ECNU Review of Education

Exploring the Mysteries of School Success in Shanghai

Allan Walker and Haiyan Qian
The Education University of Hong Kong

Exploring the Mysteries of School Success in Shanghai[1]

Allan Walker and Haiyan Qian
The Education University of Hong Kong

© East China Normal University & East China Normal University Press, Shanghai, China

Abstract

Purpose—The purpose of the paper is to discuss some of the mysteries around the much-touted recent success of school education in China and to explore some of the key conditions that may underpin the success.

Design/Approach/Methods—It is a conceptual paper. A wide range of available data and literature has been consulted and analyzed to carefully marshal arguments about how to understand the mysteries and the conditions underpinning the success.

Findings—The paper discusses four mysteries around education success in China. It argues for the development of a fuller and more contextualized perspective to view the success. The paper further suggests that neither of the four general conditions for success—values, reform, leadership or teaching approaches—taken alone, can explain pathways to success.

Originality/Value—The paper provides an original explanatory description of the mysteries of education success and underlying conditions. This paper helps fill a gap in Western understanding of the "why" and "how" of school success in China.

Over the last decade, the state and success of education in China has been widely discussed, debated and analyzed (e.g., Tan, 2013; Tucker, 2011). This has been prompted by China's increasingly visible international economic and political presence. Specifically on the education front, interest has been driven largely by Shanghai's quite remarkable performance on PISA. Due to its PISA performance, Shanghai has been cited as a successful society in various education reports (e.g., Jensen, Sonnemann, Boberts-Hull, & Hunter, 2016; Liang, Kidwai, & Zhang, 2016; Tucker, 2011). Everyone seems to have an opinion on how this has happened and what it means. Noise around the issue comes almost equally from international agencies, academics, national governments and the media. Even a quick scan of the many opinions shows polarization—anywhere between "what they're doing is incredible, we must copy it", and "it's a sham, we should have nothing to do with it".

On one side are copyists' arguments. These appear built around a glowing enamoration with Chinese educational achievements, and calls from countries falling further down "the list", to look closely at the secrets of success and then implant

these within their own systems. The popular press has turned PISA data into emotively driven calls for change. An example from the Australian press captures the essence of these calls.

> The average 15-year-old student from Shanghai is nearly two years ahead in science, and a year and a half ahead in Maths, than a typical Australian teen. Four out of 10 Australian students flunked the national baseline level for mathematical literacy— compared to just over one in 10 in Shanghai. The Australian Council for Educational Research (ACER) called on governments to "act now to stop the slide". (Bita, 2013)

On the other side, cynics argue just as strongly against any form of mimicking Chinese educational practices. Writing in *The Guardian* after debunking the suggestion that the West copy what happens in Chinese education, Ringmar (2013) concluded:

> Should America follow China? Absolutely not, so stop the rumors. American education isn't perfect, but while following Shanghai might mean higher PISA scores, it would be disastrous for the nation's children and its future.

Or, as journalist Simon Jenkins (as cited in Bolton, 2015) claimed:

> The only people who believe the PISA league tables are the BBC and the Department for Education. They're just rubbish.... This isn't about education, it's about scoring.

From a broad perspective, neither the copyists nor the cynics writing from outside China provide particularly constructive perspectives on what's happening in Chinese schools. In many ways, the polarization simplifies both the picture and the progress of education development in the country. Looking into debates around education success from within China itself can provide a somewhat different perspective, even as, in many ways, this echoes the polarization apparent globally, although from a quite different angle. For example, Tucker (2014) summarized the cynical side of the internal argument. He wrote:

> Many people in China are upset about the success of Shanghai on the PISA league tables, because they think that success will blunt the edge of their fight to dethrone the Gaokao from its premier position as the sole determinant of advancement in Chinese society. They see the Gaokao as enforcing an outdated ideal of education, one that rewards memorization and rote learning over understanding and the ability to apply mastery of complex skills to real world problems, particularly problems requiring innovation and creativity. (p. 10)

Other educators writing inside China appear somewhat puzzled by recent international enthusiasm about Chinese education. For example, in the postscript of the Chinese version of *Surpassing Shanghai*, the translator, young Chinese scholar Ke (2013), expressed puzzlement about China becoming a new world role model for education.

> How have we become the 'idol' of our 'idols'? ... We are used to thinking that we need

to learn advanced educational theories and practices from the Western societies. What has happened to this world? Our idols (the Western societies) start to talk about how to learn from us? (p. 215)

Puzzlement about Shanghai's success has prompted some Chinese educators to re-examine their own education systems and belief structures. To some extent, this has made them think that perhaps the education system, which they have criticized heavily over the years, might not be so bad after all. In other words, educators within China are more openly questioning what happens in their schools—the positive and the negative—through seeking insights into what can be labeled as the mysteries of education success in China. The next section focuses on four such mysteries.

