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Editorial

This edition of the *Comparative Education Bulletin* appears at a time when the Comparative Education Society of Hong Kong is enjoying a welcome resurgence. Membership is rising and the annual conference has become an increasingly popular venue for paper presentations and academic discussions.

What is particularly gratifying in these developments is the diversity within CESHK. Nowadays, more members live outside of Hong Kong than in the territory. While there is a strong East Asian identity to the society, we also have members in South-East Asia, Europe, the Americas and Australia. The geographical spread enriches our dialogues about comparative education.

Diversity is also visible in the areas of research interest displayed by CESHK members, as amply reflected in the contents of this volume. Several of the articles emerged from our conference held in 2011, on the theme of *Comparative education, sustainable development and social justice*—a theme that is addressed explicitly in a number of the papers. We hope that the volume makes a contribution to the important debates around the theme.

I would like to express thanks on behalf of CESHK to several people who assisted in the preparation of this edition, most notably to Li Jun and Bjorn Nordtveit for their editorial advice, and to Stephanie Chan and Emily Mang for their support in the technical and logistical aspects.

Bob Adamson
Editor

Comparative education and social justice

Michele SCHWEISFURTH

Introduction

Currently, educational research discourse is dominated by concerns about educational effectiveness and efficiency. From my personal perspective, however, it is social justice which is arguably the most important potential outcome of schooling and of educational research, and that includes comparative education research. This paper is based on a keynote address at the Comparative Education Society of Hong Kong in February 2011. In it, I interrogate the links between comparative education and social justice from a number of angles, by playing semantically with the relationship between these two. I will use illustrative examples from my own and others' research in different national and cultural contexts throughout. At the end of the paper, I will draw on recent scholarship I have been doing in the area of learner-centred education, as a case study to demonstrate some of the issues and contradictions that emerge when we look critically at the relationship between comparative education and social justice. This is a relationship with enormous potential, but which is highly complex and in need of problematization.

Social Justice <u>through</u> Comparative Education

This phrase takes comparative education as praxis: comparative education acts upon the world in order to help create social justice. It can act in this way through a number of avenues. Comparative studies can demonstrate relative injustice and inequality. So, for example, at the highest level, we see the global monitoring of how countries are doing in the effort to reach the Millennium Development Goal of Education for All. The information on how well countries are doing on this drive can assist in the targeting of resources to help those who need it most, and countries which have seen gains in EFA can be examined more closely as examples for others to learn from. Composite lists of the purposes of comparative education (e.g. Phillips, 2000) are also explicit in setting the fostering of international understanding as a goal for

comparative education; knowing about education in other contexts can requires an understanding of culture, history and politics.

However, there is nothing inherently justice-promoting about the processes or outcomes of comparative education, and, particularly when it is done poorly or in a purely evaluative spirit, it can help to perpetuate social injustice just as it can create social justice. League tables might in some cases be used to target resources towards the needy, but as we know, they don't always work that way. International rankings of universities, for example, give useful guidance to internationally-mobile students and staff who have choices about where they study or work – a good thing for the individuals concerned. However, this inevitably creates a star university – sink university gap, with the universities considered comparatively better gaining advantage in attracting the best staff and students, and the rest sinking further down the tables. Universities then focus energy on improving their performance on the indicators that are used to evaluate them for the most influential tables. The fact that different tables rank universities differently points to the significance of which indicators are chosen. Fortunately, the growth in number of such lists, and their origins in different countries do help to provide a counterpoint and balance, but some lists are inevitably more influential than others. What if one of the global indicators of university quality was widened participation among students from poor parts of the university's local population, and poor parts of the world? Or the study of social justice-related themes, and the impact of this research?

Comparative Education <u>for</u> Social Justice

There are apparently endless disputes about what comparative education is in academic terms: a field, a discipline, a quasi-discipline...? In considering the question of comparative education for social justice, it is less important what IT is than what WE are. Although we don't always speak with one voice, we do form a kind of community which has the potential to act in solidarity to promote social justice. This can be through advocacy sub-groups, which are bigger than borders, for example, the gender-focused special interest groups within CIES, and the looser

associations of people who lobby the global monitoring report producers and aid agencies to use research evidence to promote education for the very poorest in the world. We also find national comparative education societies raising awareness of social justice issues by holding conferences with relevant themes: the Hong Kong Comparative Education Society is not alone in this endeavour recently, as BAICE 2010, for example, was entitled 'Education and Social Justice in Challenging Times', and CIES 2011 in Montreal placed itself squarely in the emancipatory educational framework with the title 'Education is that which Liberates'. As a whole global community of comparativists, the existence of WCCES and its congresses focusing on issues such as intercultural learning (2007) and 'new possibilities in education and society' (2010) backs up Katz's 1970 assertion that 'the congress itself is evidence that people will work together to achieve not only common but uncommon goals as well' (in Bray, Manzon & Maseman, 2007).

