

Teacher characteristics for success in the classroom: Chinese principals' perceptions for hiring decisions

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Abstract Two research questions guided this study of teacher selection: (a) What characteristics do Chinese principals look for when hiring teachers? And (b) what is the effect of participants' gender, experience, or school location on perceived characteristics of effective teacher candidates in hiring? Both interviews and a questionnaire survey were used to collect data from a southwest city of Shandong Province, China. In this mixed design study, quantitative results were consistent with the qualitative results. Additionally, the study results are intended to help readers better understand school principals' perceived characteristics of effective teachers in a Chinese context and provides a framework for future comparative research between China and the USA.

Keywords Teacher hiring · Chinese principals · Teacher characteristics · Effective teaching

Introduction

There is clear and compelling evidence that teacher quality is an important factor—indeed, the most important school-related factor—influencing student learning (Chetty et al. 2013; Ingle et al. 2011; Stronge 2007, 2010). As an extension of the empirical connection between teacher effectiveness and student success, there is a growing research interest in the relationship between teacher quality and administrators' hiring practices, especially given that teacher screening and selection are fundamental aspects of hiring based on teacher effectiveness (Rockoff et al. 2011). Pillsbury (2005) concluded that many administrators would agree that hiring an effective teacher is the most important decision they make. Indeed, principals have an extraordinary opportunity to influence instructional practices and student learning through the teacher selection process (Mertz 2010). Unfortunately, one bad hiring decision can lead to lower student achievement and poor morale among colleagues (Clement 2009). Consequently, making the best hiring choices is paramount to better teaching, more successful schools, and most importantly, greater student success.

Since Shanghai-China students became top performers in the Programme for International Student Assessment (PISA) in 2009, Shanghai educational practices have generated attention worldwide and, in fact, teacher quality has been identified as one of the crucial factors for Shanghai's excellent scores in PISA (Tucker 2014). While selected studies have investigated Chinese teachers' perceptions of effective teaching (e.g., Grant et al. 2013; Liu et al. 2015; Meng et al. 2015), very few studies have examined Chinese principals' perceptions of effective teachers. Investigating principals' views of teacher quality may help us better understand their preferences in teacher hiring.

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Importance of principals' role in teacher hiring

While principals consider faculty selection a top administrative priority (Kersten 2008), relatively little is known about what characteristics principals and other administrators look for in teachers during the hiring process (Harris et al. 2010). Selecting wisely from the available supply of teachers is one of the most crucial dimensions of a principal's job, because teacher selection is one of the most likely paths through which we might expect school leaders to influence student achievement (Engel 2013). Strauss et al. (2000) found few direct links between school administrators and student achievement but speculated that administrators affected achievement through hiring decisions. More recent studies (e.g., Grissom and Loeb 2011) found that principals' time spent on organizational management, including hiring personnel, was positively associated with student test scores.

Various researchers (e.g., Liu and Johnson 2006) identified three approaches to teacher hiring: (1) a highly decentralized approach, in which applicants apply and are hired directly by a school; (2) a highly centralized approach, in which the district oversees the screening, selection, and assignment process; and (3) a mixed approach, in which districts screen applicants and administrators select them (or recommend their selection). In the USA, districts and schools differed in how they organize hiring. For example, in New Jersey, there was an equal representation of the three hiring approaches, whereas principals in the Chicago Public Schools were found to have autonomy from the central office in decisions related to teacher hiring. The Chicago principals were able to choose which candidates they would interview and make job offers to them (Engel 2013). In general, however, urban school teacher hiring in the USA has tended to be centralized, with districts overseeing both screening and selection (Donaldson 2014).

Teacher characteristics principals prefer

Research suggests that principals consistently report preferences for teachers who display strong communication skills (Cain-Caston 1999; Dunton 2001; Ralph et al. 1998) and enthusiasm (Dunton 2001). Principals also report preferences for teachers with particular teaching skills, teaching philosophies, knowledge, and ability to work well with others; however, findings across the extant research are not consistent. For example, Rutledge et al. (2010) found that school administrators valued teachers with strong teaching skills (e.g., establishing positive classroom climate) and subject matter knowledge. Meanwhile, Mertz (2010) found that principals failed to consider factors that directly influenced student achievement, such as

applicants' subject matter knowledge or pedagogical ability to teach subject matter.

Personal teacher dispositions, such as caring, which are considered in the literature as a vital factor in teacher effectiveness (e.g., Averill 2012; Noddings 2013; Stronge 2007), is not commonly considered in studies of hiring. In other studies, these personal teacher dispositions have turned out to be important characteristics for principals in their hiring decisions. Harris et al. (2010) conducted interviews with 30 principals from a mid-sized Florida school district. They classified teacher characteristics into a professional category (e.g., strong teaching skills, experience, knowledge of subject matter, intelligence, certification, and education) and a personal category (e.g., caring, motivated, enthusiastic, works well with others, creative, cooperative, organized, thoughtful, and communication skills). Their results showed that the most common responses regarding the characteristics of an applicant that principals considered as most important were strong teaching skills, caring, and knowing the subject. These were followed by working well with others, experience, enthusiasm, and communication skills. Caring was considered as the second most important characteristic among all of the teacher qualities and considered the most important characteristic in the category of personal characteristics.

Engel (2013) surveyed 368 principals in the Chicago Public Schools (CPS), asking them to both rate and rank their preferences for teacher characteristics from a list of 15 teacher qualities on a 5-point Likert-type scale. The results were as follows: (1) Based on the proportion of principals who rated the characteristics as "extremely important," *Enthusiasm for teaching, classroom management skills, and the ability to provide a positive role model* were the top three characteristics that the surveyed CPS principals reported looking for in teachers; (2) regarding the proportion of principals ranking a characteristic among the most important, *classroom management skills, the ability to create a fun and stimulating learning environment, ability to increase student achievement in ways that will not necessarily show up on standardized tests, and the extent to which a candidate's philosophy of learning is a good fit with the school's* were principals' top choices; and (3) the characteristics that the surveyed principals found least important included *a candidate's gender, distance from school, having an advanced degree in education, prior teaching experience, and the quality of the college or university attended*.

