; Boyle, While & Boyle, 2004).

Novice teachers in Shanghai have many opportunities to learn through lesson observations from both their mentors and fellow teachers and make linkages between theory and practice. As mentioned above, lesson observations are very much institutionalised in almost all schools in Shanghai at the school, district, and national levels, and involve all teachers at their different competency levels. In other words, there are many opportunities for novice teachers to engage in discussions on matters of content and pedagogical knowledge with their mentors and peers. The practice of peer lesson observations has become a cultural norm in the teaching profession, underpinned by the Asian cultural value of collectivism. This is contrary to the dominant Western ideal of individualism, whereby an emphasis on the individual over society may have inadvertently led to teachers being overly self-reliant and reluctant to collaborate and share their resources with others.

The last principle of learning identified in the Shanghai teacher mentoring model is the interrogation of both content knowledge and pedagogical content knowledge through reflection and inquiry. The importance of inquiry oriented and evidence-based professional development practices is well established in the contemporary literature (Day & Sachs, 2004). This is consistent with the growth of inquiry-based teacher professional development platforms such as action research.

Action research has been identified as having considerable potential for the development of the development of a reconstructed teaching profession that enhances the professional standing of teachers (Bottery & Wright, 2000). This is because inquiry- and evidence-based professional learning sharpens teachers' ability to critique both their content and pedagogical knowledge as they go through the process of establishing a problem, setting up an hypothesis, constructing the research questions based on existing literature, setting up the design, collecting and analysing the data on the basis of the findings, re-conceptualising the problem, and beginning a new cycle of inquiry.

This continuous cycle essentially sharpens teachers' inductive and deductive thinking and contributes to the development of their content knowledge and pedagogical content knowledge. Novice teachers situated within a community of teachers who engage in continuous cycles of inquiry will involuntarily learn to sharpen their thought processes.

Despite the above-mentioned strengths of teacher mentoring in Shanghai, there exist two main weaknesses in the model that inhibit the success of teaching and learning in the city.

## Performativity

The first weakness of the model in Shanghai is that it exists within a performative culture that emphasises examination scores and an instrumental view of education. According to Ball (2003, p. 216), performativity is ‘a technology, a culture and a mode of regulation that employs judgements, comparisons and displays as means of incentive, control, attrition and change – based on rewards and sanctions (both material and symbolic)’. The state employs monitoring systems for the school leaders and teachers through the mechanics of performativity such as league tables, appraisal meetings, the annual reviews, report writing, site visits, inspections and peer reviews. Teachers are expected to organise themselves as a response to targets, indicators and evaluations under state regulation.

A performative culture is detrimental to education as teachers ‘are no longer encouraged to have a rationale for practice, account of themselves in terms of a relationship to the meaningfulness of what they do, but are required to produce measurable and “improving” outputs and performances, what is important is what works’ (Ball, 2003, p. 222). In the same vein, students (and their parents) suffer from a testing regime in which the emphasis in schools is predominantly on improving the students’ test scores and winning prizes and awards as ‘evidence’ of their learning, rather than outcomes that are less or non-measurable such as character development.

That education takes place in Shanghai within a performative culture is evident in the city’s over-riding focus on performance measured through examination scores and various monitoring systems imposed by the authorities (Tan, 2012, 2013). Both the students and teachers have generally been socialised into a culture of submission to authority and collectivism. Unlike their counterparts in Anglophone countries, Shanghai school leaders and teachers do not necessarily view the imposition of targets, indicators and evaluations negatively; rather, many see these measurements as ‘objective’, ‘scientific’ and ‘transparent’ means of assessing and rewarding the schools and educators under an effective accountability system. Such a mindset stems from the Shanghai educators’ caution against any mode of assessment that is not standardised or quantifiable as this opens the door for individual subjective judgement and potential abuse.

A consequence of performativity is that teachers and school leaders are under immense pressure to improve high college entrance rates – a key performance indicator for the appraisal of schools, principals and teachers. The fixation with high college entrance rates within an examination-driven environment has given rise to a neglect of the intrinsic value of education. The reference to the value of education brings to mind the age-old distinction between two contrasting conceptions or aims of education, as either ‘intrinsically’ worthwhile (education as a valuable end in and of itself) or ‘instrumentally’ worthwhile (education as a means to extrinsic ends, such as employment or the economic growth of a nation). Although the two conceptions are not entirely mutually exclusive, the differences between them make a major difference to how educational practice is assessed.