Social Justice in Comparative Education

If we are a community, are we a just one, and do our research practices reflect this? Researchers based in universities in developed countries, and many in the South, are expected to work to a prescribed code of ethics designed to protect subjects, for example, through demanding informed consent and the right to withdraw from the research. But there are questions as to how far such codes are universally applicable, and therefore whether they uphold principles of equity and fairness across different cultural contexts. 'Informed consent' for example: it is not uncommon for university ethics committees to demand that written consent is obtained from research subjects as evidence that they are happy to participate in the research. But what about research contexts where illiteracy is prevalent? Or where there is a history of the abuse of official signed documents? Or where respect for outsiders, or fear of authority, or misguided trust in people with education and resources, are likely to make participants inclined to sign anything, regardless of how well-informed they may or may not be? Or where men insist that it is they who must sign for their wives or daughters, according to local conceptualizations of women's rights

and capacities?

In collaborative research, we see further issues of power imbalances. Researchers from the North have often been criticized for setting the research agenda, driving the research process, and claiming a disproportionate share of the credit through publication, while partners from less developed countries are more likely to act as research assistants, gathering data locally. The lead researchers argue that Northern funders hold them accountable to outcomes and timelines, forcing them into positions that create such imbalances and reduce the potential for capacity building. These competing imperatives militate against a recalibration of ways of working towards greater justice.

Comparing Education and Social Justice

We don't know enough about the relationship between education and social justice. There are broad assumptions regarding education as an equalizer and an emancipator, which underpin rights frameworks and Education for All agendas. However, causal relationships are very hard to pin down – which comes first, equal enrolment of girls in schools, or equality in the wider society? And there is an increasing body of evidence indicating that schooling can do harm as well as good. Harber (2006), for example, documents an alarming array of ways in which schools internationally are sites where abuse, fear, violence and hatred exist and are learned and perpetuated.

How can comparativists help to break through these ideological and evidence impasses? Comparing the outcomes of educational interventions in different contexts is a kind of indirect experimentation. Direct experimentation where social justice is concerned is ethically problematic in educational research. We can't deprive a group of people of their educational rights, just to see what happens. What we can do, is compare country X, where this group is deprived, and country Y, where they used to be, and now aren't, to gain insights into the outcome of the change. A cumulation of such perspectives can lead us to a reasoned conclusion about which educational policies do promote social

justice.

Comparative Education and Global Justice?

Comparative education has long been concerned with context, and this is usually understood to mean the local or national context. Increasingly, however, the global level is a context in itself and exerts its own influences. But how far are principles of justice and education shared at the supra-national level?

We might look to UN organizations to define global principles, and much good work is done in this regard. However, we find on the ground that UN-declared rights have different interpretations, and are limited by people's willingness to endorse and enforce them in their own educational practice; I have personally heard cultural rights used as a justification for corporal punishment and the subjugation of women in schools. Comparative education can help us to disentangle this 'dialectic of the global and the local' and to interrogate the assumptions of both the extreme universalist and relativist cases.

Learner-Centred Education: an Illustrative Case

I have long been concerned with learner-centred approaches to education, both as a teacher and as a researcher. Past research projects included LCE in Russia and South Africa at the advent of democracy in these countries, and in The Gambia, where it was introduced as part of education policy within a social justice frame. I was also part of a review of a large UNESCO school network promoting LCE. More recently I have been reading widely and reviewing the evidence on the subject, including 72 relevant articles in the International Journal of Educational Development (Schweisfurth, 2011) while writing a book on the topic. Proponents of learner-centred education point to its advantages in terms of learning effectiveness, but mainly towards the emancipatory benefits to the individual and to the wider social justice benefits of the development of democratic citizenship and social responsibility. Learner-centredness is assumed both to reflect and to create social justice, and as such, is an interesting lens through which to briefly consider each of the above relationships between comparative

education and social justice.

In terms of comparative education as praxis, comparative studies can help us better to understand LCE as an emancipatory approach. Many of its advocates are driven by unquestioned ideological positions about the universal appropriateness of LCE, but the evidence I have been reviewing reveals how poor planning, resources, capacity, and cultural differences all militate against its effective implementation in many contexts. Comparative education can help us to understand the reasons behind these implementation challenges, by providing examples of promising and not-so-promising approaches (unfortunately, there were far more examples of the latter). It can thus help to avoid the inappropriate transfer of practices, and pre-empt the stigmatization of those involved, particularly teachers. But, interestingly, the authors of the 72 articles seemed in many cases to be operating completely independently of each other, and after a while I felt like the Bill Murray character in the film *Groundhog Day* – the same thing, over and over, without moving forward. The large number of articles on this theme in one journal suggests that the comparative education community is engaged with this issue – but not as a community, or there would be greater coherence and cumulation of lessons learned, with clear directions for appropriate advocacy. Across these articles, there emerged little clear proof of the relationship between LCE and the promised benefits to the individual and society, reminding us that causality is very difficult to prove. Which comes first: LCE, or social change in democratic and emancipatory directions? Evidently, further comparative work is needed to shine a clearer light on what is effective LCE implementation, and whether LCE is actually a global emancipator in the forms that are promoted by aid agencies and governments who buy into LCE as a 'policy panacea'. We need to know even more than just whether LCE is the solution that many believe it to be: we need to know what form of LCE works with whom, when, where, and under what circumstances. The LCE global solution, at least as it is currently manifested as a travelling policy, is evidently far from perfect.