Engel's last point was consistent with findings of prior studies that principals did not necessarily hire the most credentialed or academically competitive teachers. Using a nationally representative sample of recent college graduates, Ballou (1996) found that applicants from more

selective undergraduate institutions were no more likely to be hired than graduates of other institutions. Principals also reported preferring younger candidates (Young and Allison 1982). Meanwhile, principals in lower achieving schools appeared to focus more on classroom management skills and a teacher's ability to improve test scores, suggesting that principals' preferences may vary systematically by school type (Engel 2013).

Chinese context of teacher hiring

Two important documents have guided recent reform of teacher hiring in China. *The Guideline for China's Educational Reform and Development*, issued by the Ministry of Education in 1993, pointed out that the nation should actively promote the reform of internal school management systems with a focus on the personnel system. This guideline, for the first time, proposed a teacher appointment system, which launched the reform of teacher hiring in China. More recently, in 2009, the Ministry of Education issued *The Notice on Further Improving the Work of Primary and Secondary School Teachers Supplement*, promulgating regulations that China should implement a new open system of teacher hiring to deepen the reform of teacher supply and ensure the quality of teacher employment. This set of regulations opened a new era in Chinese public schools relative to teacher selection that incorporates an examination-based hiring system. Subsequently, Chinese scholars have begun to conduct research related to the teacher hiring system.

The basic requirements for Chinese teacher selection include two aspects. The first is the teacher certificate, which is divided into 5 levels: kindergarten teacher certificate, primary school teacher certificate, junior high school teacher certificate, senior high school teacher certificate, and higher education teacher certificate. The second aspect is the requirement for selected educational backgrounds in various types of schools. Specifically, the *Teachers Law of the People's Republic of China* stipulates that a candidate should have the educational background from a secondary teacher training school and above to be a primary school teacher, a community college degree or above to be a junior high school teacher, and a Bachelor's degree and above to be a senior high school teacher. In practice, teacher hiring qualifications vary. Liu (2011) searched the Southwest University Employment Network and found that the key schools in a large city generally had the following requirements for a candidate: professional morality (e.g., love the teaching profession, be a model for students, hard working, dedication, team spirit), academic requirements (Bachelor's degree and above, and Master's degree preferred), good communication skills, a solid foundation of education theories, strong organizational

skills of teaching, scholarship at college, graduation from a key normal university, and an excellent college GPA. The schools of the county and less developed areas had requirements not as high as the key schools in the large city. For example, one county school required a Bachelor's degree from a regular normal university rather than from a key normal university.

Teacher hiring processes vary by geographic regions. Nonetheless, general requirements for hiring include: (1) basic qualification review, including educational background, academic major, institutions attended, and college GPA; and (2) examinations, which usually include written examinations and interviews. Written examinations cover two parts. The first part is on theory of education and its applications (e.g., pedagogy, new curriculum reform, educational psychology, teaching materials and methods) and relevant laws and regulations of education (e.g., Education Law of the People's Republic of China, Teacher Law, and Compulsory Education Law). The second part is on professional knowledge, including subject matter and knowledge of teacher education. Additionally, simulated teaching is a major part of an interview, reflected in two forms: lecturing and analyzing a lesson. After the simulated teaching, the examiners ask questions on the teacher candidate based on the observed simulation lesson and then provide a score based on the candidate's overall performance. Choosing lecturing, analyzing a lesson, or both is decided by the local Education Department. For example, the interview approach in Nanjing, the capital of Jiangsu Province, is lecturing, aimed at examining a candidate's professional knowledge and skills (e.g., understanding of the textbook, teaching methods, and verbal skills), while the interview in Qingdao, a large city of Shandong Province, involves analyzing a lesson, meaning that the candidate analyses the teaching task, states the teaching objectives, and explains a teaching plan according to the requirements of quality education and curriculum standards. This form of interview examines a candidate's basic skills and beliefs such as instructional planning, instructional delivery, teaching philosophy, and professional knowledge (Li and Ma 2014).

Teacher hiring processes in City J, where the current study was situated, were similar to those in other counties of China. Teacher hiring was centralized, and the final decision making was made by the Department of Human Resources. *The Interim Regulations for Government-run Institutions to Recruit Staff*, released by the national Ministry of Personnel in 2005, regulated the government's personnel department and, in conjunction with educational departments and the school that would hire the teacher, is collectively responsible for the guidance, supervision, and management of teacher hiring. According to the document, the decision makers of teacher hiring should be the

government department of personnel, the educational department, and the school. However, in reality, school principals have limited autonomy. Principals of city key schools tend to have more autonomy in hiring than principals of city regular schools or county schools. Shi Zhou, professor of Renmin University of China, pointed out that the school has no autonomy to hire teachers, leading to a phenomenon that the most needed teachers cannot be hired while the hired teachers do not fit in the school, resulting in a negative influence on teaching quality in schools. Therefore, he called for more autonomy for principals in the teacher hiring process (Zhou 2014).

Methods

Guiding research questions

This study aimed to investigate what characteristics Chinese principals think most important in teacher selection. There were two research questions that guided the study:

1. What characteristics do Chinese principals look for when hiring teachers?
2. What is the effect of participants' gender, experience, or school location on their perceived characteristics of effective teacher candidates in hiring?

The study is intended to help readers better understand school principals' perceived characteristics of good teachers in a Chinese context and provide a framework for future comparative research between China and the USA.

Overview of methods

A mixed method approach was used in this study, including both interviews and a questionnaire survey designed for the purposes of the study. In the interviews, principals were asked about hiring practices in their districts and characteristics they most preferred in teacher candidates. For the survey, principals were asked to rate the importance of a list of characteristics identified from the extant literature, with the results used to complement and extend qualitative information regarding how principals' preferences varied by school context. This mixed design enabled the researchers to compare findings obtained from different data sources to reach a deeper and more nuanced understanding of the phenomenon being studied. Specifically, the quantitative survey was used to assess principals' perceptions of research-based teacher qualities that can be specified in advance of data collection. The parallel qualitative interviews generated additional insights and complexities that are relevant and useful to the study. Specifically, the survey allowed the researchers to collect

data from a larger sample of participants so that the findings can be more generalizable, and the in-depth interviews provided opportunities through dialogue and reflection for a few selected principals to share their experiences regarding teacher hiring in context-specific settings. Details for the mixed methods are provided in the following sections.

