LESSONS FROM A SHANGHAI READING LESSON

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Abstract

In recent years the influence of "high performing" Asian cultures has been felt on UK education, especially as one of these, Shanghai, does exceptionally well in international comparisons. However, little is known here about the practice of teaching reading in Shanghai, possibly because of language and script differences. This article examines an exemplary reading lesson in a school in Shanghai and argues that this lesson exemplifies not only practices, but beliefs about reading, teaching theories and policies for teaching reading. The data for this analysis is the observation of one Shanghai teacher's lesson and the subsequent in-depth discussion, reflection and explanation. Critical consideration of a lesson is a very traditional Chinese research methodology in teacher development and the teacher was keen to reflect on the lesson and to explain its origins and significance. The result of this process is an account of a reading lesson and its context in policy, practice and beliefs, constructed with the teacher. The aim of this article is to explore the ways in which teaching practices in one lesson reflect policies, values and principles of teaching reading in Shanghai.

Keywords: reading, culture, pedagogy, lesson study.

1 INTRODUCTION

The Programme for International Student Assessment (PISA) study tests 15-year-old school pupils' scholastic performance in reading, maths, and science. In 2012 [1], of the 64 jurisdictions entered (not all of them countries), Shanghai topped the rankings in all three areas (the UK was ranked 23rd for reading). In the 2015 assessments [2] Shanghai was not entered as a single jurisdiction, so its achievement cannot be compared to earlier outcomes. In 2012, Shanghai students, as well as scoring very highly across the board, also showed the highest levels of engagement, drive and self-belief and were reported as being happier at school than UK children, at a time when there were growing concerns about English children's willingness and enjoyment in reading [3]. Given this, it is perhaps not surprising that there has been a great deal of "PISA tourism" by UK government ministers, resulting in a programme to import maths teachers from Shanghai to train UK teachers of maths. However, in reading, there has been less sharing, perhaps because of differences between the Chinese and English languages and scripts. However, there may be interesting teaching insights to be gleaned about how reading is taught and the priorities of teachers. In this article we aim not to spell out over-simplified lessons for UK teachers, but to share a Shanghai viewpoint and open up the theories and policies which infuse teachers' successful teaching of reading.

Shanghai is not all of China - it is the most economically developed part of that country and a province with a population of around 24 million, nearly 10 million of whom are migrants from other parts of China [4]. In population, therefore, it is around half the size of the UK.

1.1 Teaching reading of a digraphic language

Children in Shanghai start school aged 6 and are taught to read Mandarin Chinese (*putonghua*, or the common language) which they all speak, though they may also use Shanghaiese or another of China's languages. Learning to read Chinese characters is complicated because the characters used for writing are meaning-based, lacking explicit and reliable grapheme-phoneme correspondence rules. The phonological information in Chinese characters is subtle and not accessible to beginner readers. For this reason, many authors assume that the learning of characters is basically a matter of memorization [5], especially for the mastery of the first few hundred characters.

To help young children learning to read characters, a system called Pinyin is used to encode the sounds of Chinese using the Roman alphabet and tone marks [6]. This means that Shanghai children learn two representations of their spoken language – characters and pinyin. This has been described by Chinese linguists as *yiyu shuangwen* (one language, two scripts), *shuangguizhi* (two track system) [7] or as

'digraphia' [8] by westerners. The aim of this policy was to free children from the early burden of character learning so that they could read widely and use texts appropriate to their cognitive level, rather than be limited to oversimple texts that would not satisfy their interests or motivate reading [9]. The original experiments found that children using pinyin to learn Chinese literacy made outstanding progress in pronunciation, reading speed, comprehension, oral-reading skill and composition, leading to standards of achievement two years ahead of expectations [10]. This led to the nationwide policy of teaching pinyin as well as characters [11]. This presents today's teachers of Chinese to Grade 1 children (including the teacher in this article) with the challenge of teaching both pinyin and characters. All children in Grade 1 and 2 are expected to learn pinyin, read the first 2000 characters and write the first 1000 characters by the end of Grade 2 [12], [13]. However, there is no formal test and teachers are encouraged to be flexible in their assessment.