The term "mystery" is used in an attempt to capture some of the intricacies around education in China that some may find it difficult to understand or explain. Discussion is further framed by what is claimed as a traditional Chinese proverb *Fortune and misfortune are two buckets in a well (fu xi huo suo fu, huo xi fu suo yi)*. In basic terms, the proverb holds that every event, every condition, every "bit" is part of a larger whole, and that what is judged as "good" or "bad", is relative to changing circumstances or conditions surrounding it.

Three caveats before we discuss the mysteries. First, most of our commentary is centered on Shanghai—China's national experimental laboratory, so it is not representative of China as a whole. Second, we do not analyze PISA statistics, analysis or political debates in depth as these have been covered in depth in multiple forms and formats (e.g., OECD, 2010; Xu & Dronkers, 2016). Third, our discussion is purposefully limited and does not claim to cover all aspects of education in China. We do not intend to romanticize education in China or intentionally discount the myriad of serious issues and problems currently active in the country.

The Mysteries

- Mystery 1: How can a centralized and elitist education system produce relatively equitable student outcomes?
- Mystery 2: How can a strongly stratified school system facilitate sharing of resources across schools?
- Mystery 3: How can politically sanctioned, externally appointed leaders gain leadership legitimacy and win the professional trust and respect of teachers?
- Mystery 4: How can teachers in a strictly tiered professional ranking system be so devoted to learning and supportive of each other?

Mystery 1: How Can a Centralized and Elitist Education System Produce Relatively Equitable Student Outcomes?

Government and education systems in China are centralized, are generally purposefully

elitist, and have been so for hundreds of years (Zhao & Qiu, 2010). Despite widespread criticism, the *Gaokao*[1] still rules (Harris, Zhao, & Caldwell, 2009; Sargent, 2011). National, provincial and municipal agencies tend to concentrate resources on the elite schools to support high-end performance. Although a particularly Chinese form of decentralization has been in place for some time, all three "central" governmental levels are similarly strong and directive in terms of curriculum frameworks, principal selection, training, promotion and even pedagogy. For example, while schools are granted autonomy to design school-based curriculum, national curriculum has the largest proportion in the school curriculum structure (Sargent, 2011; Walker & Qian, 2018). So, simplistically, one bucket drawn from the centralization well comes overflowing with policy-driven standards, focused resources and sky-high expectations—these appear to produce outstanding academic achievement on standardized tests.

However, at the same time as being openly elitist, China has made quite remarkable progress in terms of equity.

> The PISA 2009 result showed that 76% of disadvantaged students in the Shanghai sample were considered "resilient". That is, even though these students were classified as "disadvantaged"—they scored in the top quartile of students from all countries with similar socio-economic backgrounds (Qian & Walker, 2015). Similarly, the PISA 2012 data showed that only 6.4% of the entire student population in all OECD countries overcame the disadvantage of their socio-economic background—achieving high scores in tests. However, in Shanghai more than half of all disadvantaged students scored in the top quartile of students across all countries. (OECD, 2014)

A different bucket dipped into the centralization/elitism well therefore shows increasingly equitable outcomes. Centralization is enacted within the traditional moral basis of governance—a paternalistic concern for everyone (Farh & Cheng, 2000; Walker & Qian, 2018). Traditionally, rulers were assumed to be knowledgeable about and sympathetic toward the interests of all segments of society, not just the elite (Farh, Liang, Chou, & Cheng, 2008; Pye, 1991). Thus, leaders feel a moral and pragmatic obligation to respond to societal and economic problems—and centralized power makes it possible for them to invest quickly and substantially to address these.

An example of this has been progress in access to quality education for migrant students in Shanghai. Migrant children are born in the families of rural labourers who flock to Shanghai in search of employment opportunities and a better life (Qian & Walker, 2015). In 2007, about 384,000 migrant children living in Shanghai were eligible to receive compulsory education. Among these, only 57.10% were enrolled in state public schools and authorized private schools (Fan & Zhong, 2011; Zhang, 2009). By 2012 the total number of migrant children receiving compulsory education in Shanghai had grown to 538,000. 74.72% were enrolled in public schools and 25.28% in government-sponsored migrant schools (Shanghai Education Commission, 2012). This meant that by 2012 almost all migrant children in Shanghai received free compulsory education (Qian & Walker, 2015).

Mystery 2: How Can a Strongly Stratified School System Facilitate Sharing of Resources across Schools?

China has a stratified school system (Cheng, 2011; Thogersen, 1990). Resources are initially allocated based on the rank of the school. For example, high schools in Shanghai are divided into three categories—municipal exemplary schools, district exemplary schools, and ordinary schools. The priority of municipal exemplary schools is to enroll the best students according to their exam results and recruit the highest quality teachers. These schools tend to receive more government funding and better resources, thus enshrining a hierarchically based, unequal relationship between schools. So a bucket dipped in the stratified well differentiates and rewards schools according to both intake and academic outcomes.

