Weaving Chinese knowledge into a case study of Australian Research-Oriented School-Engaged Teacher Education Program
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Abstract
Australian universities are increasingly focusing on internationalisation, but have not made transnational knowledge exchange a strategic focus. This paper argues that the bilingual/multilingual competence of international students is an asset not a deficit. It reports a case study of the Research-Oriented School-Engaged Teacher Education (ROSETE) program, which is an international collaborative project for training bilingual teacher-researchers. Conceptually, this study is framed in terms of ‘Chinese knowledge’. Seven teacher-researchers who participated in this Program were interviewed about their Mandarin teaching experience in Australian public schools, especially their perspectives on using Chinese knowledge in their Master of Education (Honours) theses. Their theses were analysed to explore evidence of using Chinese knowledge including their use of Pin-yin, Chinese characters (Hanzi), Chinese stories, concepts and theories.

Introduction
The field of research related to the education of international Higher Degree Research (HDR) students has been engaged in a lively debate over the use of students’ intellectual resources such as non-western theories (Singh & Chen, 2011). In particular research on language and identity (Pavlenko, 2003) suggests that contemporary theories of bilingualism provide a new angle to allow international HDR students to view themselves as genuine uses of two or more languages rather than as unsuccessful native English speakers. This has stimulated investigations of research education programs and pedagogies to make educational use of international HDR students’ bilingual competence (Han & Zhao, 2008; Singh & Guo, 2008; Zhao & Han, 2007). This paper reports a case study of the Research-Oriented School-Engaged Teacher Education (ROSETE) Program, which is an Australia-China collaborative professional development project for training bilingual teacher-researchers from China. Conceptually, the paper begins by framing the study in terms of ‘Chinese knowledge’.

Conceptualising of Chinese knowledge

An important feature of internationalising higher education in Australian is the increasing number of international students from Asia, especially from China (Han & Zhao, 2008). Australia has the highest percentage of international students in higher education in the Organisation for Economic Cooperation and Development (OECD) countries, and about one-quarter of international students enrolling in Australian higher education is from China (Bradley, Noonan, Nugent & Scales, 2008). However, in Australia as in other OECD countries, there remains a trend to marginalise the intellectual resources available to international students from China (Singh & Chen, 2011). Typically, these international students are being labelled as ‘non-English background speakers’ or as ‘speakers of English as a foreign language’ (Pavlenko, 2003). However, their bilingual competence, which provides them the means for accessing diverse source of knowledge both in
English and Chinese is overlooked. Further, there is a lack of interests in Chinese knowledge among Western-Anglophone academics (Singh & Chen, 2011).

However, recognising the significant link between multilingualism and transnational knowledge exchange, Singh (2010) challenges the idea that knowledge largely flows from the Minority to the Majority World, from Western to non-Western countries. He argues for the concept of global ‘multilingual knowledge economies’ (Singh, 2002), which makes problematical the monolingual Anglophone assumptions underlying notions of knowledge society, knowledge economy and knowledge workers. He points out that with the rise of China as an economic power, it is increasingly accepted that ‘Chinese knowledge’ has been playing an important role in the multilingual knowledge economy, but he also contends that what counts as ‘Chinese knowledge’ is complicated. However, educational research related to transnational knowledge exchange suggests that ‘Chinese knowledge’ can be defined by exploring three closely related fields.

First, Chinese knowledge may be regarded as being linked with Chinese language and culture. Singh (2010) argues that the global financial crisis has demonstrated just how central of China is to the global economy and its politics. China’s consumer culture and its production of trans-national culture are seen in the emergence of Mandarin, both its spoken and written forms, as a ‘global language’. The increasing global significance of Mandarin lies in the knowledge it provides to the world’s multilingual knowledge economies. Singh (1996) argues that learning Chinese language and culture provides an opportunity for Australian students to engage Chinese people and their knowledge, opening their way to engaging the rich and diverse intellectual heritage of China. Learning the Chinese language enables Westerners to gain access to Chinese knowledge and the meanings they assign to the social, economic and cultural dimensions of their lives, through different Chinese perspectives.

