Meeting Mainland Chinese Higher Education Needs

Dave Towey

Division of Computer Science,
The University of Nottingham Ningbo China,
Ningbo, Zhejiang 315100, China

December 10, 2013

Abstract

It has been argued that in order for the economic growth seen over the past few decades in the People's Republic of China (PRC) to continue, a change from a manufacturing to a service economy may be required. One problem with this, however, is a foreseen shortage of university and vocationally trained workers. In response to this, a number of reforms and initiatives have been introduced, including enhancements to the quality and quantity of locally-provided higher education, and the development of local-foreign partnerships for higher education delivery. However, these reforms and initiatives, it is argued, will still fall short of the target numbers, prompting the question: how can the PRC meet the foreseen shortages? This paper offers some reflections on how open and flexible learning (OFL), including massive open online courses (MOOCs), may offer an alternative to traditional higher education in the Chinese context.

Keywords: Mainland China, Higher Education, Open and Flexible Learning (OFL), MOOCs

1 Introduction

This paper gives an overview of the recent reforms that have been taking place in the higher education sector of the People's Republic of China (PRC), reforms taking place in an effort to meet a future demand for skilled workers. In addition to traditional delivery modes, open and flexible learning (OFL), and some reflections on how it may be adopted in the PRC are also presented.

The rest of this paper is laid out as follows: Section 2 gives some background information, including the recent economic development of the PRC and changes in its higher education provision. Section 3 introduces open and flexible learning, some aspects of which in the Chinese context are then discussed in Section 4. Finally, Section 5 offers some conclusions to the paper.

2 Background

China has seen incredible economic growth over the past thirty years, fuelled, arguably, by a manufacturing industry boom that observers now suggest may be grinding to a halt (The World Bank 2013). Academics and commentators have argued that the best hope for China's continued economic growth may lie in a move away from manufacturing, and to a service economy (Brown 2012, Morrison 2013, Phillips 2012). A problem identified with this, however, is a current, and foreseen, shortfall in an appropriately skilled workforce, especially in terms of a tertiary-level educated population (Marsh 2012, Ray et al. 2012). Figure 1 shows the predicted 2020 Chinese labour demand and supply (by education level), according to which the PRC will face a shortage of university and vocational labour of about 24 million workers (Chen, Mourshed & Grant 2013). This problem is exacerbated by what Chen et al. (2013, p.3) call a "supply paradox," where, in spite of an *apparent* supply of qualified people, in reality there is an *actual* shortage of "good hires." Recognising this obstacle, the PRC has examined how it may best meet the current and future demand for skilled workers, including through increased quantity and quality of locally provided higher education, and through the development of Sino-foreign partnership frameworks for the delivery of non-local higher education.
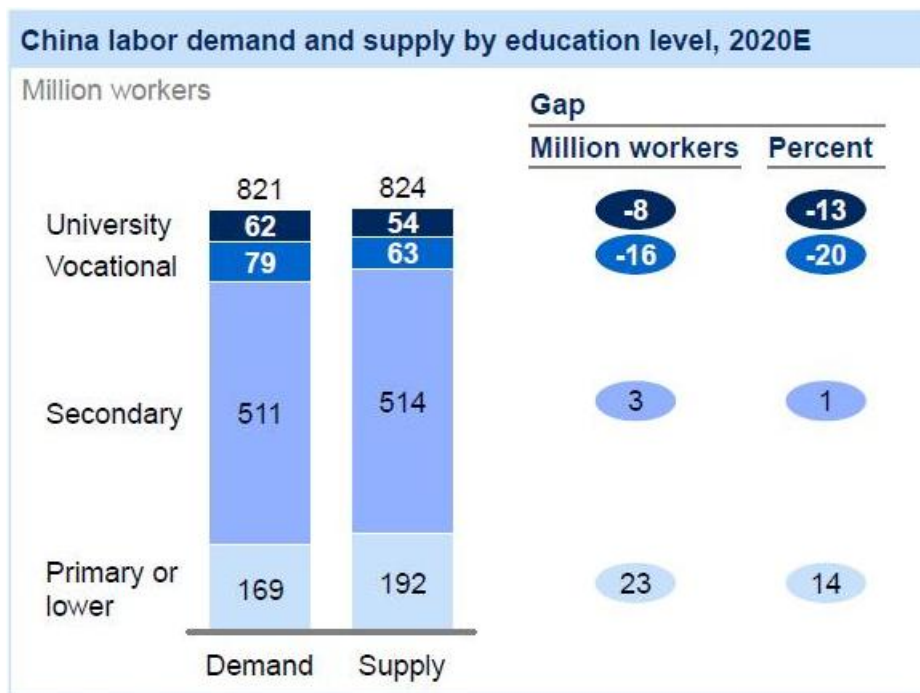