2 METHODOLOGY

2.1 Exemplary lessons as a teacher research tradition in Shanghai

Examination of a single lesson is a well-established form of teacher research (jiaoyan) in China, and reflective accounts are published as research. Western epistemological tradition holds an analytical view of the world, which is typically characterised through empirical investigation [14]. In contrast, the Chinese tradition is rooted in the introspective Confucian tradition of knowing through reflection and wisdom [15]. Research traditions in the UK and China value different types of evidence [16] and Chinese canons of evidence ascribe value to the opinions of senior or successful teachers, based on shared theories of teaching, and interrogate individual lessons in a broader and less intentional way than would be used in the west. Lesson observation is a major plank of professional development, as part of the lesson research tradition of Shanghai (jiaoyan), where all teachers are part of a 'teaching-research group' (jiaoyanzu) which operates by observing and analysing lessons to develop each teacher's jiaoyu linian - the teacher's theoretical and philosophical basis for teaching - as well as teaching skills. This article cannot replicate a Chinese teacher's experience of lesson observation for the UK reader, because the UK reader does not approach this lesson with the same jiaoyu linian, the assumptions or experiences of a Chinese teacher. However, it is in this tradition that we present a single lesson as a focus for consideration of the wider issues of teaching, learning and policy, and share the thoughts we have about the lesson. This methodological approach has much in common with the emerging idea of lesson study, used in UK contexts [17].

2.2 The context of the lesson

The lesson described below was taught by Teacher Li (*Li Laoshi*), a teacher in her second year of teaching. The lesson was a "public lesson" (*gongkaike*), specially prepared for observation as key part of professional development. Early career teachers like Teacher Li give at least one public lesson per school term as part of their teacher appraisal and their planning and teaching are made public in this way. This lesson was observed by 30 Chinese expert teachers and headteachers from across China, who watched from seats at the back of the class, equipped with Teacher Li's extensive lesson plan. One of the authors of this paper was one of two overseas guest observers (the other from Japan) and the teacher met three times with these observers to discuss her planning and to reflect on the lesson. The lesson was followed by a discussion session with the expert audience so that they could critique the lesson.

The lesson took place towards the end of the children's first year in primary school (Grade 1) and in a relatively small inner-city school which works with a major University in Shanghai as a centre for teacher training. The class included 30 seven-year-olds, all equipped with textbooks and seated in rows of individual desks from where they could all see the projected slides and the teacher clearly. A class of 30 is fairly small for China, but this school aims for smaller classes and restricts entry to local children.

2.3 The lesson

The lesson plan for this chapter of the textbook focused on "Wang Mian Learns the Art of Painting", a simple text in Chinese characters with pinyin transliteration above. The plans for this text were broken down into two lessons of which this was the first. The main goals were for the children to imagine the scene, understand Wang Mian's hardship and his feelings about beauty, to learn to write one character, to read two new ones and to practice several identified, known characters. There were also specific key phrases and characters to be analysed.



Figure 1. Textbook page used in the lesson.

The lesson started with the class reciting a poem in unison, led by one of the pupils - one of 19 poems they would learn during that year. They already knew this one quite well and the emphasis was on expressive recitation. The children then greeted the teacher (*Ni hao Li Laoshi*- Good day teacher Li), bowed and sat, radiating attentiveness.

The first lesson goal was to stimulate interest in the story. Teacher Li introduced the title of the story (written on the board) with colourful projections of illustrations related to the story in the textbook, to create interest and atmosphere. The children all read the name of the main character from the screen and then suggested what the story might be about.

Next, Teacher Li wanted the children to gain a general understanding of the text. She read the text aloud, the children followed along and considered the question, "What do you learn about Wang Mian's

childhood?" The teacher read the story, with expressiveness and fluency. There was then a structured discussion session about the key points of the story. First the children talked very briefly in pairs, then children around the class offered points, building an account in turns, when they were chosen to speak. The children compiled a systematic and logical exposition of the text. The children then read the story out in unison. This was followed by individuals reading a phrase in turn, quickly, along the rows, in a fashion that made it clear this was a routine quick-fire activity. Teacher Li gave feedback, all praise, to individual children. She paid particular attention to the use of intonation at the end of phrases and the quality of pronunciation. By this point in the lesson, the children had already seen, and pronounced, the characters in this story and the pinyin above them, several times.

The lesson then focused on learning the meaning of the first part of the text, including how Wang Mian felt and it was accompanied by projected illustrations. The children re-read the section about Wang Mian's family, first silently, then aloud in unison, and then sentence by sentence, with individuals "reading round the class". The pupils answered questions about how Wang Mian felt about his poverty and how it limited his opportunities. The teacher then focused on the target characters, words, and phrases using flashcards and asked children to take turns to read them aloud. Some characters were written on the board and children "air wrote" the character, naming the strokes as they did this. They discussed the meaning of each one. Finally, the teachers brought the illustrations into the discussion and asked questions about what they showed.