Second, Chinese knowledge can be defined in relation to Chinese ideas such as Chinese idioms like ‘Chengyu’. In their research into the use of ‘Chengyu’ to connect intellectual projects across ‘peripheral’ nations, Singh and Han (2009) explored how to engage Chinese knowledge through Australian education research. They used a co-operative approach to document a Chinese HDR student’s experiences of integrating her Chinese knowledge of Chengyu into her research in Australia. Their study indicates that the use of Chengyu in Australian education research met with contrasting responses from Australian researchers. It was found that not all Australian researchers shared the same orientation to the articulation of Chinese knowledge in Australian educational research.

Third, Chinese knowledge is closely linked with non-Western theories. Singh and Chen (2011) indicate that there are gaps between the ideas of internationalising Western curricula and the research education of international HDR students from non-Western countries. They demonstrate the possibility that Western, Anglophone research education programs and pedagogies can
encourage Chinese HDR students to use Chinese to access Chinese conceptual tools for their own research. Pedagogically, they posit that these HDR students are bilingual and can use their diverse communicative repertoires to provide a means for having them to use these to make original contributions to knowledge. They argue that the interactions between Western and non-Western theories can facilitate international HDR students’ contributions to the transnational exchange of non-Western theories. They also suggest that analysis of studies by international HDR candidates from China is useful for identifying empirically the characteristics of ‘Chinese knowledge’. The next section examines an Australian research education program that aims to engage Chinese knowledge theoretically.

Research-Oriented School-Engaged Teacher Education program

The Research-Oriented School-Engaged Teacher Education (ROSETE) Program is Australia-China collaboration for preparing bilingual teacher-researchers from China. It is built on a Memorandum of Understanding (MOU) among the State of New South Wales by its Department of Education and Training (NSW DET); the People’s Republic of China Ningbo Municipal Education Bureau (NMEB) and the University of Western Sydney. The aims of the ROSETE Program are to promote the study of Chinese (Mandarin) and Chinese culture and society in NSW DET schools; and to develop the Chinese HDR students capabilities as bilingual-teacher-researchers through the incorporation of Chinese knowledge in their research (Singh & Zhao, 2008; Zhao & Singh, 2008).

The ROSETE Program has three distinctive characters (Zhao & Singh, 2008). First, it involves a strategic alliance between an Australian university, an Australian education department, and education authorities in China. Second, the aim of the program is to develop HDR students from China to be bilingual teacher-researchers. Third, pedagogically the program emphasises the challenges of bringing about Western intellectual engagement with non-Western theoretical resources through encouraging Chinese HDR students to use bilingual competence to critically analyse their data about Australian education systems.

The ROSETE is an engaged research education program (Singh, 2010), which is anchored by, and engages workplace knowledge through the Chinese HDR students undertaking teaching of Mandarin in NSW DET public schools, and making their teaching as the focus of their research studies. In this way the teacher-researchers develop knowledge about the Australian education system from the teaching profession, from their academic studies and research investigations. The ROSETE program makes these distinct forms of knowledge the teacher-researchers have to engage as part of their research education.

The ROSETE Program is also a team-based research education program (Singh, 2010). It involves weekly research team meeting to discuss issues related to HDR candidates’ teaching and
research, structured one-on-one tutorials between HDR candidates and their principal supervisors, inter-university video-conferencing about intercultural learning and research, research seminars addressing co-authored papers written by the ROSETE team, and weekly research training workshops focusing on research methods, research literacy and transnational knowledge exchange.

**Research method**

Given the debate over the place of Chinese knowledge in Australian educational research (Singh & Chen, 2011), the research questions guiding this study are: How did Chinese HDR students who participated in the ROSETE Program weave Chinese knowledge into their research about Australian education? What are their perspectives on being bilingual teacher-researchers? To answer these ‘what and why’ oriented questions, case study method of data collection and analysis was considered appropriate for this investigation (Merriam, 2009; Yin, 2009).

The participants for this study were seven of the 26 HDR students from China, who participated in the ROSETE Program under the MOU between NSW DET, NMEB and UWS. They were working as volunteer Mandarin teachers in NSW DET schools to stimulate Australian students’ interest in learning Mandarin, while they were undertaking a Master of Education (Honours) degree at UWS. Their teaching in schools was the central focus of their research and research education. After receiving approval from the University Human Research Ethics Committee, a letter of invitation and consent form was provided to seven ROSETE students who voluntarily agreed to participate in the project reported in this paper. For reasons of confidentiality, the colours of the rainbow were chosen as pseudonyms for each of the HDR students. In Pinyin and Chinese characters (Hanzi) these are Hong (红red); Cheng (橙orange); Huang (黄yellow); Lv (绿green); Qing (青blue); Dian (靛indigo); Zi (紫violet).