Interviews

As noted above, maximum variation sampling was used to select six principals from City J, a southwest city of Shandong Province of China with a population of 8.5 million. The researchers selected six participants that vary in gender, years of experience as a principal, and school location. As noted in Table 1, there were one female and five male principals selected. Half of the participants had more than 10-year experience as principals and half had experience <10 years. In terms of location, four were from urban and two from rural schools. Semi-structured interviews were conducted in March 2015. The first author and two graduate assistants visited each principal, and the interview was conducted in the principal's office, lasting approximately 1 h. The following questions guided the interview process: (1) What are the current teacher hiring practices in your school district and what do you think are the possible problems with the hiring system? (2) What teacher qualities would you prefer if you had an opportunity to hire teachers? And (3) what are the differences between the newly hired young teachers and veteran teachers in your school regarding teacher qualities?

Maximum variation sampling served two purposes: (1) to document the range of variation in the principals' experiences with teacher hiring and (2) to determine whether common themes, patterns, and outcomes cut across this variation (Gall et al. 2007; Patton 2002). For a sample as small as the one used in this study, however, heterogeneity can be a concern because individual cases are so different from each other. Any potentially transferable findings across cases may, therefore, be difficult to apply. However, the maximum variation sampling strategy can turn this apparent weakness into strength because if any common patterns are able to emerge from this great variation, they will be of particular interest and value in capturing the core experiences and central, shared dimensions of principals' perceptions about teacher qualities in the hiring process (Patton 2002).

A semi-structured interview protocol was used to elicit participants' reflections on their own experience with teaching hiring. Conducting semi-structured interviews enabled the researchers to enter interview settings with pre-designed questions in mind to ensure that the conversations covered key areas of the research focus, as well as allow

Table 1 Demographic information of interviewees

Interviewee	Gender	Experience	School information
Principal 1	Male	7-year principalship. Before becoming a principal, he was a math teacher for 28 years	Rural middle school. 145 teachers and 1036 students
Principal 2	Male	2-year principalship. Before becoming a principal, he was a politics teacher for 23 years	Urban middle school. 125 teachers and 2080 students
Principal 3	Female	3-year principalship. Before becoming a principal, she worked at the department of occupational education and adult education for 20 years	Urban elementary (Grade 1–6) and middle (Grade 7–9) school. 403 teachers and 7000 students
Principal 4	Male	12-year principalship. Before becoming a principal, he was a Chinese language teacher for 18 years	Rural middle school. 106 teachers and 1017 students
Principal 5	Male	11-year principalship. Before becoming a principal, he was a P.E. teacher for 18 years	Urban middle school. 330 teachers and 5400 students
Principal 6	Male	15-year principalship. Before becoming a principal, he was a math teacher for 11 years	Urban elementary (Grade 1–6) and middle (Grade 7–9) school. 550 teachers and nearly 10,000 students. Four locations

the researchers to generate follow-up questions to encourage participants' deeper thinking on ideas and issues that emerged during the interview. The semi-structured interview format allowed for a degree of standardization, which was useful in across-participant analysis (Kvale 1999; Mason 2002). Simultaneously, the quasi-open-ended format and use of follow-up questions elicited aspects of principals' experiences about teacher selection, including those not previously conceived by the researchers.

Questionnaire survey

The questionnaire employed in this study was developed based on extant literature (e.g., Engel 2013) and educational context in China, including two parts. Part 1 extracted demographic information, and Part 2 consisted of 13 closed-ended items asking respondents to rate their preferences for teacher characteristics from a list of teacher qualities on a 5-point Likert-type scale (ranging from 1 = *not at all important* to 5 = *extremely important*). The respondents also were asked to rank the top three characteristics from the 13 items, such as the selectivity of the candidate's undergraduate or graduate institution, years of education, years of teaching experience, as well as items about the candidate's classroom management skills, ability to improve student achievement, enthusiasm for teaching, and ability to communicate.

The survey was administered at a district-level principal training session in April 2015. Four graduate assistants administered the questionnaires. They first explained the purpose of the study, requested that principals provide honest answers, and ensured principals that participation was confidential. Then, they distributed questionnaires to 328 primary and middle school principals at the beginning

of the second day of training. The survey took about 30 min. Three hundred and sixteen principals completed the survey, resulting in a response rate of 96 %. Among the participants, 278 male and 38 female principals, constituting 88 and 12 %, respectively, participated. In terms of years of being principals, 144 (45.6 %) were 1–5 years, 69 (21.8 %) were 6–10 years, 56 (17.7 %) were 11–15 years, 21 (6.6 %) were 16–20 years, and 26 (8.2 %) were 20 years and above. Regarding school location, 126 were from urban schools and 190 were from rural schools, constituting 39.9 and 60.1 % of the participants, respectively. Regarding levels of schooling, 157 (49.7 %) were from primary schools and 159 (50.3 %) were from middle schools. In terms of types of schools, 94 (29.7 %) were from key schools and 222 (70.3 %) were from regular schools.

Data analysis strategy

For qualitative analysis, constant comparative analysis was used to analyze the qualitative data obtained from the open-ended questionnaire items. The analysis involved four steps. First, all the transcriptions were read repeatedly so that the researchers could be maximally familiar with them. Second, the data were unitized, with these units of information used to generalize a set of non-repetitive, non-overlapping significant codes. Third, categories were formulated by explicating the inter-relations between the meaning and properties of each significant code. Fourth, themes were organized from these aggregate formulated categories, with each theme consisting of units that were considered to be similar in content and, therefore, forming the theory later presented in the paper. The results of the qualitative data were used to answer the first research

question: *What characteristics do Chinese principals look for when hiring teachers?*

For quantitative analysis, descriptive statistical analyses were conducted to describe the Chinese principals' ratings of their preferred teacher characteristics in hiring. Independent *t* tests were used to examine the effect of school characteristics (e.g., school type, school location, school level) on principals' perceived characteristics of effective teacher candidates in hiring with each of the 13 questionnaire items as the dependent variable. As for principal personal characteristics, ANOVAs were calculated to examine the effect of principal experience and the independent *t* test was used to examine the effect of gender. SPSS Version 17 was used for all statistical analyses in the study.