Conclusion

As an overview, this article begins to ask questions about the relationship between comparative education and social justice, through examining different ways that the relationship is constructed. But it is also, I hope, a plea for reflexive action. As comparativists, we can be part of the solution, but we can also be part of the problem.

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Buddhist temples' relationships with primary schools in Lao society: how temples support primary schools

Tomoe TAIRA

Introduction

Since the "Education for All (EFA) World Conference," conducted in 1990, EFA and universal primary education have been common challenges for the international educational community. Like other developing countries, the Southeast Asian nation of Laos, identified these common challenges as their National Educational goals. In Laos, the primary education Net Enrollment Ratio (NER) did improve from 58% NER in 1991 (see Takita, 2008) to 91.6% in 2008 (see Ministry of Education, Education Statistic Information Technology Center, 2009), but a major challenge presently exists and that is how to increase the primary education completion rate, which, in 2008, was only 64.2%. Laos has therefore set a national goal of achieving universal primary education by 2015. Reaching this goal has become the most important challenge in their educational development.

In Laos, where social and psychological distance often appears between people and school education, it is difficult to achieve educational goals without understanding and support from local communities. Therefore, it is necessary for the government to have participation from all involved stakeholders when developing educational policies. The government also encourages these same stakeholders to contribute actively by providing economic and or labor resources.

In the EFA discourse, the international community emphasized the roles and relationships among the different participants, such as governments, civil societies, NGOs, and local communities (Nishimura, 2008). In Laos, Buddhism plays an important role in society and also in educational development because of the direct involvement of the temples and their monks in education. Few studies have focused on the relationships between temples, primary schools, and the local community in educational

development. This paper explores the relationships between temples, the local community and primary schools, as well as the temple's role in educational development in Lao society.

Research Questions and Design

Based on the above introductory statements, two research questions were set: first, "What are the relationships between temples, the local community, and primary schools in Lao society?" and second, "What role do the temples play as part of the local community in educational development in Lao society?"

This paper is based on the qualitative interview data collected through a field survey conducted by the writer in Laos in September 2010. Three large target areas were chosen: the capital Vientiane City, Vientiane province (approx 70 km from Vientiane City) and Borlikhamxay province (approx 150 km from Vientiane City). In each of these target areas, I conducted semi-structured interviews with directors of the Education Services, local directors and officials of the District Education Bureau, chief priests, primary school principals, teachers, and village chiefs. The semi-structured interviews sought to identify their views on the relationship between temples, the local community, and primary schools and the temple's role in educational development in their society. The main questions in the interview were about the types of support the temples provide to primary schools and the educational activities the monks conduct in these primary schools. In the capital city, I also conducted in-depth interviews with the Ministry of Education and the Lao Buddhist Fellowship Organization.

Educational Development and Government Policy on Buddhism in Laos

Educational development and the situation in Laos

Historically, Buddhism and literacy education was conducted in temples (Okada, 2007). Laos has had a turbulent history, first being occupied as a French colony, then experiencing a 20-year civil war. It was not until the period after the 1975 revolution that the Lao government begin establishing a national education system, which at that time included a national 11-year curriculum. Since the 1990s,

the Lao government has been emphasizing the primary educational needs of Lao children, drawing on international educational trends.

The government has set national education goals in their policy document, "Sixth Five-Year Plan of Educational Development" (2006-2010). In this plan, they undertake primary education development by setting compulsory primary education targets at a net enrollment goal of 90% by 2010, 95% by 2015 and 98% by 2020, and by reducing the rate of repetition and drop-out to no more than 2% to 3% annually (Ministry of Education, 2006). The government created three main action plans to achieve these targets:

—Expansion of schooling opportunities
—Improvement of quality and relevance
—Improvement of educational administration and management

Government policy on Buddhism

From 1947 to 1975, Buddhism was the national religion of the kingdom (Rasdavong, 2006). For a few years after the 1975 revolution, Buddhism was repressed by revolutionary government policies. In the 1980s, due to public outcry regarding this repressive policy, the government began lifting restrictions on practicing Buddhism (Hayashi, 2003). However, the some of the original beliefs or teachings of Buddhism have been changed by various authoritative government bodies over the years so that presently the teachings coexist with Socialism. Another change in Lao Buddhism is that it is under the strict control of the People's Revolutionary Party and finally, the government now takes the position that Buddhism should contribute to national development and the education of the people (Ishii & Tamura, 1996).