The seven ROSETE students were interviewed via emails about their Mandarin teaching experiences in Australian public schools; the benefits to their employment of coming to see themselves as bilingual; their professional research training to encourage the uses of bilingual knowledge in their theses, and their perspectives on using Chinese knowledge in their Master of Education (Honours) theses. Their theses were analysed to explore the evidence of their bilingual competence. The concept of ‘Chinese knowledge’ was used as an analysis tool for data analysis. The acknowledgment of the importance of Chinese knowledge to their research, and their use of Pin-yin, Chinese characters (Hanzi), idioms, stories, concepts, metaphors and/or theories were used to code and categorise the data.

**Perspectives on being bilingual teacher-researchers**
The evidence analysed here concern Chinese HDR students’ perspectives on being positioned as bilingual teacher-researchers through ROSETE Program in terms of improving their English language proficiency (including speaking, reading, writing and listening), developing their identity as bilingual teacher-researchers, and being able to use Chinese knowledge in research. All of the seven ROSETE students provided answers to the questions. Overall they praised on the ROSETE program highly for improving their bilingual capabilities and encouraging them to use Chinese knowledge in their research.

In terms of improving English capability, Hong reported her development through the ROSETE Program:

Before I came to Australia, my (English) ability of speaking and listening was good. Reading was OK. Writing was terribly poor. Constructing a thesis of 50,000 words seemed to be an impossible job for me. My principal supervisor did far more than he should to help me not only with my poor writing ability but the research techniques as well. His patience and encouragement made me feel comfortable to show my poor writing to him. He respected my way of writing even though there were grammar mistakes everywhere. He helped me with my reading and writing to construct my thesis. The supervisory panel was of great help for me to improve my understanding of research. They encouraged me to read more articles and books which was beneficial for me to improve my reading and writing. The teaching in schools helped me to communicate with students and listen to students. Therefore, my ability of listening and speaking in English was improved through communicating with students in school and supervisors at the university.

For Hong the ROSETE Program provided an opportunity for her to improve English ability. Similarly, she indicated her improvement in her bilingual ability through the ROSETE Program:

Using my second language to teach students my mother language was helpful for me to build up my identity as a bilingual speaker. Before I came to Australia, my major was English. I recited a lot of English articles and remembered a lot of English words to improve my English as a second language. During four years at Ningbo University, I spent much time learning English. I did not write Mandarin for a long time. It was hard for me to write Mandarin when I graduated from Ningbo University. I did not realise it was a problem. On the contrary, I was proud. The ROSETE Program helped me to understand the importance of learning Mandarin. Using English to teach Mandarin improved my bilingual capabilities.

Apparently the ROSETE Program provided an opportunity for Hong to teach Mandarin and Chinese culture to Australian students, which promoted her motivation to improve bilingual capabilities. With regard to using Chinese knowledge in her thesis, she pointed out:

My supervisory panel were interested in Chinese knowledge, such as Chinese language and Chinese concepts. I knew that they respected our Chinese culture because they encouraged us to use Chinese concepts in our research. In my teaching in schools, I learnt that students think learning Mandarin is so cool. Year 8 students were interested in Chinese popular music, Chinese movies and Chinese food. Their positive attitude
towards learning Chinese engaged me in teaching and learning Mandarin. In my research, I used Confucius heritage to define Chinese learners. I used Chinese concepts to express the importance of rote-learning. I also used Chinese values to argue the importance of education in China.

Hong’s experience of using Chinese knowledge to her teaching and research highlighted the influence of the ROSETE Program on her understanding the importance of being a bilingual teacher-researcher. Other HDR students had similar experiences, as Cheng indicated:

At the beginning of teaching and studying in Australia, I encountered the problem of identifying myself. I was at sea until I found my own position. I am an L2 user. I do not have to be a native speaker or question my English speaking eligibility as a non-native speaker. I am different from native speakers. I have a different background and ways of using and learning that language. The most important thing is being confident about my bilingual capability and to use it communicate with others. I really did not have to bother myself. As soon as I found my own position and viewed myself positively, my teaching and research were greatly facilitated.