Figure 1: Predicted 2020 PRC labour demand and supply, by education level (from Chen et al. 2013, p.4)

In the PRC, higher education refers to that "conducted on the basis of the completion of senior middle-school education" (PRC MoE 1998), and according to the Ministry of Education, there are currently over 2,000 regular higher edu-

cation institutions (HEIs)[1] (PRC MoE 2011). Entry into these regular institutions is controlled through the centrally administered National College Entrance Examination (NCEE), or *gaokao*, a merit-based system according to which all candidates have an equal chance of gaining admission (Yu & Suen 2005). Over nine million people took the gaokao in 2013, competing for about seven million places (Cai, Höltta & Lindholm 2013), a deficiency of two million, which, although an improvement on previous years, remains a problematic proportion.
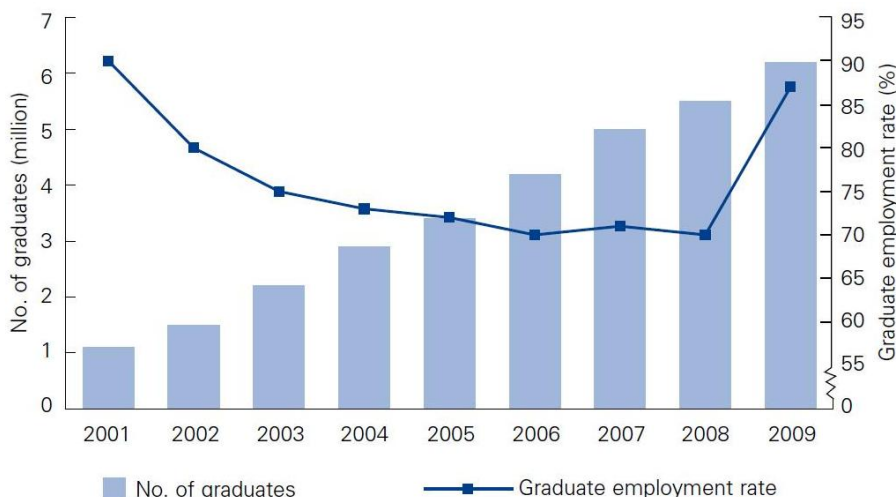

Figure 2: HEI graduates and graduate employment rates for the years 2001 to 2009 (from KPMG 2010, p.9)

Figure 2 shows the number of HEI graduates and the graduate employment rates for the years 2001 to 2009: the number of graduates rose from 1.14 million in 2002 to 6.1 million in 2009, but the percentage in employment was falling each year until 2009, when a number of new measures (including internships and training schemes) were implemented bringing the rate from 70% (2008) to 87% (KPMG 2010, pp.9-10).

A recent report (Want China Times 2013) has highlighted that PRC starting salaries for graduates were *lower* than those for workers with only a high school education — a phenomenon attributed to the continued demand for young labourers! Given the cost of higher education, and this apparent lack of financial advantage at the end of the studies, the view that it has become a risky investment, and the falling number of students taking the NCEE, are not surprising (Want China Times 2013), and yet if the PRC is to meet the anticipated demand for skilled workers, something must be done about it.