Returning to the topic of teacher mentoring in Shanghai schools, it is evident that the mentoring has largely occurred largely against a growing and pervasive swing of the pendulum towards an instrumental view of education. Instrumentalism is in turn driven by capitalist free-market doctrines that took a strong hold in many Anglophone countries in the 1980’s, exemplified by international assessments such as OECD league tables. While there is nothing wrong with valuing education for its instrumental worth, such a mindset, coupled with performative considerations, may have (unfortunately) pushed the intrinsic worth of education out of the picture.

An example of the over-emphasis on the instrumental value of education in Shanghai is the prevalent perceptions of students, teachers and school leaders towards school subjects that are not tested in high-stakes examinations. Known as ‘Expanded Subjects’ and ‘Inquiry/Research Subjects’, these are compulsory but non-examined subjects that are

designed around the students' interests and relate to real-life application. Examples are modern dance, robotics and research projects on social issues such as traffic problems in Shanghai. These subjects were introduced by the Shanghai Municipal Education Commission to encourage 'quality-oriented education' (*shuzhi jiaoyu*) in which students could find satisfaction in learning through a more rounded education. But their status as non-examinable subjects that have no bearing on the students' college entrance results in many school principals and teachers marginalising them in favour of preparing the students for the high-stakes examinations. A report by the Ministry of Education in 2006, while pointing out that some teachers had changed their teaching practices to be more student-centred, acknowledges that 'quality education is loudly spoken [about] but test-oriented education gets the real attention' (Zhao, 2007, 73).

In short, a culture of performativity underpinned by an instrumental view of education has a direct impact on teacher mentoring in Shanghai: the agendas, activities and key performance indicators for the teaching-research groups and lesson observation groups are mostly channelled to improve the examination scores and college entrance rates.

### **Disagreement Between Novice Teachers and Experienced Teachers**

The second weakness of teacher mentoring in Shanghai is the limited extent to which novice teachers can disagree with the experienced teachers and experiment with new ideas. The centralised education system supported by hierarchical social and cultural values could impede the generation of new ideas and knowledge, and encourage the entrenchment of knowledge about teaching that may no longer be relevant now. Wang (2002, 367) avers that the teacher mentoring program in China tends to prevent a novice teacher from challenging the existing assumptions about knowledge and teaching. A great concern is the extent to which teachers can innovate and experiment with new ideas within the traditional setting. There is a tendency for the mentees to rely on learning from the virtuoso teachers without aiming to surpass them through more innovative pedagogies. While a transmission approach for teacher mentoring may help the novices to acquire the basic knowledge and competencies within a short time, they may not be given sufficient encouragement and autonomy to propose novel strategies or methods, especially if these ideas are not practised or endorsed by the mentoring teacher.

This constraint may make it challenging for Shanghai schools to implement novel educational ideas and practices for school improvement in a globalised world where knowledge creation is prized.

Take for example, the issue of 'expertise'. Applying our distinction between the intrinsic and instrumental worth of education, disagreements may arise between a novice teacher and an experienced teacher on the fundamental aim of education. The novice teacher may be inspired by some of the world's great educators who have advocated education as an end in and of itself. This is contrasted with an experienced teacher who, conditioned by a culture of performativity, presses for examination results and favours drilling and rote learning to meet the benchmarks set by the school, city or OECD. In such a situation, which teacher is the real expert? Is it the 'novice' who models and inspires a deep love of learning, or the 'experienced teacher' who advocates transmitting to students model answers and teaching examination techniques? And who is qualified to be a mentor? In such a situation, it is arguable whether the highly 'successful' (able to produce high examination scores) and experienced teachers should be considered to be good potential mentors for the novice teachers.

### **Conclusion**

The Shanghai case is an interesting one because it offers a uniquely Chinese model of teacher mentoring that is different from other countries, especially those in the West. The engagement with the literature on teacher mentoring and professional development in the context of the Shanghai teacher mentoring model has generated further questions:

- How does teacher mentoring fit within a learning community of teachers?
- How do social and cultural values enable or constrain teacher mentoring?
- How do policymakers create and sustain coherent system-wide teacher mentoring frameworks?
- What is the role of school leaders in teacher mentoring in hierarchical, centralised and bureaucratic contexts?
- What is the impact of teacher mentoring on the enhancement of the teaching profession, competencies, classroom teaching and learning, and student learning outcomes?

As the field of teacher mentoring generally still suffers from a lack of high-quality research (Rockoff, 2008), it is recommended that further empirical studies – both quantitative and qualitative – be undertaken to establish the links between teacher mentoring and teacher identity, competency, pedagogy and student learning outcomes, and the social, cultural and political contexts that support it. The example of teacher mentoring in Shanghai should prompt educators to reflect on not only the practice of teacher mentoring but the larger socio-cultural context within which teaching and learning take place.

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