Cheng’s report addresses the important influence of the ROSETE Program on HDR students’ bilingual identity, which provided the opportunity for them to identify as bilingual teacher-researchers rather than speakers of English as a foreign language. In terms of using Chinese knowledge, Cheng reported:

In my teaching in order to increase the opportunity for target language speaking and at the same time create a Chinese style classroom, I greeted students in Chinese through a common way as used in Chinese schools. To increase their cultural experiences, I taught students Chinese calligraphy, paper folding, cooking, and using chopsticks. I brought different Chinese snacks for students to taste, taught Chinese games and kite making. I also let students know about modern 21st century China through learning about Chinese students’ life, daily life in Beijing and Chinese pop music and stars, as well as some famous places. Cultural linkages were carried out through teaching the target language such as bargaining, lucky numbers, the meaning of different colors in Chinese opera, and birth traditions in China.

In contrast to Hong’s report, Cheng’s understanding of Chinese knowledge focused on her teaching of Chinese language and culture. Other ROSETE students addressed both the improvement of their English and Chinese capabilities, as revealed by Zi:

From my experience of being a bilingual teacher-researcher, I have gained the impression that my English has improved greatly. First, I appeared to be more confident in English communication. This was derived from my practice of teaching in the schools. More importantly, it was because of my devoted supervisors from UWS - the supervisory team in particular. Their great patience, excellent guidance and appreciation encouraged me to strive from excellence. Confidence is so important in learning a second language. From the regular meetings, we have developed collaborative skills in learning. My bilingual capabilities have greatly facilitated my teaching and learning. I am greatly indebted to this Program to let me have this chance to develop my bilingual skills. As to my research, I have incorporated Chinese philosophy – Confucius’s ideas into my thesis.
and used a Chinese educationalist Tao Xingzhi’s story to explain my understanding of appreciative teaching.

In summary, the analysis of the interview data from ROSETE students suggested that the ROSETE is an engaged research education program (Singh, 2010) that goes beyond the limitations of both the ‘apprentice master’ and ‘collaborative cohort’ models of supervision (Burnett, 1999). This provides Chinese HDR students a platform to develop their bilingual skills and an opportunity to use Chinese knowledge in their Australian teaching and research practices.

Evidence of being bilingual teacher-researchers from theses

The evidence of being bilingual teacher-researchers analysed here is drawn from the seven ROSETE students’ Master of Education (Honours) theses. The focus of the data analysis was on weaving Chinese knowledge into their Australian education. The key themes emerged from the coding of their theses included their acknowledge of the significance of their bilingual competence for their research, using pinyin and/or hanzi, using Chinese stories including their own autobiographical stories, using Chinese idioms such as Chenyu and Suyu, using Chinese concepts, metaphors, and Chinese theories are summarised in Table 1.

<table>
<thead>
<tr>
<th>Name</th>
<th>Significance</th>
<th>Pinyin/Hanzi</th>
<th>Idioms</th>
<th>Story</th>
<th>Concept/metaphor/theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong</td>
<td>Contribute to the argument</td>
<td>Both</td>
<td>Chengyu &amp; Suyu</td>
<td>Life story &amp; education experience in China</td>
<td>The relationship between Chinese learner and learning Chinese characters</td>
</tr>
<tr>
<td>Cheng</td>
<td>Key to understanding concept of the teacher</td>
<td>Both</td>
<td>Suyu</td>
<td>Stories of education experience in China</td>
<td>教书育人; 因材施教 Chinese educational philosophy and pedagogy</td>
</tr>
<tr>
<td>Huang</td>
<td>Contribute to the title of the thesis</td>
<td>Both</td>
<td>Suyu</td>
<td>learning experience in China</td>
<td>西游记Chinese tale: Journey to the West &amp;</td>
</tr>
<tr>
<td>Lv</td>
<td>Influence on the beliefs about teaching &amp; learning</td>
<td>Both</td>
<td>Suyu</td>
<td>Story of a second language learner</td>
<td>梅兰竹菊 Chinese metaphor</td>
</tr>
<tr>
<td>Qing</td>
<td>Contribute to the topic of</td>
<td>Both</td>
<td>Suyu</td>
<td>Life story in China</td>
<td>Traditional Chinese view of environment</td>
</tr>
</tbody>
</table>
The significance of bilingual competence