Qualitative analyses results

Problems with current teacher hiring system

The interview with each principal started with the question of possible problems in the current teacher hiring practices in their school districts. As described earlier, teacher hiring in a county district was centralized and schools had no authority for hiring their own teachers. Furthermore, principals were not involved in the hiring process. Thus, the major problem that the interviewed principals reported was that they could not hire teachers their schools most needed. As Principal 6 said, "This year we had two teachers hired but their majors do not meet my school's need. We need math teachers but they hired teachers with physics undergraduate backgrounds for us. Obviously, this will influence the teaching quality. Moreover, we have to give these teachers extra trainings." Given this centralized practice, the principals suggested that schools should have the autonomy to hire their prospective teachers. No matter who are the final decision makers, the interviewed principals thought it most appropriate for professionals to be on the teacher hiring committee. As Principal 3 stated, "The hiring interviewers should be teaching experts, such as deans of students, program coordinators, and master teachers." Principal 6 agreed: "If the school had the autonomy to hire teachers, the interview committee should include master teachers of relevant subject areas rather than administrators."

When asked to compare the differences between the newly hired young teachers and the veteran teachers in their schools to see the changes of an excellent teacher's qualities over time, the surveyed principals mentioned two aspects. First, new teachers knew more about updated subject matter knowledge as well as innovative educational ideas. As Principal 1 said, "We currently use new textbooks and the

teaching philosophy is changing from teacher-centered to student-centered education. Young teachers could adapt to the new textbooks more easily. It's difficult for veteran teachers to connect the new teaching materials with the old materials they are familiar with or to change their teaching philosophy because they are used to the teacher-dominating environment in which the teacher taught and students listened." Second, young teachers nowadays are not dedicated as much as veteran teachers used to be. Principal 2 pointed out: "Young teachers are more active in using new teaching methods, but their dedication is not as good as the veteran teachers." Principal 6 further pointed out that young teachers are extrinsically motivated by benefits: "For example, if the evaluation for professional promotion requires award-winning papers, then teachers devote much time to it and sometimes to a degree that undermines the quality of their teaching. Even though the issues of teachers' publications are related to teaching, I don't think there is much impact on student learning. Therefore, primary and middle school's teachers should commit to teaching." Principal 1 used an example to illustrate this point of view:

Many old teachers of my school graduated from community colleges, having no high degrees as young teachers do; however, they are excellent teachers in my school. Their students have made great progress year after year. The main reason is that these teachers devote themselves to teaching. If a teacher does not love the teaching profession, has no enthusiasm for teaching, considers the teaching profession just as a job position for money, the teacher would negatively influence his student. The major problem with new teachers in my school is that they do not dedicate as much as their old peers. I think work attitudes determine a teacher's work achievement no matter if the teacher holds a Bachelor's or a Master's degree. It means a lot whether the candidate has passion for teaching. A candidate should have the enthusiasm of devoting all his energy to teaching. Every morning he/she is the first person at the door to welcome his students. (Quote from Principal 1)

Chinese principals' preferences for selected teacher characteristics

The main interview question asked the principals what qualities they would prefer if they had an opportunity to hire teachers. Regarding personal characteristics, the principals frequently mentioned that the candidate should be nicely dressed and no profanity, humble, having a positive attitude, happy, humorous, patient, and diligent. Emerging themes in terms of professional characteristics were

summarized and classified into three levels: The highest level was loving the cause of education, followed by professional ethics. The bottom level was knowledge and ability.

Loving the cause of education

According to the interviewed Chinese principals, "Loving the cause of education" had two meanings: loving the teaching profession, and considering the whole school's organizational well-being holds priority over personal benefits. As a principal said, "A teacher candidate should love education and the teaching profession. He/she should not simply regard it as a secure job." Another principal stated, "First, the candidate should obey school administrators. Second, a teacher's philosophy of teaching should fit with the school's philosophy. The teacher does not complain about the working conditions and the students' backgrounds. Thus, the teacher always brings positive attitudes to his/her students and colleagues."

Professional ethics

This quality was also called teachers' morality and was regarded as the most important code of conduct that a teacher must follow. As Principal 4 said:

I think highly of morality. A teacher candidate's teaching ability is important; however, morality is more important because a teacher is working with the hope and future of our country. A good teacher must possess both moral integrity and ability, and set a good example for students. The teacher's words and behaviors should be a learning model for students. (Quote from Principal 4)

Other principals mentioned some concrete connotations of a teacher's morality such as caring, respecting, and treating students equally. Principal 1 said, "The candidate should respect students and treat them as their own children. For example, he must treat each student fairly and help them make progress. Even for students with learning disabilities, he will never lose hope and give up, taking all efforts to help them. He must pay attention to individual differences among students and never hurt students' self-esteem." Principal 3 held a similar point of view. He mentioned that a good teacher should be caring and responsible:

Caring about students is most important. A teacher should love his students as if they were the teacher's own children. With loving and responsibility, a teacher would spend extra time on professional activities to improve his skills; a teacher without loving and

responsibility definitely is not a qualified teacher because the teacher does not do anything with heart and, thus, cannot teach students well. (Quote from Principal 3)

In addition to an emphasis of "The teacher cares for students like a father," Principal 5 stressed treating students equally: "A teacher should treat students equally no matter whether the students are high or low performing. For low performing students, the teacher should communicate more with their parents. Knowing their family background can better help individual students."

Clearly, an emphasis of morality is a feature of China education. For example, the basic principle used to develop professional standards for principals is "morality first", which means that morality is not only for individual principals (e.g., a principal should be ethically moral, be impartial and honest, and care for teachers and students), but also for referring to the functions that a principal plays in moral education for students and in reinforcement of moral construction for teachers.