But, this same identification and ownership of excellent schools appear to provide a high-quality professional resource base that is used to spread the "wealth" further.

> One policy innovation in Shanghai mentioned in OECD's 2009 PISA file is commissioned administration (weituo guanli). That is, the government commissions successful schools to send teams to "take over" the administration of difficult and disadvantaged schools in rural districts. Under this scheme, the "good" public school appoints its experienced leader (such as the deputy principal) to be the principal of the "weak" school and sends a team of experienced teachers to lead in teaching. Shanghai cited this as an effective strategy in that the ethos, management style and teaching methods of the good schools can be transferred to the poorer school. (Cheng, 2011, p. 97)

A different bucket lowered into the stratification well therefore shows schools not competing with each other across classifications—each has their own expected and accepted place and purpose. Given that most schools are state-owned and teachers are state employees, teachers generally do not fear for the loss of their jobs (Walker & Qian, 2018). Schools have different statuses and different levels of popularity among parents; both are accepted. Lower status schools also understand that it is impossible for them to compete in terms of academic outcomes with the higher-status schools. What they can do is to make the best use of the resources they have to educate the students they enroll (Dello-Iacovo, 2009; Walker & Qian, 2018). Given there is little substantial competition among schools outside their level, schools can more easily see each other as partners rather than competitors.

Mystery 3: How Can Externally Appointed Leaders Gain Legitimacy for Their Leadership and Win Trust and Respect from Teachers?

In China's hierarchal education system, principals are selected, appointed and appraised by the local government agency, so political and connective criteria are important in principal selection (Qian & Walker, 2014; Zheng, Walker, & Chen, 2013). Principals are held tightly accountable to their superiors—but within schools, they are the ultimate authorities. Teachers are expected to defer to the authority of principals,

as principals do to the education bureaus. When selecting and appointing a principal, teachers will be consulted but it is the local government who make the real and final decision (Walker & Qian, 2018). One bucket then drawing from the external appointment well means school communities have minimal say in who will lead them.

However, when selecting principals, educative and particularly classroom knowledge is a very important criterion. Principals are usually promoted from the ranks of excellent teachers. The same is true of the officials who select the principals. Cheng (2011) found that almost all the officers in the government education authorities in China, both at municipal and district levels, started as outstanding classroom teachers.

Thus, another bucket drawn from this "external appointment" well, all things being equal, allows for a form of meritocratic selection—based on professional knowledge. Such a set of circumstances also means principals coming into a school need to win the respect of teachers. Whereas compliance accompanies position in Chinese schools, professional respect does not. As such, school leaders need to gain legitimacy through their expert knowledge in teaching and instruction. Principals in China attach huge importance to their own professional expertise in pedagogy and/or subject knowledge (Wang, 2012; Ying, Hu, & Xia, 2005). They believe that this professional expertise legitimizes their authority in leading and guiding teachers and they spend a substantial amount of time observing teaching and discussing curriculum and instructional issues with teachers (Wang, 2016). Research shows that Chinese principals place huge importance on not only being visible, but also professionally active in classrooms through providing pragmatic feedback to teachers and displaying in a high level of paternalistic care for staff (e.g., Sun, 2005; Su, 2014; Wang, 2016).

Mystery 4: How Can Teachers in a Tiered Professional Ranking System Be Devoted to Learning and Supportive of Each Other?

China has a hierarchal teacher ranking system. Teachers are usually placed into five categories: third-class teachers, second-class teachers, first-class teachers, senior teachers and special-class teachers (Jensen et al., 2016). In addition to the professional titles, many schools also recognize teachers' expertise and so give teachers tiered expertise titles such as backbone (*gugan*) teachers to distinguish teacher leaders of a subject (Cravens & Wang, 2015; Jensen et al., 2016; Qian & Walker, 2013). Water from the "professional rankings" well sees teachers living under a microscope, always on show if they wish to progress "up the levels". This is stressful.

The water from the other bucket dipped in the well is that promotion from one level to the next requires demonstration of not only instructional effectiveness, but also contributions to the induction of new teachers and peer-to-peer professional development (Jensen et al., 2016).

While similar teaching protocols are present throughout China, Shanghai has, in recent years, taken an active role in maximizing the expertise of master teachers for

system-wide professional development and pedagogical advancement. Teachers are classified into a tiered expertise "ladder" that honors expert backbone teachers at school, district, and municipal levels. Selection criteria mainly relates to conducting public lessons and mentoring peer teachers (Cravens & Wang, 2015; Salleh & Tan, 2013). This tiered expertise identification system is employed not only as a measure for recognition, but to identify effective teachers so that they can share their teaching expertise by demonstrating successful practice, mentoring peers, and taking on additional instructional leadership functions. Reporting on a study in Shanghai schools, Qian, Walker and Yang (2017) noted how an expert teacher supports her peers:

> I went to observe their lessons. After observation, I immediately gave them my feedbacks and told them how they could improve. And then I asked them to teach the same lesson based on my suggestions. For example, if I observed their teaching during the 1st session in the morning, I would ask them to reconstruct the lesson in the 4th session (and sometimes even in the 2nd session). (p. 112)

What the Mysteries Might Say

We have seen that different buckets dipped into the same well can reel up quite different loads. We have seen that looking into one bucket only risks presenting an incomplete representation. A rough analysis of the mysteries shows at least four lines of influence, or learning conditions—values, policies, leadership and pedagogies. Can one of these best explain China's success? Four questions guide the discussion.