There are several aspects of the relationship between Buddhism and education, but this paper focuses on just two: the temples' support for regular primary schools for secular people; and the monks' educational activities at regular primary schools organized by a NPO, the Lao "Buddhism for Development Project" (BDP) under the Lao Buddhist Fellowship Organization (Buddhism for Development Project, n.d.).

Research Findings
Overall, the survey study found that temples support primary schools on three different levels. First, where temples are near schools, a two-way relationship begins, where temples and schools support each other. In other cases, only a one-way relationship exists where temples support primary schools but there is no visible support by the primary schools to the temples. And finally, the study found that monks conduct some educational activities in the capital city, but not in the other two provinces.

Findings in Vientiane City
In district A in the capital city, in locations where temples were near primary schools, funds were provided by the temples for the purchase of a grass cutter and food for students in primary schools. In districts B and C, where temples and schools were located on the same grounds or within 300m of each other, construction materials, school supplies, funds, and labor was provided by the temples for the primary schools. Also, students provided labor for the temples during religious festivals or for cleaning.

In some regular primary schools, "Buddhism Values/Behaviors" has been taught as an optional subject by monks under the Buddhism for Development Project (BDP). Some positive impacts of this activity were observed—"student behavior changed positively, in that students showed improved respect towards parents, teachers and elders, and understood how to speak properly" as noted by the interviewees. Interviewees also brought up two issues: "the challenge is that not all students change their behaviors in a positive way" and "not many monks can teach lower grade students".

Findings in Vientiane Province
In district D in Vientiane province, where a temple and school are located within 300m of each other, there exists a two-way relationship. Temples provide funds, school supplies and buildings to primary schools and the schools provide labor, such as helping with temple work and religious festivals. In district E, where a temple and school are located within 300m from each other, a

similar two-way relationship also exists. But in both these examples, monks do not conduct educational activities in the primary schools.

Findings in Borlikhamxay Province

In district F in Borlikhamxay province, where a temple and primary school are located within 2km of each other, the temple provided funds and labor for the renovation of a school's roof. In return, the schools provide student labor for temple work. In district G, where a temple and primary school are also located within 2 km of each other, there is only a one-way support system between the temple and school.

In Borlikhamxay province, as in Vientiane province, educational activities have not been conducted by monks in primary schools. In Borlikhamxay, the interviewees said it was because "the people never requested monks to teach at the school." "The people are already doing well so there is no need for monks to go into schools to teach morality" and "it is difficult for temples to support schools due to the limitation of people's ability to support the temples."

Conclusions

"*What is the relationship between temples, the local community, and primary schools in Lao society?"*

To summarize: people donate and support temples for personal reasons—to accumulate virtues in return so they can be convinced that they will enjoy well-being in the afterlife. Temples support primary schools, often through people's donations to temples, as their natural and expected roles in the village. Where conditions permit, schools and students also provide labor to temples in return. The degree of support from temples depends upon the temples' conditions.

After the 1975 Revolution, relations between temples and schools were weakened by government policy. However, the government has since shifted toward a more open policy on Buddhism due to an overwhelming public outcry, which forced them to listen to the people. This policy change provided favorable conditions for relationships between temples and primary schools to develop and

exist.

"What kind of role do the temples play as part of the local community in educational development in Lao society?"

Temples contribute to the government's primary educational action plan in three ways: first, temples' support renovation and construction of school buildings and the provision of the basic need contribute to "Expansion of schooling opportunities". Second, in terms of "Improvement of quality and relevance", monks assume the teacher's role in teaching morality which has a positive impact on students' behavior. Temples provide school supplies and materials thus improving the quality of classroom education. Third, in terms of "Improvement of educational administration and management," temples play an active role in encouraging the local community's participation in education through temple donations.

Implications

The unique feature of the temples' support to primary school is that it is actually support from the local people by donations to the temple, which then chooses to support the schools.

Monks' teaching of "Buddhism value/behavior" somehow naturally occurred. The activities have slowly been conducted based on the needs and decisions of the people. These research findings give some indication that temple and monk support could be one possible way of providing "Sustainable Educational Development" by the people for the people. Further research is needed to examine this implication.

Note:

This paper is based on the presentation given at the CESHK Annual Conference 2011. This paper is a summarized version of Taira (2011) written in Japanese and is here reproduced in slightly revised form in English.