2.1 Local Provision of Higher Education in the PRC

Li, Whalley, Zhang & Zhao (2012) have pointed out that an interesting feature of the PRC's educational reforms has been the focus on tertiary level,

---

[1] Regular HEIs in the PRC mean universities, (approved) independent colleges and research institutes, and higher specialized institutions (e.g., adult higher education institutions and higher institutions of professional studies) (UNESCO 2013, § 10)

rather than on primary or secondary. Since the 1990s, a number of projects aimed at enhancing the quality and prestige of some of China's universities have been launched, including: Project 985; Project 211; and the C9 League (CEC n.d., Lixu 2004, Sainsbury 2009, THE 2011). These projects have resulted in significant resources being allocated to some key universities, and thereby, arguably, increasing the *quality* of some of the PRC higher education. Zhao (1998, p.11) predicted that, in the interest of achieving economies of scale and reducing costs, PRC higher education would include narrower ranges of teaching and research activities, and "less diversity in the nature of courses and approaches to course provision," something which has happened in many of the PRC HEIs not benefiting from the major investment projects, thus increasing the *quantity* of higher education places.

In addition to enhancing the quality and quantity of locally-provided higher education, another option the PRC has been experimenting with relates to looking overseas for assistance.

2.2 Non-local Provision of Higher Education in the PRC

Since joining the World Trade Organisation (WTO) in 2001, the PRC has allowed foreign investment in the education sector in the form of Chinese-foreign cooperatively-run schools (CFCRS), which require a partnership with a Chinese institution. Regulations governing CFCRS, which cover both joint-venture institutions and projects to run joint programmes, were issued in 2003 (PRC MoE 2003).

According to KPMG (2010, p.13), at the end of 2009 there were about thirty approved Sino-foreign joint venture universities operating in China, and about 350 approved Sino-foreign programmes leading to foreign degrees. By 2013, the number had grown to 775 approved projects (QAA 2013, p.6). Although Mok (2009, p.21) says that almost half of the cooperative universities are from the United States and Australia, with Hong Kong, Canada, France, and Britain also being significant partners, many other countries have been studying the PRC higher education sector, possibly with a view to future collaboration (Brandenburg & Zhu 2007, Cai 2011, Cai 2013, Cai et al. 2013): Tsang (2013, p.655) quotes estimates of over a thousand foreign institutions expressing interest in establishing private universities in the PRC.

Prompted by growing dissatisfaction with the quality of many of the provisions, the PRC authorities have reexamined the situation, reviewing the guidelines and regulations for foreign input in China's higher education (QAA 2013, Sharma 2012). These reviews have resulted in, amongst other things, new restrictions on the nature of foreign involvement (PRC MoC 2007, CCCP & SC 2010), which have meant that several early entry entities became no longer able to operate, and have ceased to exist (QAA 2013), but also that a large number of new competitors have appeared, making survival difficult for those remaining early entrants.

In spite of these reforms and initiatives, it is still predicted that the number of qualified workers will fall short of targets, prompting the question: how can the PRC meet the foreseen demand?

3 Open and Flexible Learning

In addition to traditional higher education models and approaches, more open and flexible modes of delivery have been gaining in popularity. An exact definition of what might be referred to as open and flexible learning (OFL) may be elusive, but as the Irish HEA (2009, p.3) have identified, UNESCO's (2002, p.8) explanation is insightful, stating that with OFL, "most of the teaching is conducted by someone removed in space and time from the learner," and that it aims to "include greater dimensions of openness and flexibility, whether in terms of access, curriculum or other elements of structure."

One the most well-known advances in OFL has been the emergence of Massive Open Online Courses, or MOOCs (Mackness, Mak & Williams 2010, Liyanagunawardena, Adams & Williams 2013).