Can China's educational success be explained by:

- Traditional Chinese values, which inhabit every crevice of society and her attendant systems?
- The social and education policies—or the raft of ongoing reforms flowing from the central agencies into schools?
- The leadership of Chinese schools—is there something special about what school leaders think and do?
- The way Chinese schools organize and approach learning—the pedagogies and teaching approaches?

The Values

Much is made of the power of the traditional values underpinning Chinese society and schools—hierarchy, harmony, respect, expectations, obedience, and conformity (e.g., Bush & Qiang, 2002; Chen & Lee, 2008; Law, 2013). For example, the traditional values impact the teacher-student relationship. The power inequality between the parent and child is perpetuated in the teacher-student relationship, which grants teachers with unchallenged authority (Marambe, Vermunt, & Boshuizen,

2012). The power of these was apparent through discussion of the mysteries—there is no doubting of their influence as learning conditions. However, is attributing everything, or even too much, to culture, risky? Some would suggest it is indeed risky because as Pye (2000) has postulated, at different times the same values seem to produce different effects.

Pye (2000) explains this in terms of the influence of "Asian" values on economic development. Values, he explains, have been used to explain both the rapid economic rise and equally speedy fall of different Southeast Asian economies. We have also seen this phenomenon around comparative educational results. When ingrained traditional values have been cited as the reasons for why countries like China outperform countries like Australia and the U.K. in PISA, the values of discipline, hard work and respect are often credited (Walker, 2003). "Conversely, when trying to account for the lack of creativity in the same Asian educational contexts, the same values are 'blamed'" (Walker, 2003, p. 149).

Pye explains this in two ways. The first is that the same values operating in different contexts will produce different outcomes (Pye, 2000, as cited in Walker, 2003). "That is, the values of the Asian cultures have remained the same but the contexts have changed, and hence what had been positive outcomes become negative ones" (Pye, 2000, p. 245). His second reason is that cultural value clusters combine at different times, in different ways, to produce differing effects thereby making it impossible to establish any cause-and-effect relationship because of the number and complexity of variables involved. His parting words were a timely caution (Pye, 2000, as cited in Walker, 2003). As Pye (2000) commented, "We know that they (cultural variables) are important, but how important at any particular time is hard to judge. We are dealing with clouds, not clocks, with general approximations, not precise cause-and-effect relationships" (p. 254).

So, are the deeply ingrained Chinese values the secret to educational success? It is difficult to answer with either a firm yes or no as both positives and negatives flow from enactment of the values in school, neither of which are predictable, or exist on their own. Hence the values alone are not the key conditions, but combine with other factors to nurture the context for success.

The Policies and Reforms

Centralized policy makers in China have been incredibly active in designing and implementing a range of policies to address problems around equity, exam obsession, life skills to name but a few. Some of these have been very successful, such as the huge progress made in terms of migrant education discussed under Mystery 1. Education opportunity for migrant children at the stage of compulsory education has been widely expanded over the past two decades (Qian & Walker, 2015; Wang & Holland, 2011). Likewise, the ongoing, very competitive mechanisms, such as university entrance exams (the most important high-stake exams in China, also

named as *Gaokao*) continue to drive academic performance, which is the envy of governments worldwide. Other reforms, however, have been much less successful. For example, even after 15 or so years of heavy reforming aimed at improving "quality education"—generally defined as curriculum reform designed to foster creativity and practical skills—the net result has been one of very little change in schools (Ke, 2011; Sargent, Chen, Wu, & Chen, 2011). This seems because reforms run up against other reforms with contradictory aims and values thus causing multiple disconnections between policy intentions and the realities of schools and classrooms (Walker & Qian, 2012). The pressure exerted by the system also pushes any family who can afford it into a burgeoning "shadow education" system where tutors are king.

So, is the raft of centralized reform policies the secret of China's educational success? Whereas they are undoubtedly influential, this influence carries both the positives and the negatives, both of which may well be dependent on each other. So the reforms and established policies are not the dominant conditions—but come together with other influences to create an environment promoting success.