Professional knowledge and ability

Regarding knowledge, the principals reported that it should include not only subject matter knowledge but also pedagogical knowledge because teachers should understand students' psychological development and advanced teaching philosophy through pedagogy and educational psychology. In terms of ability, the principals' responses could be summarized into six aspects:

- Effective communicator (e.g., explains concepts clearly);
- Comprehension ability about teaching materials, meaning that teachers should have a profound understanding of teaching materials, be familiar with the textbook and age level characteristics of students, and never misunderstand the teaching content;
- Instructional organization ability, meaning that a good teacher can organize and manage the classroom well, create a fun and stimulating classroom environment, maintain good interaction with students, and motivate students to learn and achieve teaching goals;
- Technically competent (e.g., knows how to use a computer);
- Good collaboration with students, colleagues, and parents; and
- Self-learning ability, which means (1) a good teacher should be a lifelong learner, learning from outstanding teachers as well as from professional publications and (2) a good teacher should be reflective on her/his teaching practices in order to address weaknesses and further improve teaching level;

- Creative, which means that a good teacher should be innovative, often experimenting with different and new teaching methods and then form his/her own teaching style.

Quantitative analysis results

Descriptive results

Table 2 presents the frequencies and percentages of the surveyed Chinese principals' ratings of importance of each characteristic on a 5-point Likert-type scale (ranging from 1 = *not at all important* to 5 = *extremely important*). As seen from the table, the following four items were considered by the surveyed Chinese principals as "extremely important" with a percentage of over 50 % of the respondents: *The candidate's enthusiastic for teaching* (68.4 %), *the candidate's ability to create a fun and stimulating classroom environment* (55.4 %), *the candidate's ability to provide a positive role model* (53.2 %), and *the candidate's classroom management skills* (51.9 %). Meanwhile, the following three items were considered by the surveyed Chinese principals as "extremely unimportant": *The candidate's gender* (36.7 %), *whether the candidate has a MA or other advanced degree in education* (20.9 %), and *the quality of the college or graduate program the candidate attended* (18.7 %).

In addition to rating the importance of each characteristic, the respondents were asked to rank the top three characteristics from the list of 13 items. Table 3 reports the percentages of the top three most important items. For the column of "Ranking item most important," the first three items included *the candidate's enthusiastic for teaching* (29.4 %), *the candidate's classroom management skills* (23.7 %), and *the candidate's ability to create a fun and stimulating classroom environment* (16.5 %). The bottom three items included *the candidate's gender* (0.3 %), *whether the candidate has a MA or other advanced degree in education* (0.6 %), and *the quality of the college or graduate program the candidate attended* (0.6 %). The results of the rating and the ranking were consistent for both the most important and the least important items.

Independent *t* test results for school characteristics

The results of independent samples *t* test for school characteristics (e.g., school type, school location, school level) are presented in Table 4. Statistically significant differences were found on 4 items of the Chinese principals' perceived characteristics of effective teacher candidates in hiring in terms of school location, 11 items were significant regarding school level, and no items were significant in terms of school type. Specifically, the independent samples *t* test revealed statistically significant differences between rural and urban principals on (1) *the candidate's ability to relate well with parents* ($t[314] = 3.25, p = 0.001$), with

Table 2 Responses of Chinese principals (frequency and %)

	Extremely unimportant	Unimportant	Neutral	Important	Extremely important
q1. The candidate's classroom management skills	5 (1.6)	11 (3.5)	37 (11.7)	99 (31.3)	164 (51.9)
q2. The candidate's ability to relate well with parents	4 (1.3)	15 (4.7)	54 (17.1)	135 (42.7)	108 (34.2)
q3. The extent to which the candidate's philosophy of learning is a good fit with the school's	11 (3.5)	21 (6.6)	89 (28.2)	114 (36.1)	81 (25.6)
q4. The candidate's ability to raise student test scores	7 (2.2)	30 (9.5)	54 (17.1)	153 (48.4)	72 (22.8)
q5. The candidate's gender	116 (36.7)	108 (34.2)	57 (18)	17 (5.4)	18 (5.7)
q6. The candidate's ability to create a fun and stimulating classroom environment	14 (4.4)	5 (1.6)	23 (7.3)	99 (31.3)	175 (55.4)
q7. The candidate's prior teaching experience	22 (7.0)	58 (18.4)	112 (35.4)	96 (30.4)	28 (8.9)
q8. The candidate's ability to relate well with colleagues	7 (2.2)	21 (6.6)	67 (21.2)	150 (47.5)	71 (22.5)
q9. The candidate's ability to provide a positive role model	16 (5.1)	9 (2.8)	24 (7.6)	99 (31.3)	168 (53.2)
q10. The quality of the college or graduate program the candidate attended	59 (18.7)	96 (30.4)	106 (33.5)	43 (13.6)	12 (3.8)
q11. Whether the candidate has a MA other advanced degree in education	66 (20.9)	107 (33.9)	95 (30.1)	35 (11.1)	13 (4.1)
q12. The candidate's ability to increase student achievement in ways that will not necessarily show up on standardized test scores	9 (2.8)	20 (6.3)	79 (25)	131 (41.5)	77 (24.4)
q13. The candidate's enthusiastic for teaching	14 (4.4)	2 (6.0)	12 (3.8)	72 (22.8)	216 (68.4)

Table 3 Percentage of the top three most important items (%)

Item	Ranking item most important	Ranking item the top two	Ranking item the top three
q1. The candidate's classroom management skills	23.7	16.1	14.9
q2. The candidate's ability to relate well with parents	1.6	7.9	5.7
q3. The extent to which the candidate's philosophy of learning is a good fit with the school's	5.4	6.6	5.7
q4. The candidate's ability to raise student test scores	3.2	4.1	6.3
q5. The candidate's gender	0.3	0.9	0.6
q6. The candidate's ability to create a fun and stimulating classroom environment	16.5	21.8	14.6
q7. The candidate's prior teaching experience	0.9	0.6	0.6
q8. The candidate's ability to relate well with colleagues	1.9	7.3	7.3
q9. The candidate's ability to provide a positive role model	12.3	17.7	14.9
q10. The quality of the college or graduate program the candidate attended	.6	.9	1.3
q11. Whether the candidate has a MA other advanced degree in education	0.6	0.3	0.3
q12. The candidate's ability to increase student achievement in ways that will not necessarily show up on standardized test scores	3.5	4.4	8.2
q13. The candidate's enthusiastic for teaching	29.4	11.1	19.6