This sequence was repeated to learn the second section of the text about what Wang Mian saw on a summer evening. The children read silently, then in unison about Wang Mian's evening view of the pool and lotuses. Then Teacher Li used flashcards of key phrases to ask the children to experience the light, sunset, height and smooth beauty of the lotus flowers. For each phrase, the children discussed the feelings the phrase aroused and the key features of target characters. They "air wrote" and then wrote the characters into their books.

The final section of the lesson involved the children reading sentences about the lotuses together in response to pictures on the screen. They then recited them individually and in pairs. The teacher focused on the fifth sentence and chose the character <code>neng</code> (能) - what it means, where it could be used and how it was pronounced correctly. The new character was then written on the board by the teacher and air written by the children. The teacher then gave out small sheets of paper for the children to practice writing <code>neng</code> - they concentrated hard for the few minutes allowed. The lesson concluded with advice about re-reading the passage, at home or in the breaks between lessons, and the children handed in their papers for marking. The children said a respectful goodbye in unison, but, as the teacher left, they crowded round, with several hugging her. The children were clearly "off duty" and chattered, played and ran around in the ten minutes before the next lesson.

The key impression from this lesson was the very high focus on the meaning of the text, on rapid, planned practice of character/sound matching and correct speaking and writing of characters led by the teacher. There was also a very clear concern for children's understanding and empathy with the story. The lesson was teacher-led and the children were on task for the whole 35 minutes - keen to reply to questions, contribute to teacher-led discussion and praise their fellow pupils.

3 RESULTS

3.1 A teacher-led lesson

The most striking features of this lesson were its teacher-led, fast-paced short activities and total pupil engagement. This is 'intensive teaching' (*jingjiang*) where the teacher expertly transmits the foundational knowledge and skills to the students before allowing them to reflect and apply what they had learnt. In some activities, pupils competed to pronounce phrases well. The class also did bursts of practice of reading, air writing whilst saying stroke names and writing characters. This practice included good models of pronunciation, swift correction of individuals, brief praise and strong links between the visual and verbal. This short lesson contained many opportunities for students to practice matching characters with sounds and focus on the technical features of the characters. However, this practice was so carefully structured that children did it in very short bursts and were not bored. Practice is a key learning activity in Shanghai with a very long history and a sound Confucian basis as a route to understanding for who could understand something they have not mastered? This has been written about by many Chinese authors:

We (Chinese teachers) have always believed that the idea of 'practice makes perfect' is not about rote learning and memorisation. ... Memory will lead to understanding, speed will lead to efficiency, strictness will lead to rationality, and repetition depends on variation. We try, through 'practice makes perfect', to strengthen basic training and constantly learn new things so as to achieve the purpose of innovative thinking. [18] (6)

Although Shanghai educational leaders have been very keen to understand foreign, especially western, educational policies and practices, educational development has been firmly underpinned by "Chinese characteristics" [19] and has valued the Chinese practices seen as successful. Since 2001, Shanghai has been promoting "quality-oriented education', including student-centred pedagogies, experiential learning and student engagement - in a Chinese style [20]. For example, increasing student engagement does not mean adopting western-style classrooms. Classroom discipline and the teacher retaining authority are cultural values that are shared by teachers, students and parents in Shanghai. So, as in this lesson, there is plenty of student engagement, within a structure shared by all and led by the teacher. Children answered questions about lotus flowers, the value of practice (of art), overcoming difficulty or about features of characters and radicals, and this talk was structured by the teacher and included discussion of Chinese values.