All seven ROSETE students recognised the importance of their bilingual competence for accessing Chinese knowledge which they could use to contribute to their research. For example, Zi used Chinese idioms to explain why she selected appreciative education as her research topic: “All these Chinese sayings pursue the essence of appreciation and argue the necessity of upholding it” (Zi, 2010, p. 3). Similarly, Huang pointed out the importance of Chinese knowledge to her research: “In this study, I conceptualised my experience in Australia as my ‘journey to the west’” (Huang, 2010, pp.1-2). Dian provided a more detailed explanation of her use of Chinese knowledge:

The tools and signs in this narrative were Chinese idioms, my teaching experience in Australia, and my reflective journal. The Chinese idioms I learnt helped me to think through the process ... English is my second language. In my reflective journal, I used both English and Chinese. The reason for combining the two languages was that I wanted to use my writing as a pure tool for thinking. Chinese, my native language, was used to express some feelings and ideas that were hard to express in English (Dian, 2010, pp. 132, 137).

All these quotations suggest that encouraging the ROSETE students to use their bilingual competence had a powerful influence on their research in Australia. The ROSETE Program encouraged them to weave Chinese knowledge into their research into Australian education.

Using Chinese Language

From the analysis of the ROSETE students’ theses, it was found that their uses of the Chinese language include Pinyin, Hanzi, and idioms. For instance, Hong used more than fifty different Chinese idioms in her thesis to express her understanding of Chinese learners and Chinese education. The following is an example:

<table>
<thead>
<tr>
<th>the thesis</th>
<th>Suyu &amp; Chengyu</th>
<th>Story of learning experience in China</th>
<th>Story of a Chinese educator &amp; learning experience in China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dian</td>
<td>Contribute to reflective journals</td>
<td>Both</td>
<td>Both</td>
</tr>
<tr>
<td>Zi</td>
<td>Contribute to the topic of the research</td>
<td>Both</td>
<td>Both</td>
</tr>
</tbody>
</table>
There is a popular saying, ‘只要功夫深，铁杵磨成针’ (zhì yào gōng fǔ shēn, tiě chuō mó chéng zhēn). It means that “if you make an enough effort, you can grind an iron pillar into a needle” (Jin & Cortazzi, 2006, p. 12). Chinese people think highly of rote-learning or repeating what they are to learn as a way of promoting understanding. Another old saying is ‘书读百遍，其意自现’ (shū dú bǎi biàn, qí yì zì xiàn). Literally, it means if you read a book one hundred times, you will eventually understand its meaning through repetition. Essentially, it means that if you internalise and memorise the input, you will understand the meaning in reflective practice later. On (1996, p. 36) argues that there are four basic components of learning according to Confucian tradition: “memorising, understanding, reflecting and questioning”. Memorisation precedes understanding and leads to deeper understanding (Hong, 2010, p. 21-22).

Hong’s use of Chinese idioms expressed important characteristics of Chinese learners and Chinese educational philosophy. Other ROSETA students shared similar ideas, as indicated by Dian’s comment:

In Chinese culture, there is no lack of moral sayings from ancient times which are meant to encourage students to be active learners, such as 不耻下问 bu chí xià wèn (do not feel ashamed to ask and learn from others); 勤学好问 qín xué hào wèn (diligent and inquisitive); 三人行必有我师 san rén xíng bì you wǒ shī (two heads are always better than one) ... These sayings reassured me that I should not hesitate to discuss concerns or difficulties with others (Ding, 2010, p. 112-113).

Dian’s uses of Chinese idioms highlighted the influence of Chinese language on ROSETA students’ teaching and research. This was echoed by other from ROSETA students including Lv who pointed out:

As their teacher, I realised my responsibility to help students fully develop their potential for learning. I never experienced such a responsibility prior to this. An old Chinese saying depicts the teaching-learning relationship as 30% teaching plus 70% learning (三分教，七分学; Sān fèn jiào, qī fèn xué), which indicates the importance of the students’ learning efforts in achieving their academic goals. I was not sure whether my journal indicated that the teacher should take responsibility for learning, but this was reflected in the early days of my language methodology training course, when we were asked a question about who should take the responsibility for learning, teacher or student? The answer was the teacher, which was opposite to Chinese beliefs (Lv, 2010, p. 95).