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Monitoring civic potential of young adolescents in Asian societies: a comparative education perspective

Joseph Kui-foon CHOW

Aim of the Project

This project aims to construct a General Framework of Civic Competency that will help understand the civic competency of adolescents across societies in Asia. By testing the theoretical adequacy of the empirical results, the field of citizenship education will be moved forward to embrace a general framework for understanding of students' civic competency as a blended measure of civic knowledge, skills, attitudes, values, beliefs, behavioural intentions and behaviours. It will also investigate methodological approaches that will provide valid and reliable assessment of civic competency in the future. By distinguishing between Civic Potentials, Civic Competencies and Civic Outcomes, the Framework will describe how these constructs are related and measured. By taking into consideration different social, political and cultural contexts, the Framework will accommodate measures of *Civic Potentials*, *Civic Competencies* and *Civic Outcomes* that are specific to particular societies and regions, with representations from both common and specific civic dimensions. This will challenge the requirement of large scale assessments for a universal model conceptualizing and measuring civic competencies. It will also challenge exclusively Western views of Civic Competency that cannot account for indigenous conceptions of civic competency reflecting different traditions and values, in particular in Asia.

From the perspective of comparative education, given that cultivating civically competent citizens ready for active citizenship is an important educational outcome for many nations, this project, therefore, has the potential to expand understanding of citizenship, citizenship education and the relation of the two to the nation in the Asian region. This study will draw on the analysis of the datasets from the International Civic and Citizenship Education Study (ICCS). The results will provide an empirical test of whether

there is support to the notion of Asian perspective of students' civic competency. Its comparative methodology will highlight the significance of understanding citizenship issues in comparative perspective.

Previous Work on Civic Competence

Scholars in the past decades have attempted to conceptualize the idea of "civic competence". Since civic competence is a contested concept, however, scholars in different times have used different conceptions and definitions. For example, Hoskins and Crick, 2008) adopted a composite concept of competence as a "complex combination of knowledge, skills, values, and attitudes that leads to effective, embodied human action in the world". In particular, some scholars went further to define "civic competence" as a combination of knowledge, skills, attitudes, and values that enables a person to take part in active citizenship (Hoskins et al., 2008, 2011). Back in the 1960s, in their classic publication *Civic Culture*, Almond and Verba (1963) mentioned the term "civic competence", referring to it as attitudes and norms that individuals have to acquire to be competent and active citizens in the societies. Fratczak-Rudbnicka and Torney-Purta (2002) have argued that the requirement of good citizenship varies with the different political regimes, and discussed the notion of "civic competence" with competencies particularly necessary for "democratic citizenship". Torney-Purta and Lopez (2006) identified "three strands" of civic competencies, that is civic-knowledge, cognitive and participative skills (and associated behaviour), and core civic dispositions (motivations for behaviour and values/ attitudes). This is a similar conception adopted by Hoskins et al. (2008, 2011) who divided civic competence consisting of four broad domains, which are citizenship values, social justice values and attitudes, participatory attitudes (behavioural intentions) and cognition about democratic institutions.

It can be seen that these scholars in general have conceptualized civic competence to include both cognitive and non-cognitive component. Recently civic and citizenship competencies have been linked by some scholars in a broader sense with students'

preparedness and competencies in the workplace. For example, Torney-Purta and Wilkenfeld (2010) have emphasized the overlapping areas between civic and citizenship outcomes and workplace performance. They outlined how various civic outcomes could be analyzed to inform the workplace competencies in future. Also, their analysis using the IEA Civic Education Study data linked the relevance of the civic and citizenship dimension with competencies that adolescents need as they move to the workplace as adults. There are currently some international studies being carried out linking civic competencies with the "21st Century Skills", such as the *Assessment and Teaching of 21st Century Skills* in 2009, and *Partnership for 21st Century Skills* in 2006 (Kay, 2009).

From a comparative perspective, some scholars have already done a comparison of levels of "civic competence" among countries in Europe (see Hoskins et al., 2011). They analyzed the data of a total of 22 European countries and organized a "composite indicator" to measure the adolescents' civic competence from the large scale assessment of the Civic Education Study (CivEd) done in 1999 by IEA. They called such an indicator the "Civic Competence Composite Indicator" and have published several works on the measuring and monitoring of civic competence in Europe. In their work, civic competence, in the form of a composite indicator, can be further conceptualized as contribution from four separate domain indicators: citizenship values, social justice values and attitudes, participatory attitudes, and cognitions about democratic institutions. Since they have analyzed the data from those European countries cross-nationally, they have shown similarities and differences on both overall performance and individual domain-specific scores across these countries, and offer some explanations from the perspectives of education, economic development and political history of the countries.