This lesson also showed some key Chinese teaching values. Chinese lesson planning, based on a pedagogy influenced by the Russian educator Kairov in the 1950s [21], demands the teacher prepare and conduct a lesson thoroughly by teaching the essential content students need to learn, expressed as "knowledge points", further divided into foundational points (jichudian), core points (hexindian) and difficult points (nandian) [22]. All these are identified in Teacher Li's lesson plan and require close study of the curriculum material as lesson preparation. This teacher clearly knew the text she was using very well, referring to particular phrases and directing children to particular forms of words, without needing to look at the text. A Chinese saying about teaching goes that 'to give a student a cup of water, a teacher should have a bucket of water'. As explained by a Chinese academic: 'It means a teacher should be familiar with not only the teaching materials, but also the wider background knowledge relevant to the teaching materials' [23] (97). In a "quality-orientated" education, the Shanghai teacher is expected to know the subject matter in great depth, understand the teaching principles and also to promote desirable emotions, attitudes and values in their pupils [24]. So it is no coincidence that this lesson involved discussion of the artist Wang's diligent art practice and how he had transcended the difficulties of poverty. The teacher also asked children to comment on other children's pronunciation, with all comments being positive, building a harmonious narrative. Some of the key features of this lesson, such as the use of multimedia resources, welcoming student participation, constructive critique of fellow students, and instilling the moral value of diligence, support the current curriculum reform to promote quality-oriented education to develop every student by fostering engaged learning, higher-order thinking and practical ability [19].

3.2 A Shanghai approach to teaching literacy

The way reading is taught in Shanghai is carefully planned and given a very high priority. This was one of the nine Chinese lessons of the week taught to this class using the approved textbook [25]. Teacher Li also had a weekly reading session with this class in the library, where pupils could select, discuss and read books they would take home. Teacher Li used this reading period to stimulate love of reading and to enthuse her children. She wanted them to be happy, confident learners. The class would cover the content of one textbook per semester (in a two-semester year), with each chapter including both a reading text (a poem, story or expository piece) and writing practice of new characters, though children were expected to have encountered, read and analysed new characters before learning to write them. There is an order of new character introduction based on frequency, to enable children to read independently as quickly as possible [13]. This is discussed in the teacher's handbook for these textbooks, which teach a Chinese national curriculum in ways that, Teacher Li explained, have a distinctive Shanghai approach - quite different from the approach in other areas of China [26].

One distinctive feature of the Shanghai approach is the method of teaching pinyin (the national system of using the roman alphabet to represent characters phonetically). Kindergartens and pre-schools in Shanghai are not supposed to teach literacy, because children are seen as too young [28]. So the first textbook of this first year of school (Grade 1) introduced pinyin gradually to the children, in the context of rhymes and texts. Teacher Li pointed out that this progressive way of teaching pinyin - in an integrated manner instead of drilling children in pinyin before they learnt characters - was designed to avoid boredom and made the learning of sound-symbol correspondences meaningful. It also recognises the reality of where children were starting their school learning, as almost all parents teach their children the

basics of pinyin before school [27]. In the first semester of primary school, a few sounds and letter combinations are included in each lesson, as part of work on rhymes and stories. By the time the children reached the lesson discussed in this article, the second textbook (and the text of this lesson) featured pinyin above each character so that children could work out the sound of the character, even if they did not know or had forgotten the character itself. In the first year of school the whole class learnt to read pinyin very quickly and had mastered a good range of characters, so they could read any texts with pinyin and some limited character texts.

This lesson reflected the values underpinning the pedagogy of reading in Shanghai. The children learnt technical features of Chinese, such as characters, parts of characters called radicals, the correct order of writing the strokes of the characters and correct pronunciation. They also learnt the technical features of pinyin - initials, finals and tones. At the same time, they learnt about the meaning of the text, the feelings of the characters, reading with expression and the importance of values, such as persistence. Teacher Li took great care to include all aspects of literacy in that her children learnt to focus on both comprehension and decoding, as well as empathy and the relevance of what they read. These priorities reflect the learning outcomes of the Ministry of Education curriculum, such as:

- 1 Pupils should enjoy reading, enjoy the pleasure of reading and develop the habit of taking good care of books.
- 2 Pupils should have the ability to use Mandarin to read aloud the text correctly, fluently, with emotion and learn to read silently [12].

The curriculum of Shanghai municipal province is embedded in the textbooks, and the textbooks are managed and reviewed by the Shanghai Municipal Education Commission. Even with such carefully managed textbooks, extensive lesson preparation was part of Teacher Li's working life because Chinese educational philosophy values text and teacher-centred mastery of content [28]. Teacher Li was part of a system that aims for teachers to constantly reflect on and improve their teaching skills, because the Chinese belief that "there are no students who cannot be taught well, only teachers who cannot teach well" (meiyou jiaobuhao de xuesheng, zhiyou jiaobuhao de laoshi) places a huge social responsibility on teachers. Teacher Li saw it as her responsibility to ensure her pupils learnt and were happy.