The above quotations indicated that the Chinese language contains rich educational knowledge related to learning, teaching and research. This was a powerful influence on these ROSETA students’ thinking about how to learn, to teach and undertake research.

Using Chinese stories

All ROSETA students used stories in their theses including their personal education experiences in China and traditional Chinese educational stories. One of them used a famous Chinese story in the title of her thesis. As Huang explained:
There is a Chinese tale which is commonly known as Monkey King in Western countries. The literary name of this novel is translated as ‘Journey to the West’ (xī yóu jì, Mandarin: 西游记). It is a series of legends about Xuanzang, a Buddhist monk’s pilgrimage to India aiming to acquire Buddhist religious texts. In this journey, Monkey King, the apprentice of Xuanzang, is a key figure in the eventual success of this journey. In this novel, there are scenarios parallel to my own journey as a new foreign teacher and researcher in Australia. First, Monkey King is chosen by his head, Guanyin (the Bodhisattva associated with compassion) to accompany Xuanzang on the journey. According to Guanyin’s request, Monkey King’s mission is to help the Monk fight against demons and ensure the bringing back of Buddhist scriptures from a foreign land-India. In my case, I was also sent on a mission in my journey to a foreign country-Australia. According to the Ningbo (the city where I was educated in China) agreement with Western Sydney, as a Volunteer Teacher Researcher, my mission in Australia was to promote Mandarin teaching in NSW and bring knowledge of education and the skills of bilingual teacher leader back in Ningbo, China.

Another parallel scenario is that the Monkey King encounters a series of episodes on a new “continent” characterised by different magical monsters or evil magicians which he has to confront with during the journey. Since I arrived in Australia as a Mandarin teacher, I have also entered a new continent, both a ‘policy continent’ (the cultural and policy context of Chinese teaching in Australia) and an ‘intellectual continent’ (Communicative Language Teaching and L2 teaching in general) (Huang, 2010, p. 1).

The Chinese story provided considerable insights into Huang’s educational journey in Australia, and inspired her motivation to undertake this research. Similarly, Zi used an education story to begin her thesis:

Tao Xingzhi is a great Chinese educationalist. He spared no effort through his life to make an indelible contribution to the causes of education, liberation and democracy. Most importantly, he founded the theory of Life Education, laying the spiritual foundation for the reform and development of Chinese people’s education … Tao Xingzhi’s ideas on education exert great influence on me. What follows is an educational story that is very popular and instructional. I would like to share this with you.

Four candies

One day, a principal (Tao Xingzhi) saw a student throw mud at others. He immediately stopped this behaviour and asked the student to come to see him after class.

After class, when the principal came back to his office, he found the student waiting for him. He took out one candy and gave it to the student, saying “This is for you because of your punctuality while I was late.” The student received the candy doubtfully. Then Tao Xingzhi took out another candy and put it on his hands. He said, “This is for you because when I asked you to stop throwing mud, you immediately followed my instruction and this means you respect me!” After that, he gave the student a third candy, saying, “I have investigated the issue. You were throwing mud at others because they bullied some girls. This is showing your integrity. You have the courage to fight for bad people.” This time, the student burst out crying: “I was wrong. They are not my enemies, they are my classmates.” Tao Xingzhi smiled pleasantly and at the same time he took out a fourth candy and rewarded him: “You deserve this because you recognize your mistake and bravely accept it. That is all my candies and our talk is now over!” said that principal.
This story is enlightening. I believe people in Australian society also expect others to appreciate them for their study, work and good character (Zi, 2010, p. XI-XII).

The two Chinese stories cited here express the link between ROSETE students’ educational research in Australia and their Chinese intellectual resources.

Using Chinese concepts, metaphors and theories

From the analysis of ROSETE students’ theses, it was found that all of them used various Chinese concepts, metaphors and theories to express their ideas related to their teaching, learning and research. For example, Zi indicated:

Previously, in China, I had encountered Hong Zhou’s (2000) concept of “赏识教育” - shăng shí jiào yù which can be translated as ‘appreciative education’. He is the principal advocate of the movement for appreciative education in China. This movement which has a different history to the movement in the west has had some influence China-wide, but it is not widely acknowledged in formal educational settings. Its principal site of application is the family and while a relatively recent movement, it is strongly based in traditional Confucian values (Zi, 2010, p.3).