"Civic competence" is an under-researched area with Hoskins' recent work being the best attempt so far to try to conceptualize the idea of what it means to be "civically competent", as well as testing the idea with empirical datasets of responses from early adolescents. Yet missing from this important attempt is any

understanding of civic competence outside of a liberal democratic framework. The assumption is that such a framework is universal. Yet there is a significant debate about the applicability of such a framework in other contexts. For example, Fukuyama (2011) has argued that, in Asia, conceptions of democracy differ and Kennedy (2004) has shown how the debate on "Asian values" has permeated discussions of citizenship within Asia. Thus Hoskins' (2008) model is an early start on this important issue but it does not provide all that is needed for a more inclusive understanding of citizenship and citizenship education in Asia.

Civic Competence or Civic Competencies?

Occupational Personality Questionnaires used by industrial/ occupational psychologists differentiate these two constructs: job competency (now measure) and job competence (lag measure). I think this distinction is also true for the work on civic competency (see Bartram, 2006). Similar to the concepts of competence and competency in the world of industrial/ occupational psychology, "civic competence" and "civic competencies" seem very similar in wording, especially when they are used interchangeably by scholars in the current literature to refer to the same concept. In this project, I would argue they represent very different concepts and should be made clearly distinguishable to make subsequent discussion more meaningful. Civic competence, I would argue, should refer to the actual level of civic competence as reflected in adolescents' or citizens' performance of civic engagement in the societies, and it should be determined by a pre-set standard of competence against certain satisfying criteria and outcomes. Competencies, on the other hand, should relate to the underlying attitudes, values, cognition, motivation and behaviours citizens should possess in order to achieve the desired outcomes of civic engagement (see, for example, Torney-Purta and Lopez, 2006). In particular, for young adolescents, civic competencies should refer to the idea of "civic potential" (see below) to predict what they would be able to perform when they become adult citizens in the future. Civic competence, in whatever period of time or stage, however, should be regarded as a record of achievement of civic engagement at a particular point of time.

Civic Potential

It should be noted that the current conceptualization of civic competency is a blended measure of civic knowledge, skills, values, beliefs, attitudes, behavioural intentions, and actual behaviours. In particular, in understanding behaviour-related measures, consideration should be given to differentiating between behavioural intentions and behaviours. The behaviours and other civic dimensions that the students are currently demonstrating should be understood as civic competency, whereas the behavioural intentions and other civic dimensions which have civic engagement implications in the future should be understood as civic potential.

Scholars such as Kennedy (2006, 2007) have indicated that youth are actually preparing to become citizens. Some researchers have also pointed out that in the legal sense they are yet to be citizens since they are not allowed to exhibit voting behaviours, which are the fundamental participatory action of active citizenship (see, for example, TorneyPurta and Amadeo, 2011). Therefore, young adolescents are bound not to be able show their full possible potential of civic competence until they are in their adulthood. Therefore it may be more appropriate to talk about their level of "civic competence" when they have moved from adolescence to adulthood.

In the study proposed here the concept of "civic potential" will be introduced to represent the civic characteristics of youth in their young adolescence, where civic attitudes and civic values are in the formation stage and where some of the civic behaviours that are relevant to society can still be exhibited. In common with other psychologists and sociologists, Flanagan (2008) showed a consistent view of "adolescents are becoming citizens" by describing the adolescence period as a "politically definitive period". Adolescence is regarded as the time for youth to learn and acquire conceptions that have considerable effect in the future directions of their civic lives.

It should be recognized that in the current literature on civic

competency, in particular in Hoskins et al.'s work (2008, 2011), the domain "participatory attitudes" are constructed as collective measures of the "behavioural intentions" (such as via the students' expected adult participation in political activities). Some may argue that such "behavioural intentions" measures are not actually measures of actual competency; rather they should be conceptualized as some potential measures or disposition that will have an effect on future civic behaviours. The latter is the main idea behind the concept of civic potential.

The current literature has focused on civic competence of the adolescents who are not existing adults. It does not consider the fact that as the adolescents grow, the social, economic, political contexts they are living in undergo rapid changes. As Higgins-D'Alessandro (2010) has pointed out, "concepts of citizenship, civic engagement, and civic responsibilities are multifaceted and they are understood differently by different generations". Thus it should be expected that when adolescents grow into adults, they would be living in a society that could have different social, economic, and political contexts that it had in the past. Therefore, as the contexts of the society change, the civic outcome and thus the desired civic competency are also expected to change too. It can be imagined, for example, that a high level of civic competence exhibited in very civically competent young adolescents in a particular society may not necessarily be the same civic competence shown in another place. Besides, it is not uncommon that there are various forms of desired civic competence across different societies.

The International Civic and Citizenship Education Study (ICCS)

The International Civic and Citizenship Education Study (ICCS) (Ainley, Schultz, Faillon, & Losito, 2010) was a large-scale assessment project carried out by the International Association for the Evaluation of Educational Achievement (IEA) in the years 2008-2009 in 38 educational systems (Schulz et al., 2010), which aimed to investigate the ways in which young people are prepared to undertake their roles as citizens across a range of societies. It assessed over 120,000 grade 8 students, aged around 14 years old,

from 5,300 schools from the participating societies. The instruments were created in accordance with the ICCS Assessment Framework to capture four content domains: (1) society and system, (2) civic participation, (3) civic principles, and (4) civic identities. These instruments were administered in the form of 80 cognitive items (which have correct and incorrect answer) and 121 attitudinal items (which do not have right or wrong answer) (Schulz et al., 2008).