Leadership

Can the mysteries be understood from a leadership perspective? Research has firmly established the vital place leaders play in successful schools and school improvement (Leithwood, Day, Sammons, Harris, & Hopkins, 2006; Robinson, Lloyd, & Rowe, 2008). But do Chinese school leaders do things differently from their Western counterparts? Does this drive success? For example, an ongoing research project (Qian, Walker, & Li, 2017) into the formation and enactment of instructional leadership in China provides some initial glimpses into how principals lead learning in Chinese schools (see Figure 1). The model shows both similarities and differences between Chinese and Western principals. Two differences may be worth noting.

Relational harmony. One theme flowing from data from Chinese principals is around staff relationships. Principals stress the importance of maintaining a harmonious and effective school environment. The key to this is a leadership emphasis on the "fit" between staff relationships, school roles and individual needs. This seems
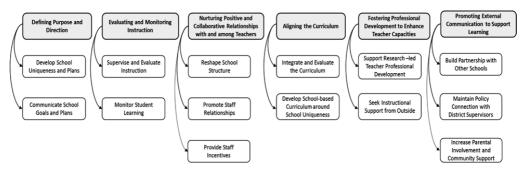

Figure 1. An initial model of instructional leadership in China.

driven by concepts around emotional intelligence—care for the emotions and feelings of staff to promote a collective spirit—strongly and explicitly grounded in Confucian concepts: "human-orientated caring" and "harmonious relationships".

Research-led development. Another strong theme is principals building active applied research environments. Principals spend considerable time effecting instructional improvements in teaching by promoting research-led teacher professional development. They do this by, for example, providing resources and assistance for teachers to engage in multiple collective activities to apply school-based research of teaching theories and methods.

However, principals' power is still largely circumscribed by local government, which often forces them to have "two voices"—one for the central agencies, and one for their community (Walker & Qian, 2018). So, is it what leaders in Chinese schools do that makes the difference to educational success? Whereas they do some things differently, this alone does not appear the dominant condition underpinning success, but does play a key role as they interact with values, policies and pedagogies.

Classroom Teaching

Much is made of the teaching and learning conditions and practices in Chinese and other East Asian schools. According to Reynolds et al.'s (2015) review of the state of school effectiveness in East Asia, learning and teaching practices cluster around large class teaching, teaching fewer lessons per teacher, high levels of academic engagement, whole class interaction and more time on task, teaching with variation, brisk teaching pace, more opportunity to learn and (lots of) regular homework, with timely feedback.

These approaches have certainly produced scores of students who do exceptionally well on high stakes test—this is great—but they are also heavily criticized, especially in China, for contributing to students' lack of creativity, adaptability and initiative (Luo & Xue, 2010; Sargent et al., 2011; Yin, 2012).

Are these conditions the overriding key to success? Again, it seems that even these innovative teaching structures are not the dominant key condition but work with other conditions, such as values and leadership to underpin success.

Thus far we have looked at some mysteries around successful schools in China and of the key conditions that influence how they work. At least three conclusions flow from these.

- *Paradox abounds*. Social and organizational life in China is underpinned by dedication to hierarchy, authority and elitism, but at the same time promotes resource sharing, care and support, and collaboration. Two implications can be drawn from this. The first is that some conditions for success may not be seen as universally good, but on the basis of these conditions, some good things may happen. The second implication is that any educational phenomenon, policy or practice may have two sides. One-sided description can be biased and there is a

need to put at least two sides together to form a more insightful view.

• *Culture counts*. The discussion suggests the importance of strong connections between preferred cultural behaviors/traits and structural and organizational settings. For example, if there is an absence of the societal culture that promotes collectivist values, teachers may not be willing to share and collaborate as they do, even with the carefully designed teacher learning systems.

• *Interconnection rules*. The fact that these conditions have a strong connection with Chinese values, beliefs and institutional structures, may decrease (if not deny) the likelihood that they can be copied in other societies. For example, in other societies, it may be difficult for a high-quality school to share its quality teaching and administrative resources with others in a highly marketized context.

The success of Chinese schools seems to depend on a confluence of often-paradoxical conditions. It is important to understand how and when these come together, and how this resonates throughout school life, either predictably or unpredictably. In other words, working to understand the dynamics of whole may provide a better pathway to understanding of the mysteries of successful schools in China than pulling it apart. This seems more in line with traditional Chinese views, where many Chinese see the world—life, luck, and love—not as collections of discrete objects but as an interwoven mass of substances in search of harmony (Walker, 2012). Nisbett (2003) captures this when comparing the roots of Western and Eastern philosophy.