Rather than looking at the many different ways in which OFL is being used to augment current, traditional approaches, though blended delivery, for example, I'd like to explore how it may be used as an alternative. In particular, could open and flexible learning help the PRC meet future skilled workforce demands?

4 The Chinese Context

I've been in academia — as a student, a teacher, and an administrator — for the past two decades, including living in China since 2000. In this section, based on my experience and my reading of the literature on the so-called *Chinese Learner*, I'd like to offer some reflections on how open and flexible learning may be adopted in the Mainland Chinese context as an alternative or addition to traditional modes of Higher Education. Some of the technical challenges associated with higher education delivery in the PRC have been discussed previously (e.g. Huang & Towey 2010), so in this paper, I'd like to address the less technical aspects, focusing in particular on the learner.

As Wang (2006, p.4) says, current Chinese education may appear influenced by Confucian philosophy, but in some cases commentators have reduced this "complex tradition [...] to a simple stereotype." Liu & Littlewood (2012, p.374) go further, saying that Confucian values have become "a convenient explanation for any observed or actual behavioural trait." Personally, I don't particularly like the "Chinese Learner" label, but it does offer a handle into a body of research and opinion that, right or wrong, is substantial.

Li (2010, p.41) suggests that school learning in East Asia is "predominantly dictated by the examination system." One of the questions in the discussions of MOOCs is the future of traditional HEIs, with some suggestion that a role of accreditor may emerge. Such an emphasis on examination or assessment may not meet as much resistance if the school learning is already influenced so strongly by examinations.

Wong (2004, p.165), referring to studies of Asian students in an Australian university, suggested that "learning styles are not culturally based but contextual," reporting that the students in question were able to quickly adapt to the new teaching and learning style. Whether we, as educators, embrace or avoid open and flexible approaches, our students certainly *will* innovate and adapt. As Law et al. (2010) say, "the new generation of learners is able to conceptualize how even the best learning experience can be further enhanced by the appropri-

ate use of technology" (p.111). With this in mind, I'd like to look at some of the key themes I've found in the literature which resonate with my own experience, and which may impact on the possibility of open and flexible learning being an alternative to traditional PRC higher education.

4.1   Rote Learning & Classroom Discussion

Although it has been reported that many Chinese learners are apparently involved exclusively in "rote learning," or superficial memorization (Watkins & Biggs 1996, Watkins & Biggs 2002), the opposite has also been argued: Marton (2010, p.133) refers to a group of "academically strong" university students whose study style was characterized by "reading the texts in more than one way," suggesting that the students studied in a "wide and widely varied way." Marton, Wen & Wong (2005, p.292) suggest that Chinese learners are "trying hard to memorize and trying hard to understand at the same time."

Whether or not rote-learning is a characteristic *Chinese Learner* strategy — or even whether or not it is an effective strategy — is not the key point: what's important is that it is a strategy! If learners can use this strategy and achieve better understanding, then surely it is something that we should encourage.

Connected to this are reports that Confucian Heritage Culture (CHC) students do not like to question the teacher or get involved in discussions in the classroom. It has been suggested, however, that Confucian philosophy actually does encourage questioning and discussion, but only *after* understanding (Trahar 2007, p.13). MOOCs, and OFL in general, could address this in a couple of ways including: (1) off-line questioning, which may reduce the stress of classroom questions; and (2) flip teaching, where the materials are accessed in advance of the discussion time, allowing students to understand before engaging in the discussion.

Of course, making materials available in advance of classes, online or not, may put extra pressure on the teacher, possibly forcing him to rethink his delivery. Again, though, perhaps this is something we should embrace, not shy away from.

4.2   Plagiarism & Imitation

Rosamond (2002, p.169) says that a usual definition of plagiarism is "using the work of others as if it were one's own." One of the complaints that I hear most often from foreign faculty (and students) is that, in spite of all the emphasis on the importance of avoiding plagiarism, it still all too frequently appears.