The issue of how ICCS data might be useful to conceptualize civic potential of Asian adolescents remains an open question. Because of the age cohort of the study, ICCS can be seen at the very least as providing indicators of junior secondary students' political and social attitudes. A particularly important feature of ICCS was the inclusion of five Asian societies so that such indicators can be examined in distinctly Asian contexts and may serve as a guide for policy makers concerned with how young people may undertake their future roles as citizens. The benefit of such work is that it can take on a comparative perspective looking both within and across societies. Such further studies will take the form of secondary data analysis that has the potential to inform new theoretical perspectives as well (see, for example, Kennedy, Hahn, & Lee, 2008).

Sample

ICCS recognized the importance of tapping diverse views of citizenship and included students from five Asian societies who completed both the International Survey and a specific Asian Regional Module (ARM) designed for Asian students only. This has created the possibility to investigate empirically Asian students' conceptions of citizenship. Among the 38 participating societies, only five of them were from the Asia Pacific region, namely, Hong Kong, Taiwan, South Korea, Indonesia and Thailand. These five societies have both similarities and differences in terms of political history, economic development, and education systems. In this study, the data were collected from 14-year-old students from the five Asian societies who completed both the International Cognitive Test and International Survey that the students in the other 33 countries have answered, and the specific questions posed

in the ARM. A total of 23,654 young adolescents from 667 schools in these five countries participated in the ICCS study. The sample sizes for these five Asian countries range from 2,902 to 5,263 students for each country. Data were collected in first half of 2009. The sample distribution of the five Asian societies is presented in Table 1.

Asian Regional Module

The ARM consisted of a total of eight questions that sought to tap into the Asian students' conception of citizenship that are particularly important in understanding citizenship in Asia, and which are not assessed in the international survey. As with the international survey, the eight questions in the ARM were answered on a four point Likert style. They asked students' attitudes on: undemocratic government, obedience to authority, the preservation of traditional culture, integrity of the local legal system, corruption in public service, personal morality of politicians, sense of Asian identity, perception of good citizenship, and the use of connections to hold public office (*guanxi*).

The Elements of the General Civic Competency Framework

As mentioned above, the General Civic Competency Framework accommodates a model that distinguishes civic potentials, civic competencies, and civic outcomes (See Figure 1). Civic potential is defined as the adolescent's personal characteristics including his/her present attitudes, values, behavioural intentions and civic knowledge that allow one to demonstrate the desired civic actions and behaviours. Civic outcomes refer to the real civic actions that an adolescent has performed in the past. Civic competencies reveal an adolescent's current performance of civic behaviours.

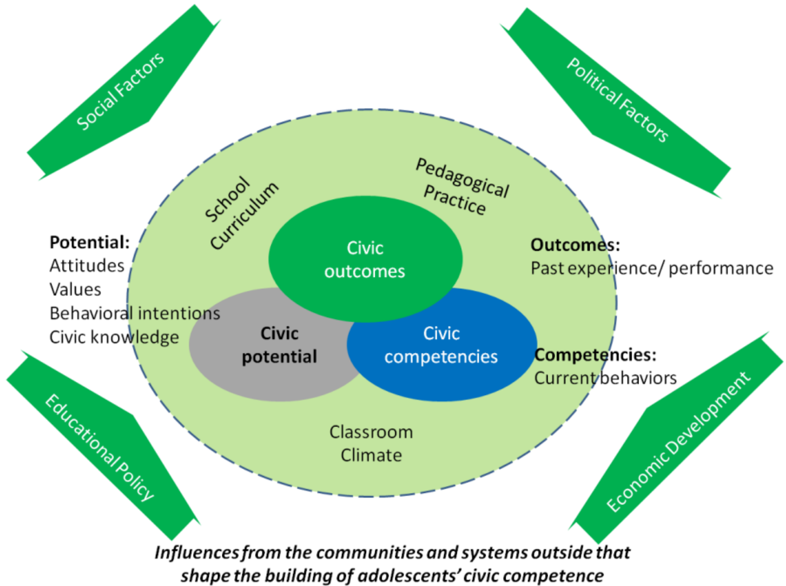
Within this framework, there are systematic contextual factors that influence the development of adolescents' civic competence, such as political factors, social factors, economic development, and educational policies. Within a particular educational setting, there are other educational variables that will impact on the adolescents'