> Chinese social life was interdependent and it was not liberty but harmony that was the watchword—the harmony of humans and nature of the Taoists, the harmony of humans with other humans of the Confucians. The world was complicated, events were interrelated and objects (and people) were connected "not as pieces of a pie, but as ropes in a net". The Chinese philosopher would see a family with interrelated members where the Greek saw a collection of persons with attributes that were independent of others. Complexity and interrelation meant for the Chinese that any attempt to understand an object without an appreciation of its context was doomed. (p. 13)

Might this belief be applied to understanding the mysteries of school education in China given the knowledge we now have about successful schools in China? For example, what difference will knowledge about how teachers and leaders influence student learning and student outcomes make? This knowledge flows, in various parts, from studies such as PISA and even more sophisticated research in China itself. Insights provide a solid collection of pedagogical and other practices that appear to make a positive difference to a range of student outcomes (e.g., Liang, Kidwai, & Zhang, 2016; Ryan, Kang, Mitchell, & Erickson, 2009; Qian, Walker, & Yang, 2017).

This knowledge tells us much of what is driving Chinese educational success, and, as some suggest, what other societies "should" or "could" do to improve schools and teaching. This is certainly informative, but given what we know about the influence of context on school success, it remains difficult to enact or connect these within the bigger picture in coherent ways. We know more than ever about a wider array of

elements that work in schools in China, but gaps remain about how they fit together, or are pulled together in schools and systems. We have more of the pieces of the puzzle but do not understand enough about how they come together to form a coherent curricular, pedagogical and organizational whole, one that resonates positively throughout the school.

Conclusion

So what picture are we left with around the "why" and "how" of school success in China?

- Despite a flood of data, the picture remains somewhat mysterious, as much within as outside China. Some of the factors which are most criticized are also those most important for broad-based success. For example, the power of the central agencies and their ability to drive equity.
- Neither of the four general conditions for success—values, reform, leadership or teaching approaches—taken alone, can explain, or dominate, pathways to success. But neither can success happen without each of them. For example, without enduring societal values—such as, obedience—the teaching approaches so often touted may not be successful.
- The answer may well be found in how the conditions are woven together "on the ground" in schools. So explorations into the "why" question may best be focused on how leaders, teachers and communities in and across schools work the cultural, structural and relational pathways in their staffrooms and classrooms to create that resonance of success. But even as they do this, they understand that the buckets they use to draw answers, even from the same well, may well bring something different, something unexpected. More empirical studies need to be conducted to further unravel the mysteries and to explore the water of the different buckets to have a better understanding of education in China.

Note

1   This paper was first published as the ICSEI monograph (Walker & Qian (2017)). *Two buckets in a well: Searching for conditions of success in Chinese schools*. ICSEI (International) Congress for School Effectiveness and Improvement) Monograph, Springwood, NSW, Australia. This is a reprint (with minor revisions) with the permission of ICSEI.

Notes on Contributors

Allan Walker is Joseph Lau Chair Professor of International Educational Leadership, Dean of the Faculty of Education and Human Development and Director of The Joseph Lau Luen Hung Charitable

Trust Asia Pacific Centre for Leadership and Change at Education University of Hong Kong. Allan's research interests include the impact of culture on educational leadership and school organization, school leadership In South East Asia, particularly China, leadership development, leading international schools and values and educational leadership. He has published widely and co-authored books *Educational Leadership: Culture and Diversity* and *Deciphering Chinese School Leadership: Conceptualization, Context and Complexities*. He is also a Fellow of the Australian Council for Educational Leadership and has been Editor of the *Journal of Educational Administration.*

Haiyan Qian is an Associate professor in the Department of Education Policy and Leadership and Co-director of The Joseph Lau Luen Hung Charitable Trust Asia Pacific Centre for Leadership and Change at Education University of Hong Kong. Her main area of interest has been around school leadership in China and the influence of the social and cultural context on schooling across Chinese societies.

References

Bita, N. (2013, December 4). PISA report finds Australian teenagers education worse than 10 years ago. *News—National section*. Retrieved from http://www.news.com.au/national/pisa-report-finds-australian-teenagers-education-worse-than-10-years-ago/story-fncynjr2-1226774541525.

Bolton, D. (2015, August 4). Is China's world-beating school system really the best for students? *The Independent*. Retrieved from http://www.independent.co.uk/news/education/education-news/is-chinas-world-beating-school-system-really-the-best-for-students-10436813.html.

Bush, T., & Qiang, H. (2002). Leadership and culture in the Chinese education. In A. Walker & C. Dimmock (Eds.). *School leadership and administration: Adopting a cultural perspective* (pp. 173–186). New York, NY: Routledge-Falmer.

Chen, C., & Lee, Y. (2008). *Leadership and management in China: Philosophies, theories, and practices.* Cambridge: Cambridge University Press.

Cheng, K. (2011). *Shanghai and Hong Kong: Two distinct examples of education reform in China. In OECD, Lessons from PISA for the United States: Strong performers and successful reformers in education.* Retrieved from http://dx.doi.org/10.1787/9789264096660-en.

Cravens, X. C., & Wang, J. (2015, November). *Learning from the Masters: A closer look at the Shanghai teacher-expertise infusion system*. Paper presented at the UCEA Convention, San Diego, USA.