There are various forms of plagiarism, and I've heard many different attempts at justification, often similar to Trahar's (2007, p.23) student who had trouble understanding why she needed to "use words of her own when the words of the scholar she was 'quoting' seemed so much 'better'."

Shei (2005, p.99) has suggested that Chinese learning styles involve "imitation," and quotes Delza's (1967, p.450) analysis of Tai Chi forms to illustrate his point: "although this composition is not an original for anyone, the participator, in re-enacting the structure, creates it anew, so to speak, and is transformed by it." My own experience, as a student and as a teacher, is that appropriate exemplars of coursework can result in higher quality student submissions than might otherwise be expected.

One of the fears I've often heard voiced with regard to plagiarism relates to a perception of the ease with which it can be committed due to the Internet. MOOCs and other flexible approach tools, it is said, increase this ease. I'd suggest, however, that in addition to the emergence of plagiarism software, there is perhaps another opportunity for us to reexamine our teaching, and more importantly, our assessment methods: if we believe that the availability of more learning resources make assignment plagiarism more likely, then surely we should consider revising the assignment, not (attempt to) limit access to the resources.

4.3 Teacher Access

Pratt, Kelly & Wong (1999, p.252) emphasize that, from a Chinese perspective, effective teachers are "first and foremost [...] experts in their discipline," Jin & Cortazzi (1998) describe a good teacher as one who has "deep knowledge" and is able to answer questions. Neither of these characteristics are necessarily exclusively *Chinese*, but both could benefit from MOOCs and OFL. Some of the more flexible delivery models, such as MOOCs, for example, make it possible for many people to access the renowned experts.

Similar to Trahar's (2007, p.20) reports about what many non-UK students arriving in the UK may consider to be relatively few contact hours, students in my experience do also often articulate a desire for more "face-time." How well open and flexible learning modes can accommodate and address this may well determine their success as an alternative to the traditional classroom.

5 Conclusion

Continued economic growth in the People's Republic of China (PRC) may require a move to a service economy, something which will necessitate an increase in the number of workers with a higher education or vocational training, but in spite of initiatives and reforms designed to increase provision of higher education places, the PRC may not be able to meet this increased demand. Open and flexible learning (OFL) offers many ways of enhancing traditional education, including blended delivery, and may represent an alternative to current higher education. A question, therefore is: in the PRC context, how well might OFL be able to bridge the gap between traditionally supplied education and the foreseen demand for skilled workers. In this paper, based on the literature and my own experience with Chinese higher education, I've offered some reflections on how OFL may indeed be an option for the PRC's needs.

Acknowledgements

References

Brandenburg, U. & Zhu, J. (2007). *Higher Education in China in the Light of Massification and Demographic Change: Lessons to be Learned for Germany*, Arbeitspapier, CHE. Available from http://books.google.com.hk/books?id=Fh_SNQAACAAJ (Accessed 23 July 2013).

Brown, A. (2012). A Changing Chinese Economy Can Aid American Manufacturing, *Forbes* (March 07, 2012). Available from http://www.forbes.com/sites/abrambrown/2012/03/07/a-changing-chinese-economy-can-aid-american-manufacturing/ (Accessed 23 July 2013).

Cai, Y. (2011). *Chinese Higher Education Reforms and Tendencies: Implications for Norwegian higher education in cooperating with China*, Norwegian Centre for International Cooperation in Education (SIU). Available from http://www.mendeley.com/download/public/13460841/4767243642/6b394bb78cb61a579e3d019fdc7c5f3b331eaf1b/dl.pdf (Accessed 23 July 2013).

Cai, Y. (2013). Erasmus Mundus Joint Programme and EUs Strategy on Higher Education Cooperation with China–Lessons from the MARIHE Programme, *Journal of European Higher Education Area* **2013**(2): 95–112. Available from http://www.mendeley.com/download/public/13460841/5866164044/31c61b5091f5f156d8cafd460a13af551c07fe29/dl.pdf (Accessed 23 July 2013).