Like Zi, Hong used theories relating to Chinese characters and Chinese learners to argue the importance of integrating Western theory and Chinese theory to reform both Australian and Chinese education:

Orton (2008) makes the point that in Mandarin, the stroke that comprised the written character, the pronunciation and its meaning are three independent factors all of which need to be learnt. Chinese characters are confusingly alike requiring a great deal of effort and patience to learn. One of the more effective ways to learn them is through repetition and rote-learning (Orton, 2008). This is not one of the favoured teaching strategies employed in Australian schools. Some of the external deterrents for Australian learners of Mandarin are that support is low because curriculum languages are regarded as a ‘second tier’ Key Learning Area (Yule cited in Orton, 2008). Consequently, to understand the importance of bilingualism as an advantage over English-only competence demands changes both cognitively and affectively not only for students, but for schools and school systems.

Recognising the relationship between Chinese language and Chinese learning, Hong argued the importance of combining both Australian and Chinese educational ideas to promote education reform in China:

This study has provided several insights for China as it moves forward with educational reform. The first is that the present system of rote-learning can be mixed with student-centred teaching strategies, such as group work and hands-on activities. This study has
demonstrated that there is a place for rote-learning. It has shown that rote-learning can increase the efficiency of more student-centred and individually tailored learning strategies.

Another insight this study provided was that a teacher-as-researcher perspective on teacher education, particularly beginning teacher education, provides an essential ingredient for change. The teacher-as-researcher model was fundamental in providing an enabling learning environment that resulted in changed views about teaching and learning. The teacher-as-researcher model enabled me to improve my teaching proficiency. The teacher-researcher was empowered to research my own practice and guided by mentors improved my teaching practice and to increase student engagement. Consequently, this study has provided insights that can be considered in the reform of the Chinese education system. The first is to reorient teaching and learning using rote-learning as a legitimate core teaching strategy in combination with more student-centred teaching strategies. The second is to direct system change using beginning teachers as a conduit for change. The third is to implement a program of teacher education where teachers are required to research their own practice (Hong, 2010, pp. 230-235).

The forgoing evidence highlights the contributions the ROSETE Program provided the HDR students. It was a platform through that they could use and develop their bilingual competence to integrate Chinese knowledge into their research into Australian education.
The relationship between ROSETE and bilingual teacher-researchers

This paper reported a case study of the ROSETE Program, an engaged research education program, which develops the capabilities of international HDR students from China to be bilingual teacher-researchers. It explored how Chinese HDR students integrated their Chinese intellectual resources into their Australian educational research, and their perspectives on being bilingual teacher-researchers. It was found that encouraging ROSETE students to use China’s intellectual resources does offer credible and valuable conceptual analytics for their research into Australian education. It promotes their capabilities to use Chinese knowledge to analyse their data about Australia’s education systems, and critique Australian and Chinese educational theories.

The study provides contributes to a better understanding of how to use international students’ intellectual resources such as non-western theories (Singh & Chen, 2011). It also provides evidence to support contemporary theories of bilingualism (Pavlenko, 2003). The ROSETE Program is not arguing for closing off the current knowledge flows, but the value the sources of other ways of knowing and understanding the world. The bilingual competence of international students can be seen as an asset, not as a deficit, now that universities are focusing on internationalisation as a strategic focus.

To develop bilingual teacher-researchers, the ROSETE Program engages Australian and Chinese knowledge through undertaking the teaching of Mandarin in local public schools, and making their own teaching the focus of their research. In this way the candidates develop knowledge about Australia’s education system from the teaching profession, their academic studies and research investigations. The ROSETE Program makes explicit these distinct forms of knowledge the HDR teacher-researchers have to engage as part of their research (Singh, 2009). The Program is a team based research program. Teams of ROSETE students share a common research focus with their research educators, and where appropriate create opportunities for collaborative knowledge production between Australian researchers and Chinese HDR candidates (Singh & Zhao, 2008). Research dissemination capabilities are developed through co-authoring of refereed publications by graduates and their research educators (Singh & Guo, 2008).

In summary, this paper provided evidence of the value of a research-oriented, school-engaged teacher education program to develop bilingual teacher-researchers, and the conditions that are favourable to the exchange of knowledge between China and Australia through collaborative team work of Chinese HDR students and their Australian supervisors.

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