Dello-Iacovo, B. (2009). Curriculum reform and "quality education" in China: An overview. *International Journal of Educational Development*, *29*(3), 241–249.

Fan, Y., & Zhong, C. (2011). *New policy development of the education of migrant children in Beijing and Shanghai*. In D. P. Yang (Ed.), *Annual Report on China's Education (2011)*. Beijing: Social Sciences Literature Publication. (in Chinese)

Farh, J. L., & Cheng, B. (2000). A cultural analysis of paternalistic leadership in Chinese organizations. In J. T. Li, A. S. Tsui, & S. E. Walton (Eds.), *Management and organizations in Chinese context* (pp. 95–197). London: MacMillan.

Farh, J. L., Liang, J., Chou, L., & Cheng, B. (2008). Paternalistic leadership in Chinese organizations: Research progress and future research direction. In C. C. Chen & Y. T. Lee (Eds.), *Leadership and*

management in China: Philosophies, theories and practices. Cambridge: Cambridge University Press.

Harris, J., Zhao, Y., & Caldwell, B. J. (2009). Global characteristics of school transformation in China. *Asia Pacific Journal of Education, 29*(4), 413–426.

Jensen, B., Sonnemann, J., Boberts-Hull, K., & Hunter, A. (2016). *Beyond PD: Teacher professional learning in high-performing systems*. Washington, DC: National Centre on Education and the Economy.

Ke, Z. (2011). How teachers' cultural cognition impacts on the implementation of curriculum: Using inquiry-learning policy as an example. *Global Education, 40*(3), 39–48. (in Chinese)

Ke, Z. (2013). Postscript. In M. Tucker (Ed.), *Surpassing Shanghai: An agenda for American education built on the world's leading systems*. Shanghai: East China Normal University Press. (in Chinese)

Law, W. W. (2013). Culture, gender, and school leadership: School leaders' self-perceptions in China. *Compare: A Journal of Comparative and International Education, 43*(3), 295–322.

Leithwood, K., Day, C., Sammons, P., Harris, A., & Hopkins, D. (2006). *Seven strong claims about successful school leadership*. Nottingham, UK: National College for School Leadership.

Liang, X., Kidwai, H., & Zhang, M. (2016). *How Shanghai does it: Insights and lessons from the highest-ranking education system in the world*. Retrieved from http://elibrary.worldbank.org/doi/pdf/10.1596/978-1-4648-0790-9.

Luo, Y., & Xue, T. (2010). How many obstacles will curriculum reform meet. *Shanghai Education*, (5), 18–20. (in Chinese)

Marambe, K. N., Vermunt, J. D., & Boshuizen, H. P. A. (2012). A cross-cultural comparison of student learning patterns in higher education. *Higher Education, 64*(3), 299–316.

Nisbett, R. (2003). *The geography of thought: How Asians and Westerners think differently and why*. New York, NY: Free Press.

OECD. (2010). *PISA 2009 results: What students know and can do?* Retrieved from https://www.oecd.org/pisa/pisaproducts/pisa2009keyfindings.htm.

OECD. (2014). *PISA 2012 results: What students know and can do*? Retrieved from http://www.oecd.org/pisa/keyfindings/pisa-2012-results.htm.

Pye, L. W. (1991). The new Asian capitalism: A political portrait. In P. L. Berger & H. H. Hsiao (Eds.), *In search of an East Asian development model*. New Brunswick, NJ: Transaction.

Pye, L. W. (2000). "Asian values": From dynamos to dominoes? In L. Harrison & S. Huntington (Eds.), *Culture matters: How values shape human progress* (pp. 244–255). New York, NY: Basic Books.

Qian, H., & Walker, A. (2013). How principals promote and understand teacher development under curriculum reform in China. *Asia-Pacific Journal of Teacher Education, 41*(3), 304–315. DOI: 10.1080/1359866X.2013.809050.

Qian, H., & Walker, A. (2014). Principalship in China: Emerging propositions. *Leading & Managing, 20*(2), 60–74.

Qian, H., & Walker, A. (2015). The education of migrant children in Shanghai: The battle for equity. *International Journal of Educational Development, 44*, 74–81. DOI: 10.1016/j.ijedudev.2015.07.009.

Qian, H., Walker, A., & Li, X. (2017). The west wind vs. the east wind: Instructional leadership model in China. *Journal of Educational Administration, 55*(2), 186–206.

Qian, H., Walker, A., & Yang, X. (2017). Building and leading a learning culture among teachers: A

case study of a Shanghai primary school. *Educational Management Administration & Leadership*, *45*(1), 101–122.

Reynolds, D., Caldwell, B., Cruz, R., Miaou, Z., Murillo, J., & Mugendawala, H. (2015). Comparative educational research. In C. Chapman, D. Muijs, D. Reynolds, P. Sammons, & C. Teddlie (Eds.), *The Routledge International handbook of educational effectiveness and improvement: Research, policy, and practice* (pp. 246–282). Abingdon, OX: Routledge.