Table 4 The *t* tests for school type, location, and level

	School location <i>t</i> value	School type <i>t</i> value	School level <i>t</i> value
q1. The candidate's classroom management skills	1.649	-1.314	2.014*
q2. The candidate's ability to relate well with parents	3.252*	0.330	3.033**
q3. The extent to which the candidate's philosophy of learning is a good fit with the school's	1.470	-0.997	3.032**
q4. The candidate's ability to raise student test scores	1.352	-1.048	3.834***
q5. The candidate's gender	0.859	-.395	2.069*
q6. The candidate's ability to create a fun and stimulating classroom environment	2.460*	-.462	2.201*
q7. The candidate's prior teaching experience	-0.540	0.484	2.839**
q8. The candidate's ability to relate well with colleagues	2.046*	0.468	2.102*
q9. The candidate's ability to provide a positive role model	2.395*	-0.372	3.162**
q10. The quality of the college or graduate program the candidate attended	1.805	-0.263	4.254***
q11. Whether the candidate has a MA other advanced degree in education	-0.003	0.455	2.391*
q12. The candidate's ability to increase student achievement in ways that will not necessarily show up on standardized test scores	1.524	-0.688	-0.542
q13. The candidate's enthusiastic for teaching	1.661	-0.649	1.369

* 0.05; ** 0.01; *** 0.001

urban principals ($M = 4.24$, $SD = 0.82$) reporting a higher value than did their rural peers ($M = 3.91$, $SD = 0.94$); (2) *the candidate's ability to create a fun and stimulating classroom environment* ($t[314] = 2.46$, $p = 0.014$), with urban principals ($M = 4.48$, $SD = 0.84$) reporting a higher value than did their rural peers ($M = 4.21$, $SD = 1.08$); (3) *the candidate's ability to relate well with colleagues* ($t[314] = 2.05$, $p = 0.042$), with urban principals ($M = 3.94$, $SD = 0.94$) reporting a higher value than did

their rural peers ($M = 3.73$, $SD = 0.92$); and (4) *the candidate's ability to provide a positive role model* ($t[314] = 2.40$, $p = 0.017$), with urban principals ($M = 4.42$, $SD = 0.96$) reporting a higher value than did their rural peers ($M = 4.13$, $SD = 1.11$).

As for the effect of school level, the independent samples *t* test revealed statistically significant differences between primary and middle school principals on (1) *the candidate's classroom management skills* ($t[314] = 2.014$,

$p = 0.045$), with primary school principals ($M = 4.39$, $SD = 0.76$) reporting a higher value than did their middle school peers ($M = 4.18$, $SD = 1.04$); (2) *the candidate's ability to relate well with parents* ($t[314] = 3.033$, $p = 0.003$), with primary school principals ($M = 4.19$, $SD = 0.81$) reporting a higher value than did their middle school peers ($M = 3.89$, $SD = 0.97$); (3) *the extent to which the candidate's philosophy of learning is a good fit with the school's* ($t[314] = 3.032$, $p = 0.003$), with primary school principals ($M = 3.91$, $SD = 0.88$) reporting a higher value than did their middle school peers ($M = 3.57$, $SD = 1.13$); (4) *the candidate's ability to raise student test scores* ($t[314] = 3.834$, $p = 0.000$), with primary school principals ($M = 4.01$, $SD = 0.79$) reporting a higher value than did their middle school peers ($M = 3.60$, $SD = 1.09$); (5) *The candidate's gender* ($t[314] = 2.069$, $p = 0.039$), with primary school principals ($M = 2.22$, $SD = 0.97$) reporting a higher value than did their middle school peers ($M = 1.96$, $SD = 1.26$); (6) *the candidate's ability to create a fun and stimulating classroom environment* ($t[314] = 2.201$, $p = 0.029$), with primary school principals ($M = 4.44$, $SD = 0.78$) reporting a higher value than did their middle school peers ($M = 4.19$, $SD = 1.16$); (7) *the candidate's prior teaching experience* ($t[314] = 2.839$, $p = 0.005$), with primary school principals ($M = 3.32$, $SD = 0.96$) reporting a higher value than did their middle school peers ($M = 2.99$, $SD = 1.11$); (8) *the candidate's ability to relate well with colleagues* ($t[314] = 2.102$, $p = 0.036$), with primary school principals ($M = 3.92$, $SD = 0.84$) reporting a higher value than did their middle school peers ($M = 3.70$, $SD = 1.01$); (9) *the candidate's ability to provide a positive role model* ($t[314] = 3.162$, $p = 0.002$), with primary school principals ($M = 4.43$, $SD = 0.80$) reporting a higher value than did their middle school peers ($M = 4.06$, $SD = 1.24$); (10) *the quality of the college or graduate program the candidate attended* ($t[314] = 4.254$, $p = 0.000$), with primary school principals ($M = 2.78$, $SD = 0.95$) reporting a higher value than did their middle school peers ($M = 2.29$, $SD = 1.11$); and (11) *whether the candidate has a MA or other advanced degree in education* ($t[314] = 2.391$, $p = 0.017$), with primary school principals ($M = 2.58$, $SD = 0.88$) reporting a higher value than did their middle school peers ($M = 2.30$, $SD = 1.21$). Thus, the results of the t tests for the effect of school level indicated a tendency that the primary school principals systematically rated many items higher than the middle school principals.