Cai, Y., Hölttä, S. & Lindholm, N. (2013). Establishing sub-campuses in China: A Finnish perspective, *Journal of Research in International Education* **12**(2): 142–154. Available from http://jri.sagepub.com/content/12/2/142 (Accessed 15 October 2013).

CCCP & SC (2010). *Chinese Communist Party Central Committee & State Council, [Outline for Medium and Long-term Education Reform and Development, 2010-20]*, State Council, Beijing.

CEC (n.d.). China Education Center Ltd.: Project 211 and Project 985. Available from http://www.chinaeducenter.com/en/cedu/ceduproject211.php (Accessed 23 July 2013).

Chan, C. K. & Rao, N. (eds) (2010). *Revisiting the Chinese Learner: Changing Contexts, Changing Education*, CERC Studies in Comparative Education, Springer, London.

Chen, L.-K., Mourshed, M. & Grant, A. (2013). The $250 billion question: Can China close the skills gap?, *McKinsey on Society* (May 2013). Available from http://mckinseyonsociety.com/downloads/reports/Education/china-skills-gap.pdf (Accessed 25 July 2013).

Delza, S. (1967). The Art of the Science of T'ai Chi Ch'uan, *The Journal of Aesthetics and Art Criticism* **25**(4): 449–461. Available from http://www.jstor.org/stable/10.2307/428394 (Accessed 08 March 2013).

HEA (2009). Open and Flexible Learning: HEA Position Paper, pp. 1–14. Available from http://www.hea.ie/sites/default/files/hea_flexible_learning_paper_nov_2009.pdf (Accessed 05 December 2013).

Huang, H. & Towey, D. (2010). Teaching introductory information technology through English in China: Innovative approaches to information technology education, *2010 International Conference on Educational and Information Technology (ICEIT)*, Vol. 2, IEEE, pp. 29–33.

Jin, L. & Cortazzi, M. (1998). Dimensions of dialogue: large classes in China, *International Journal of Educational Research* **29**(8): 739–761. Available from http://www.sciencedirect.com/science/article/pii/S0883035598000615 (Accessed 12 March 2013).

KPMG (2010). *Education in China*, KPMG. Available from http://www.kpmg.com/CN/en/IssuesAndInsights/ArticlesPublications/Documents/Education-in-China-201011.pdf (Accessed 23 July 2013).

Law, N. W. Y., Yuen, A. H. K., Chan, C. K. K., Yuen, J. K. L., Pan, N. F. C., Lai, M. & Lee, V. S. L. (2010). New Experiences, New Epistemology, and the Pressures of Change: The Chinese Learner in Transition, *in* Chan & Rao (2010), chapter 4, pp. 89–129.

Li, J. (2010). Learning to self-perfect: Chinese beliefs about learning, *in* Chan & Rao (2010), chapter 2, pp. 35–69.

Li, Y., Whalley, J., Zhang, S. & Zhao, X. (2012). The Higher Educational Transformation of China and its Global Implications, *in* C. Ennew & D. Greenaway (eds), *The Globalization of Higher Education*, Palgrave Macmillan, chapter 10, pp. 135–162. Available from http://books.google.com.hk/books?id=qe2R7YrNj-sC (Accessed 05 December 2013).

Liu, N. & Littlewood, W. (2012). Why do many students appear reluctant to participate in classroom learning discourse?, *System* **25**(3): 371–384.

Lixu, L. (2004). China's Higher Education Reform 1998-2003: A Summary, *Asia Pacific Education Review* **5**(1). Available from http://eri.snu.ac.kr/aper/pdf/Vol%205%20No%201%20July%202004%20PDF/02.Li%20Lixu.pdf (Accessed 23 July 2013).