Shanghai teachers teach an average of 14.7 periods or 9.8 hours a week (in periods of 40 min) and spend an average of 7.8 hours a week preparing lessons [29]. As well as spending several hours a week preparing her lessons, Teacher Li also had a weekly meeting of her 'lesson preparation group' (beikezu) to plan lessons together, and ensure continuity and progression in lesson plans. Lesson planning is an important collegiate activity. Teacher Li taught two classes of Grade 1 Chinese, but there were eight classes in the year group, so the teachers worked together to understand the material and plan the most effective teaching approaches and resources, such as the slides and music for writing practice. The teachers also had marking to do. For example, the sheets of character practice of neng in this lesson would be marked to help Teacher Li understand who was finding difficulties with this character. If a child was struggling, Teacher Li would see him or her individually and, sometimes, do group sessions before school, during the ten-minute breaks between lessons or at lunchtime so that the child did not experience failure or fall behind their peers. These sessions usually took place in her office, a large room for all the Grade 1 teachers, with booths for individual teachers. Teacher Li spends much of her working day here - marking, studying the curriculum and preparing lessons, meeting students, talking to parents on the phone or via Wechat.

Sometimes, she admitted, she would ask parents to do a little practice if a child was struggling, even though, in Shanghai, no homework is set for pupils in Grades 1 and 2 (age 6 and 7). The innovative removal of homework for the first two years of primary school, particular to Shanghai, is part of a wider reform aiming to reduce pressure on young children and foster their love of learning. This includes a "preparation for learning" period (*xuexi zhunbeiqi*) at the start of the year [30]. Teacher Li did not expect Grade 1 or 2 children to do more than prepare for lessons and review lessons by re-reading the text, usually with their parents. However, Teacher Li was conscious that many parents provided their own homework and sent their children to additional classes.

She was confident she could contact parents and engage their help at any time and they contacted her by Wechat and phone often and at any time. In China, the education of children is considered a family activity, conducted in cooperation with teachers and, based on Confucian principles, children honour teachers as highly as their parents [31]. This means Teacher Li experienced high expectations from parents but also positive beliefs about her role and status. Children were respectful in class and parents tried to work with teachers, who they expected to have their child's best interests at heart.

4 CONCLUSION

In England, the achievements of Shanghai and other Asian cultures who perform well in international tests caused a focus on Shanghai maths teaching, but have drawn no attention at all to Shanghai reading teaching. Yet this one lesson and its context suggest that there are things Westerners can learn about the teaching of reading at several levels. The lesson discussed in this article was judged as good enough to be displayed in public, and in it, teacher Li demonstrated a standardised, but sophisticated, pedagogy of reading. Her lesson demonstrated the practices and priorities of reading teaching in Shanghai but also reflected the values and principles that made such teaching possible.

This lesson showed that teachers and policy makers in Shanghai see reading as a process of both meaning making and decoding, from the very beginning of the children's learning. The teacher prepared the lesson very carefully to ensure that children did not lose focus on the meaning of the text when they were learning the carefully selected language elements, reflecting priorities in the curriculum requirements at national and provincial levels. This approach is also written into the municipality-approved textbook used in this lesson. The successful use of pinyin to enable fluent reading early, emphasis on comprehension, teacher-led library periods and extra-curricular reading requirements suggest that reading is a priority for Chinese schools.

This lesson also drew on a long tradition of memorisation and practice in Chinese education and showed how this is done in very short bursts and predictable activities within a lesson focused on the content of the texts. The teacher not only planned but directed all aspects of the lesson so that children saw and experienced success and were completely engaged. This approach is possible because of the working conditions of Shanghai teachers, whose workload includes time for marking, work with individuals and groups and professional development. Moreover, teachers can take for granted the wholehearted support of parents in the shared endeavour of teaching reading.

England is recognising that the current school testing regime is "affecting the wellbeing of both pupils and teachers" [32]. In Shanghai, the policy for teaching reading shows a determination to move away from tests and embrace a wider assessment, led by teachers. The teacher in this class is a member of a respected professional group who prepares her lesson in collaboration with colleagues and takes part in a school-based research group. She has a degree in teaching Chinese and prepares lessons in great detail. Teacher professional development is collective, collaborative, community-based and focuses on classroom-based inquiry and learning, characteristics identified in successful professional development worldwide [33], [34].