Ringmar, S. (2013, December 28). Here's the truth about Shanghai schools: They're terrible. *The Guardian*. Retrieved from https://www.theguardian.com/commentisfree/2013/dec/28/shanghai-china-schools-terrible-not-ideal.

Robinson, V. M. J., Lloyd, C., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership type. *Educational Administration Quarterly, 44*(5), 635–674.

Ryan, J., Kang, C., Mitchell, I., & Erickson, G. (2009). Cross-cultural research collaboration in the context of China's basic education reform. *Asia Pacific Journal of Education*, *29*(4), 427–441.

Salleh, H., & Tan, C. (2013). Novice teachers learning from others: Mentoring in Shanghai schools. *Australian Journal of Teacher Education*, *38*(3), 152–165.

Sargent, T. (2011). New curriculum reform implementation and the transformation of education beliefs, practices and structures in Gansu Province. *Chinese Education and Society*, *44*(6), 49–74.

Sargent, T., Chen, M., Wu, Y., & Chen, C. (2011). Wearing new shoes to walk the old road: The negotiation of opposing imperatives in high school new curriculum classes in China. In T. D. Huang, & A. W Wiseman (Eds.), *The impact and transformation of education policy in China* (pp. 79–98). Bingley, UK: Emerald.

Shanghai Education Commission. (2012). *Suggestions on enrolment of primary and junior secondary schools*. Retrieved from http://www.shmec.gov.cn/html/xxgk/201203/420022012001.php. (in Chinese)

Su, L. (2014). An exploration of empirical school-based research on green indicators. *Shanghai Educational Research, 8*, 63–66. (in Chinese)

Sun, J. (2005). Run a successful school, be a successful principal: Five inspirations of running school by the principal Zhang Mingxia in Zhejiang, China. *Secondary and Elementary School Administration, 5*, 55–57. (in Chinese)

Tan, C. (2013). *Learning from Shanghai: Lessons on achieving educational success.* Singapore: Springer.

Thogersen, S. (1990). *Secondary education in China after Mao: Reform and social conflict.* Aarhus, Denmark: Aarhus University Press.

Tucker, M. (2014). *Chinese lessons: Shanghai's rise to the top of the PISA league tables.* Retrieved from http://www.ncee.org/wp-content/uploads/2013/10/ChineseLessonsWeb.pdf.

Tucker, M. (Ed.). (2011). *Surpassing Shanghai: An agenda for American education built on the world's leading systems*. Boston, MA: Harvard Education.

Walker, A. (2003). Developing cross-cultural perspectives on education and community. In P. T. Begley & O. Johansson (Eds.), *The ethical dimensions of school leadership* (pp. 145–160). The Netherlands: Springer.

Walker, A. (2012). Leaders seeking resonance: Managing the connectors that bind schools. *International Journal of Leadership in Education*, *15*(2), 237–253.

Walker, A., & Qian, H. (2012). Reform disconnection in China. *Peabody Journal of Education*, *87*(2), 162–

177.

Walker, A., & Qian, H. (2018). *Deciphering Chinese school leadership: Conceptualizations, context and complexities.* London: Routledge.

Wang, H. (2012). Factors influencing the formation of educational thought of distinguished principals in primary and secondary schools: An analysis based on grounded theory. *Research in Educational Development, 22*, 70–74. (in Chinese)

Wang, L., & Holland, T. (2011). In search of educational equity for the migrant children of Shanghai. *Comparative Education, 47*(4), 471–487.

Wang, T. (2016). School leadership and professional learning community: Case study of two senior high schools in Northeast China. *Asia Pacific Journal of Education, 36*(2), 202–216.

Xu, D., & Dronkers, J. (2016). Migrant children in Shanghai: A research note on the PISA-Shanghai controversy. *Chinese Sociology Review, 48*(3), 271–295.

Yin, H. (2012). Adaptation and validation of the teacher emotional labour strategy scale in China. *Educational Psychology, 32*(4), 451–465.

Ying, J., Hu, L., & Xia, J. (2005). The analysis of the development process and factors of the famous principals. *Research in Educational Development, 1*, 22–25. (in Chinese)

Zhang, Y. (2009). The problem and solution of schooling of migrant students—commentary on "Two Mainlies" Policy. *Journal of Schooling Studies, 6*(11), 25–28. (in Chinese)

Zhao, Y., & Qiu, W. (2010). China as a case study of systemic educational reform. In A. Hargreaves, A. Lieberman, M. Fullan & D. Hopkins (Eds.), *Second international handbook of educational change* (pp. 349–361). Dordrecht, Netherlands: Springer.

Zheng, Y., Walker, A., & Chen, S. (2013). Change and continuity: A critical analysis of principal development policy in Mainland China (1989–2011). *Educational Management Administration* & *Leadership, 41*(4), 484–503.