Independent t test and ANOVA results for principal personal characteristics

As for the effect of principals' gender, the independent samples t test revealed a statistically significant difference

between male and female principals on (1) *the candidate's ability to relate well with parents* ($t[314] = 2.62$, $p = 0.009$), with female principals ($M = 4.39$, $SD = 0.79$) reporting a higher value than did their male peers ($M = 3.99$, $SD = 0.91$); (2) *the candidate's ability to raise student test scores* ($t[314] = 2.25$, $p = 0.028$) with female principals ($M = 4.08$, $SD = 0.78$) reporting a higher value than did their male peers ($M = 3.76$, $SD = 0.99$); and (3) *the candidate's ability to provide a positive role model* ($t[314] = 2.69$, $p = 0.009$) with female principals ($M = 4.53$, $SD = 0.60$) reporting a higher value than did their male peers ($M = 4.21$, $SD = 1.10$).

One-way ANOVAs were conducted to examine the effect of principal experience on the principals' perceived characteristics of effective teacher candidates. The ANOVA showed that there was a significant difference in two items: (1) *the candidate's gender* ($F(4, 311) = 3.922$, $p = 0.004$), with further post hoc test results indicating that principals with 6- to 10-year experience ($M = 2.45$, $SD = 1.23$) had a significantly higher rating than principals with 1- to 5-year experience ($M = 1.96$, $SD = 1.09$) and (2) *the candidate's ability to increase student achievement in ways that will not necessarily show up on standardized test scores* ($F(4, 311) = 2.55$, $p = 0.04$), with further post hoc test results indicating that principals with 1- to 5-year experience ($M = 3.93$, $SD = 0.99$) had a significant higher rating than principals with 16- to 20-year experience ($M = 3.29$, $SD = 1.27$).

Findings and discussion

Findings summary

Some basic findings from this study are summarized as follows. First, the questionnaire employed in this study consisted of 13 closed-ended items asking respondents to rate their preferences for teacher characteristics from a list of teacher qualities on a 5-point Likert-type scale (ranging from 1 = *not at all important* to 5 = *extremely important*). The surveyed Chinese principals rated the importance of the 13 teacher characteristics, and the following four items were considered as "extremely important": *The candidate's enthusiasm for teaching, the candidate's ability to create a fun and stimulating classroom environment, the candidate's ability to provide a positive role model, and the candidate's classroom management skills*. These results were consistent with those from another part of the questionnaire, in which the principals were asked to rank the top three characteristics from the list of 13. The top three most important ranking items were *the candidate's enthusiastic for teaching, the candidate's classroom management skills, and the candidate's ability to create a fun and*

stimulating classroom environment. The items considered least important by the Chinese principals, both from the ratings and from rankings, included *the candidate's gender, whether the candidate has a MA or other advanced degree in education, and the quality of the college or graduate program the candidate attended.*

Second, the emergent themes from the interview data analyses were classified into three levels: loving the cause of education, professional ethics, and teaching knowledge and ability. Among these three top-rated themes, the Chinese principals' top preference was loving the cause of education.

Third, a number of similarities were found between China and the USA when we compared results from this study to those from the US research literature (e.g., Engel 2013; Harris et al. 2010). The results of the interviews conducted by Harris et al.'s study (2010) showed that the most common responses regarding the characteristics of an applicant that principals considered as most important were, in order of preference, as follows: strong teaching skills, caring, knowing the subject, working well with others, experience, enthusiasm, and communication skills. Caring was considered as the second most important characteristic among all of the teacher qualities and considered the most important characteristic in the category of personal characteristic, which was consistent with the finding from this study in which caring was considered by Chinese principals as one of the most important qualities. In terms of differences, teaching skills was ranked as the top quality in Harris et al.'s study while knowledge and ability were regarded by the interviewed Chinese principals in this present study as the bottom level.

Table 5 presents the quantitative findings from Engel's US study and the present China study. As illustrated in the table, Engel's (2013) survey results showed that the top three characteristics that the surveyed Chicago Public Schools principals reported looking for in teachers included enthusiasm for teaching, classroom management skills, and the ability to provide a positive role model. The characteristics that the surveyed principals found least important included a candidate's gender, having an advanced degree in education, and the quality of the college attended. All these characteristics were consistent with our findings from the present study.

Discussion and implications

This study aimed to investigate what characteristics Chinese principals think most important in teacher selection. Based on our findings, we offer selected suggestions as follows. First, as indicated in Table 6, principal responsibility for teacher hiring varies dramatically in the six

countries compared in the analysis (OECD 2010). The only representation from China is Shanghai and, as indicated, the data suggest that Shanghai teachers and principals (98 percent of those included in the survey) have considerable responsibility over teacher hiring. The PISA data indicate that high-performing educational systems are often featured with high autonomy at the school level. In these schools, the school leaders are held accountable for their results and given decision-making responsibility (Fuchs and Woessmann 2007). While the results from this analysis suggest that Shanghai-China principals do have such autonomy, this is not the case in most of China schools and certainly not in those included in this study.

It seems in a country with a centralized educational system, principals as well as teachers have limited autonomy. For example, Liu and Onwuegbuzie (2014) found that both in Cyprus and in China the interviewed teachers reported their lack of autonomy as a result of the educational system's centralization. From the teacher's vantage, this may be because the teachers do not have a clear sense of autonomy under a nationally centralized administrative system, in which national policies are usually implemented in a top-down manner. From the principal's vantage, they clearly do not have power to hire a new teacher; rather, new teachers most typically are hired and assigned by the district office. This restriction most certainly is dissimilar from the USA where an effective principal's power to select new teachers is one of the most important functions of his/her office. Given our findings, we would call for more autonomy for principals in the actual teacher hiring process so that decisions could occur as close to the school as possible in terms of hiring teachers they most need. Furthermore, we suggest that a hiring interview committee should include both expert teachers and administrators. Expert teachers have both pedagogical and subject knowledge. As such, they can contribute their expertise to the decision-making process, resulting in provision of more professional judgment in the new teacher hiring.