This lesson has provided a window into some of the cultural values underpinning teaching reading in Shanghai. It is the product of the high value placed upon teachers by parents and society, manifest in their working conditions. The lesson is an example of the Chinese view of teaching as promoting deep learning and social harmony and, therefore, of the overwhelming importance of both children and education in society. The actions that result from these values, such as Shanghai's attempt to reduce pressure on young children, result from and sustain the subject-focused, values-led teaching seen in this lesson.

Because of its success, Shanghai has been identified as a system to learn from [35]. However, in considering learning from such a system, it is not enough simply to "borrow' practices. The account of this lesson has tried to show that the systems underpinning this lesson were based on a particular set of shared values, expectations and beliefs about the world and education within it. It has been argued [36] that policy learning from international comparisons should be about exploring and, where appropriate, emulating values and principles rather than importing or copying policies or practices. To learn about the teaching of reading from a successful system like Shanghai, this account of Teacher Li's lesson suggests that we in the UK might do well to begin with an examination of the principles and values upon which we base our own teaching of reading.

REFERENCES

- [1] OECD. PISA 2012 Results in Focus: What 15-year-olds know and what they can do with what they know, Paris: OECD, 2014. Retrieved from http://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf
- [2] OECD, *PISA 2015 Results in Focus*, Paris: OECD, 2016. Retrieved from http://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf

- [3] Department for Education (DfE), Research evidence on reading for pleasure: Education standards research team, 2012. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284286/reading for pleasure.pdf
- [4] N. Wu, Shanghai's permanent population exceeds 24 million, *China Daily*, 27th February, 2014. Retrieved from chinadaily.com.cn
- [5] J. Liu, "Hu Biaozhun Luegao, yi ernianji yao xuehui xie 1000 gezi" (Shanghai curriculum standard is slightly higher, Grade 1-2 should be able to write 1000 characters), *Youth Daily*, February 2, 2012. Retrieved from http://app.why.com.cn/epaper/gnb/html/2012-02/02/content 18492.htm?div=-1
- [6] M. Chen and J. Yuen, J., "Effects of Pinyin and Script Type on Verbal Processing: Comparisons of China, Taiwan, and Hong Kong Experience", *International Journal of Behavioral Development*, vol. 14 no. 4, 429-448, 1991.
- [7] J. Wang, "Zai lun Hanyu Pinyin fang'an shi zuijia fan'an" (On Hanyu Pinyin Scheme as the Best Scheme Again). *Yuyan wenzi yingyong*, vol. 2, 1–9, 2003.
- [8] J. DeFrancis, "Digraphia", WORD, vol. 35, no. 1, 59-66, 1984.
- [9] Y.C. Ding, N. Li, and Q.E. Bao, "Zhuyin shizi, tiqian duxie shiyan baogao" (The report on Pinyin annotated character recognition that promotes earlier reading and writing). *Yuwen xiandaihua*, no. 8, 134–48, 1985.
- [10] L.Q. Tong, and Y.Q. Zhang, "Chongfen fahui Hanyu Pinyin zai yuwen jiaoxue zhong de zuoyong" (To put the Hanyu Pinyin into full play in Chinese education), *A Pedagogy for Digraphia* no. 413, 1988.
- [11] National Ministry of Education, *Xiaoxue Yuwen Jiaoxue Dagang (The Chinese Language Teaching Outline for Primary Schools)*, Beijing: Renmin jiaoyu chubanshe, 2000.
- [12] Ministry of Education (MoE). Yiwu jiaoyu yuwen kecheng biaozhun[Chinese Curriculum Standard of Full-time Compulsory Education], Beijing: Beijing Normal University Press, 2011.
- [13] Shanghai Education Committee (SEC), Shanghai shi xiaoxue yuwen xueke jiaoxue jiben yaoqiu (shiyan ben 2017) (Basic requirements for teaching Chinese subject in Primary school of Shanghai), 2017. Retrieved from http://www.xhedu.sh.cn/cms/app/info/doc/index.php/346462
- [14] R. Nisbett, *The geography of thought: How Asians and westerners think differently and why.* Free Press: New York, 2003.
- [15] D. Wong, "Comparative philosophy: Chinese and western". In *Stanford Encyclopedia of Philosophy*, (E.Zalta, ed.) 2005. Retrieved from https://plato.stanford.edu/entries/comparphil-chiwes/
- [16] Y. Zhao, G. Zhang, W. Yang, D. Kirkland, X. Han, and J. Zhang, "A comparative study of educational research in China and the United States", *Asia Pacific Journal of Education*, vol. 28, no. 1, 1–17, 2008.
- [17] P. Dudley, P. Lesson Study: Professional Learning for our time, London, Routledge, 2015.
- [18] L. Ye, "New Basic Education and me Retrospective notes from the past ten years of research", *Frontiers of Education in China*, vol. 4, no. 4, 558–609, 2009.
- [19] C. Tan, Learning from Shanghai: Lessons on Achieving Educational Success. Singapore: Springer, 2013.
- [20] Z. Shen, "Shui tuoqile Shanghai jichu jiaoyu de dipan (Who has held up the chassis of Shanghai basic education?)", Shanghai Education, vol. 5, no. 3A, 20–21, 2011.
- [21] N. Kairov, *Theory of Education*, Beijing: People's Education Press, 1957.
- [22] H.C. Huang, "Keyan: Beike de zhuolidian (The rallying point of lesson preparation)", *Journal of The Chinese Society of Education*, vol. 10, 86-87, 2012.
- [23] G. Chen, *Kecheng shihua (Honest words about curriculum)*, Shanghai: East China Normal University, 2009.
- [24] B. Jensen, K. Roberts-Hull, J. Magee, & L. Ginnivan, *Not So Elementary: Primary School Teacher Quality in Top-Performing Systems*, Washington DC: National Center on Education and the Economy, 2016.