Liyanagunawardena, T. R., Adams, A. A. & Williams, S. A. (2013). MOOCs: a Systematic Study of the Published Literature 2008-2012, *International Review of Research in Open and Distance Learning* **14**(3): 202–227. Available from http://www.irrodl.org/index.php/irrodl/article/view/1455/2531 (Accessed 05 December 2013).

Mackness, J., Mak, S. F. J. & Williams, R. (2010). The Ideals and Reality of Participating in a MOOC, *Proceedings of the Seventh International Conference on Networked Learning, Aalborg, Denmark*, pp. 266–274. Available from http://www.lancaster.ac.uk/fss/organisations/netlc/past/nlc2010/abstracts/PDFs/Mackness.pdf (Accessed 05 December 2013).

Marsh, P. (2012). Skilled workers shortfall of 40m forecast, *Financial Times* (November 18, 2012). Available from http://www.ft.com/cms/s/0/13e0ae56-316f-11e2-b68b-00144feabdc0.html#axzz2ZrA5Znwe (Accessed 23 July 2013).

Marton, F. (2010). The Chinese Learner of Tomorrow, *in* Chan & Rao (2010), chapter 5, pp. 133–165.

Marton, F., Wen, Q. & Wong, K. (2005). 'Read a hundred times and the meaning will appear ...' Changes in Chinese University students' views of the temporal structure of learning, *Higher Education* **49**: 291–318. Available from http://dx.doi.org/10.1007/s10734-004-6667-z (Accessed 15 March 2013).

Mok, K. H. (2009). The Growing Importance of the Privateness in Education: Challenges for Higher Education Governance in China, *in* T. W. Bigalke & D. E. Neubauer (eds), *Higher Education in Asia/Pacific: Quality and the Public Good*, 1st edn, Palgrave Macmillan New York, chapter 2, pp. 15–32. Available from ftp://s208.math.msu.su/639000/586ee3494442698f724b77b1272910f4 (Accessed 25 July 2013).

Morrison, W. M. (2013). China's Economic Rise: History, Trends, Challenges, and Implications for the United States, (RL33534). Available from http://www.fas.org/sgp/crs/row/RL33534.pdf (Accessed 23 July 2013).

Phillips, M. (2012). China eyes services sector of economy, *The Washington Times* (July 07, 2012). Available from http://www.washingtontimes.com/news/2010/jul/7/china-eyes-services-sector-of-economy (Accessed 23 July 2013).

Pratt, D., Kelly, M. & Wong, W. (1999). Chinese Conceptions of 'Effective Teaching' in Hong Kong: Towards Culturally Sensitive Evaluation of Teaching, *International Journal of Lifelong Education* **18**(4): 241–258.

PRC MoC (2007). *[Catalogue for the Guidance of Foreign Investment Industries]*, Chinese Ministry of Commerce, Beijing.

PRC MoE (1998). General Provisions, *Higher Education Law of the People's Republic of China*, Chinese Ministry of Education, Beijing, Article 2. Available from http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_2803/200905/48454.html (Accessed 13 September 2013).

PRC MoE (2003). *[Rules on Sino-foreign Co-operation in Running Schools]*, Chinese Ministry of Education, Beijing.

PRC MoE (2011). *List of Chinese Higher Education Institutions*, Chinese Ministry of Education, Beijing. Available from http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_2812/200906/48836.html (Accessed 23 July 2013).

QAA (2013). *Review of UK transnational education in China 2012: Overview*, The Quality Assurance Agency for Higher Education. Available from http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/TNE-China-Overview.pdf (Accessed 03 July 2013).

Ray, R. L., Mitchell, C., Abel, A., Phillips, P. P., Watson, A., Weddle, B., Hancock, B. & Lawson, E. (2012). The State of Human Capital 2012: False Summit. Available from http://www.mckinsey.com/~/media/McKinsey/dotcom/client_service/Organization/PDFs/State_of_human_capital_2012.ashx (Accessed 23 July 2013).

Rosamond, B. (2002). Plagiarism, Academic Norms and the Governance of the Profession, *Politics* **22**(3): 167–174.