Second, the interview data analyses of this study were classified into three levels. Among these, loving the cause of education was most preferred by the surveyed Chinese principals. The point of view of Principal 1 in this study illustrates this standpoint. He thought that the most important quality of a teacher is dedication and commitment to the teaching profession. If a teacher does not have a deep affection for the teaching profession, has no enthusiasm for teaching, considers the teaching profession just as a job position for money, he/she would negatively influence his/her students. Principal 1 even proposed that work attitudes determine a teacher's work achievements no matter whether the teacher holds a Bachelor's or a Master's degree. "Loving the cause of education" is one of the China's teacher professional standards. In the Chinese

Table 5 Comparisons of Chinese and American principals’ perceptions

Teacher characteristics	Average importance rating (1 = least; 5 = most)		Proportion rating item		Proportion ranking item most important		Proportion ranking item in the top two		Proportion ranking item in the top three	
	USA	China	USA	China	USA	China	USA	China	USA	China
The candidate’s enthusiastic for teaching (q13)	4.85	4.50	0.86	0.68	0.09	0.294	0.18	0.111	0.37	0.196
The candidate’s ability to create a fun and stimulating classroom environment (q6)	4.45	4.32	0.58	0.55	0.24	0.165	0.43	0.218	0.74	0.146
The candidate’s classroom management skills (q1)	4.80	4.28	0.82	0.52	0.36	0.237	0.63	0.161	0.85	0.149
The candidate’s ability to provide a positive role model (q9)	4.69	4.25	0.72	0.53	0.00	0.123	0.02	0.177	0.16	0.149
The candidate’s ability to relate well with parents (q2)	4.59	4.04	0.64	0.34	0.00	0.016	0.02	0.079	0.25	0.057
The candidate’s ability to relate well with colleagues (q8)	4.45	3.81	0.53	0.23	0.01	0.019	0.04	0.073	0.26	0.073
The candidate’s ability to raise student test scores (q4)	4.51	3.8	0.61	0.23	0.05	0.032	0.18	0.041	0.35	0.063
The candidate’s ability to increase student achievement in ways that will not necessarily show up on standardized test scores (q12)	4.12	3.78	0.39	0.24	0.12	0.035	0.26	0.044	0.50	0.082
The extent to which the candidate’s philosophy of learning is a good fit with the school’s (q3)	4.61	3.74	0.65	0.06	0.12	0.003	0.20	0.009	0.40	0.006
The candidate’s prior teaching experience (q7)	3.22	3.16	0.11	0.09	0.00	0.009	0.02	0.006	0.07	0.006
The quality of the college or graduate program the candidate attended (q10)	3.23	2.53	0.11	0.04	0.00	0.006	0.01	0.009	0.01	0.013
Whether the candidate has a MA or other advanced degree in education (q11)	2.59	2.44	0.04	0.04	0.01	0.006	0.01	0.003	0.02	0.003
The candidate’s gender (q5)	1.56	2.09	0.03	0.06	0.00	0.003	0.00	0.009	0.01	0.006

The US values in the table were from pp. 74–75 of Engel (2013)

Table 6 School autonomy over resource allocation in the area of teacher hiring and dismissal

	Canada (%)	Finland (%)	Shanghai (%)	Singapore (%)	South Korea (%)	USA (%)
Selecting teachers for hiring						
A	54	33	98	14	32	88
B	39	43	2	38	6	12
C	7	25	0	48	63	0
Dismissing teachers						
A	17	18	99	14	23	75
B	35	19	1	24	4	19
C	48	63	0	62	74	6

Percentage of students in schools whose principals reported which agency has a considerable responsibility in making decision

“A” represents only “principals and/or teachers” have considerable responsibility for the task; “B” means both “principal and/or teachers” and “regional and/or national education authority;” and “C” means only “regional and/or national education authority.” All number sets for each country are rounded and may not equal 100 %

context, if people treat their profession as a cause, they will devote themselves to the profession and work with more passion and concerted effort. The challenge we face, however, is how to evaluate if a person is “loving the cause of education” during the interviewing of teacher candidates.

The surveyed Chinese principals thought that a teacher should consider the whole school’s organizational well-being as a priority over personal benefits, which the principals considered as concrete examples of devoting themselves to the teaching profession. These principals’ viewpoints can best be understood from a cultural

perspective. As Walker and Dimmock (2002) argued regarding Western societies, principals were more inclined to consider the individual needs of both teachers and students than their counterparts in East Asian societies, such as China, Thailand, and Japan. In the Asian countries, the role of principals focused more on developing and ensuring harmony among staff and enforcing common, standard approaches to governance, organization, and curriculum and instruction. It may be that the Chinese principals are correct: Putting one's own needs and concerns underneath the whole school's benefits, from the point of teachers, is a moral requirement. However, this issue needs further examination as to whether it is appropriate to consider it as a criterion in teacher candidate selection.

Fourth, the qualitative data analyses revealed another theme: The teacher should obey school administrators. This review reflects traditional Chinese culture. According to Hofstede's (1980) cultural dimension of power distance, in a high-power-distance culture (e.g., China), individuals expect to be told what to do and how to do their jobs by authority figures. This societal value is reflected in the fact that teachers are not willing to express their opinions to school administration even if they disagree (Chen 2010). They are used to obedience and tend to avoid open confrontation and assertiveness. "The disturbance of interpersonal relations and group harmony through conflict can cause lasting animosity in Chinese cultures" (Walker and Dimmock 2002, p. 182). As a result, Chinese principals tend to avoid situations that might cause conflict and, instead, rely on authoritarian decision-making models. Regarding this key point, we suggest that given changing schooling expectations in a changing China, carefully exploring the Chinese context of how a principal should provide more opportunities for teachers to express their opinions and become involved in school decision making is a practical and needed research issue for future study.

As one of the few empirical studies exploring what characteristics Chinese principals think most important in teacher selection, we trust this study will help our profession better understand the qualities of teacher selection within a Chinese context. In addition, the current study's implications may be important for educational administrators in China as well as in other countries since hiring and retaining highly effective teachers have been major foci of educational reforms in many countries.

It should be noted that this study has limitations. First, as a survey study, this investigation has the common problems of self-report measurement of all the variables involved. Second, this study only involved data from selected regions of China and compared the findings from China to the international literature. Future studies should consider a simultaneous data collection both in China and in Western countries (e.g., the USA) and then compare the findings.

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