- [25] Shanghai Curriculum Reform Committee (SCRC), *Hujiaoban yinianji Yuwen xiace (Jiunian yiwu Jiaoyu keben)*, Shanghai: Shanghai Educational Publishing House, 2015.
- [26] Y. Liu, "A pedagogy for digraphia: An analysis of the impact of pinyin on literacy teaching in China and its Implications for curricular and pedagogical innovations in a wider community", *Language and Education*, vol. 19, no. 5, 400–414, 2005.
- [27] H. Li, X. Wang & J. Wong, "Early childhood curriculum reform in China: Perspectives from examining teachers' beliefs and practices in Chinese literacy teaching", *Chinese Education and Society*, vol. 44, no. 6, 5–23, 2011.
- [28] B. Cai & Y. Jin, "Woguo jichu jiaoyu gaige de xianshi jingyu yu weilai jueze (Realistic circumstances and future choices of reforms in basic education in China)", *Journal of Shanghai Normal University* (*Philosophy & Social Sciences Edition*), vol. 39, no. 1, 92–102, 2010.
- [29] Jiefang Ribao, Shanghai tongji: Zhongxiaoxue jiaoshi zuida yali yuanzhi 'fen-fen jijiao' (Shanghai statistics: Secondary and primary school teachers' greatest pressure originates from 'every mark counts'), September 8, 2011. Retrieved from http://www.wyedu.net/show.php?contentid=10851.
- [30] Shanghai Education Committee (2008). Shanghai shi xiaoxue xuexi zhunbeiqi jiaoxue zhidao yijian (Teaching guidance for the "preparation for learning" period of Primary school of Shanghai). Shanghai: Shanghai Educational Publishing House, 2008. Retrieved from http://www.shmec.gov.cn/web/redirect.html?rec=44936
- [31] L. Xun, Hanyu zuowei di'er yuyan jiaoxue jianlun (Teaching Chinese as a Second Language), Beijing: Beijing Language University, 2006.
- [32] S. Weale, "More primary school children suffering stress from Sats, survey finds", The Guardian, May 1st, 2017. Retrieved from https://www.theguardian.com/education/2017/may/01/sats-primary-school-children-suffering-stress-exam-time
- [33] M. Garet, A. Porter, L. Desimone, B. Birman & S.Y. Kwang, "What makes professional development effective? Results from a national sample of teachers", *American Educational Research Journal*, vol. 38, no. 4, 915-945, 2001.
- [34] E. Villegas-Reimers, *Teacher Professional Development: An International Review of the Literature*. Paris: UNESCO, 2003.
- [35] D.H. Hargreaves, A Self-Improving School System in an International Context, Nottingham: National College for School Leadership, 2011.
- [36] R.J. Alexander, "International evidence, national policy and classroom practice: questions of judgement, vision and trust", Keynote address at the Third Van Leer International Conference on Education, Jerusalem, 24 May, 2012. Retrieved from http://www.robinalexander.org.uk/wpcontent/uploads/2014/05/Alexander-Jerusalem_Canterbury.pdf