Sainsbury, M. (2009). China establishes group of Ivy League universities, *The Australian* (November 04, 2009). Available from http://www.theaustralian.com.au/news/world/china-establishes-group-of-ivy-league-universities/story-e6frg6so-1225794050411 (Accessed 23 July 2013).

Sharma, Y. (2012). China to evaluate foreign university presence and prepare guidelines, *University World News* (January 22, 2012). Available from http://www.universityworldnews.com/article.php?story=20120118202525930 (Accessed 03 July 2013).

Shei, C. (2005). Plagiarism, Chinese Learners and Western Convention, *Taiwan Journal of TESOL* **21**(1): 97–113.

THE (2011). Eastern stars: Universities of China's C9 League excel in select fields, *Times Higher Education* (February 17, 2011). Available from http://www.timeshighereducation.co.uk/415193.article (Accessed 23 July 2013).

The World Bank (2013). China Overview. Available from http://www.worldbank.org/en/country/china/overview (Accessed 23 July 2013).

Trahar, S. (2007). *Teaching and Learning: the International Higher Education Landscape - some theories and working practices*, Discussions in education series, Subject Centre for Education, Higher Education Academy. Available from http://escalate.ac.uk/3559 (Accessed 08 March 2013).

Tsang, E. Y.-h. (2013). The quest for higher education by the Chinese middle class: retrenching social mobility?, *Higher Education* (March, 2013): 653–668. Available from http://dx.doi.org/10.1007/s10734-013-9627-7 (Accessed 23 July 2013).

UNESCO (2002). *Open and Distance Learning: Trends, Policy and Strategy Considerations*. Available from http://www.scribd.com/doc/20177079/Open-Learning-Distance-Education (Accessed 05 December 2013).

UNESCO (2013). China | Education | United Nations Educational, Scientific and Cultural Organization. Available from http://www.unesco.org/new/en/education/resources/unesco-portal-to-recognized-higher-education-institutions/dynamic-single-view/news/china/ (Accessed 23 July 2013).

Wang, T. (2006). Understanding Chinese Culture and Learning, *The Australian Educational Researcher* pp. 1–14. Available from http://www.aare.edu.au/06pap/wan06122.pdf (Accessed 12 March 2013).

Want China Times (2013). More students opting out of college entrance examination in China, *Want China Times* (June 16, 2013). Available from http://www.wantchinatimes.com/news-subclass-cnt.aspx?id=20130616000042&cid=1104 (Accessed 23 July 2013).

Watkins, D. & Biggs, J. (2002). *Teaching the Chinese Learner: Psychological and Pedagogical Perspectives*, Acer Press. Available from http://books.google.com.hk/books?id=g_f8AAAACAAJ (Accessed 08 March 2013).

Watkins, D. & Biggs, J. (eds) (1996). *The Chinese learner: cultural, psychological, and contextual influences*, CERC. Available from http://books.google.com.hk/books?id=zqWfAAAAMAAJ (Accessed 08 March 2013).

Wong, J. K.-K. (2004). Are the Learning Styles of Asian International Students Culturally or Contextually Based?, *International Education Journal* **4**(4): 154–166. Available from http://ehlt.flinders.edu.au/education/iej/articles/v4n4/wong/paper.pdf (Accessed 12 March 2013).

Yu, L. & Suen, H. K. (2005). Historical and Contemporary Exam-driven Education Fever in China, *KEDI Journal of Educational Policy* **2**(1): 17–33. Available from http://suen.educ.psu.edu/%7Ehsuen/pubs/KEDI%20Yu.pdf (Accessed 12 March 2013).

Zhao, F. (1998). A Remarkable Move of Restructuring: Chinese Higher Education, *Education Policy Analysis Archives* **6**(5): 279–290. Available from http://epaa.asu.edu/ojs/article/view/572/695 (Accessed 23 July 2013).