Table 1: Sample distribution in the five Asian societies

	All	Hong Kong	Taiwan	Korea	Indonesia	Thailand
School	667	76	150	150	142	149
Male	11850	1414	2670	2968	2365	2433
(%)	(50.10%)	(48.73%)	(51.67%)	(56.49%)	(46.67%)	(46.23%)
Female	11587	1376	2474	2275	2650	2812
(%)	(48.99%)	(47.42%)	(47.88%)	(43.30%)	(52.29%)	(53.43%)
Missing	217	112	23	11	53	18
	(0.92%)	(3.86%)	(0.45%)	(0.21%)	(1.05%)	(0.34%)
TOTAL	23654	2902	5167	5254	5068	5263

learning of civic competence, i.e. school curriculum, pedagogical practice, and classroom climate.

Figure 1: The relationship between civic potential, civic competencies, and civic outcomes in the General Framework of Civic Competency



Expected Research Outcomes of the Project

Establishing a General Civic Competency Framework

I expect to show what civic dimensions will contribute to the Civic Competency and how the latter should be constructed. I shall establish a General Framework of Civic Competency that considers the possible civic dimensions, which integrates both the affective components and cognitive components of Civic Competency.

An inclusive framework for assessment

It is suspected that it is difficult to achieve a universal framework for Civic Competency that fit all the societies equally well. As a

consequence, I would construct a Framework that allows the possibility of representing measures of civic dimensions that are specific to societies of particular social, political and cultural backgrounds. This project will test with empirical data to determine the specificity of the civic dimensions that are common in countries in the Asian region and evaluate the implications of such specificity on the construction of the notion of Asian's Civic Competency.

Geographical patterns of level of Civic Competency

Kennedy (2011) recently analyzed the ARM and found some geographical patterns in Asian identity, support of personal and public citizenship values, and support of civic values. It is expected to observe some geographical trends in levels of overall civic potential and its sub-domains. For example, societies of East Asia, i.e. Taiwan and Hong Kong and Korea, may show differences in domains of civic potential from societies of South-East Asia, i.e. Thailand and Indonesia.

Variations of characteristics of Civic Competency accounted for by social, political and cultural context

Kennedy, Mok and Wong (2011) have demonstrated how adolescents' trust towards political institutions may be accounted for by social, political and cultural contexts in the five Asian countries. I expect to seek an explanation for the levels of civic potential across Asian countries in socio-political and cultural factors.

Significance of the Project

It is expected such a model of civic competency can formulate a framework under which we can come to understand young adolescents' civic potential in various civic dimensions from different societies. From the civic assessment point of view, this project is the first attempt to build on previous conceptions of civic competency currently in the literature to include the perspective from the Asian societies. It is expected the ARM of ICCS will serve as a very important database that informs us about some significant areas of civics and citizenship that are relevant to

measuring civic potentials cross-nationally in the Asian region.

This project will serve as a first attempt to measure and monitor—using ICCS data—civic competency as an overall concept that combines both the cognitive dimensions (knowledge) and affective dimensions (attitudes, values, behavioural intentions) at the same time.

It is expected that civic potentials as measured from the ICCS data would vary across the five Asian countries. Such variations will enable us to look from a comparative education perspective by taking into account political history, economic development, educational policy, curricula and pedagogies within and across these Asian countries. It is this complexity of political, socioeconomic, and educational variations that will allow us to question a presumption for a single and simple explanation for different levels and patterns of adolescents' civic potentials across Asian countries.

The work described in this paper promises to make a contribution to the field of citizenship education by establishing a knowledge base of adolescents' civic potential in the sense that Younnis et al. (2002) described in their article:

> "Creating a knowledge base about civic development is a vital resource that ultimately helps adolescents and the societies of the future. It is every new generation's task to take stock of the past and then enter into the process of making history."

The focus on the Asia societies in this study will help further complement the studies on civic competency that were done in the western countries where citizenship is commonly understood in the liberal and democratic form. By using the ICCS 2009 data, the project will inform us from a comparative citizenship education perspective about the adolescents' attitudes, values, actions towards citizenship issues in the five Asia societies under investigation.

Implications for Comparative Education

International large scale assessments of student performance have been managed for comparing educational achievement among participating countries, which is a useful resource for studies of comparative education. For decades, the discussion on performance of international large scale assessment and its implications have focused on traditional areas such as science and mathematics. Assessment projects include the IEA's assessments, the Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS), and subsequent international assessments such as the Programme for International Student Assessment (PISA) run byt Organization for Economic Co-operation and Development (OECD).

One of the major outcomes of these assessment projects is "leagues tables" which offer ranking of the students' performance among the participating countries. The score and rank often have implications for government officials regarding their policy making in the educational area of interest. As described by Rutkowski and Engel (2010), the governments are often confronted with question of "how are we doing" when compared with others. Therefore, large scale assessments, as previously demonstrated by projects such as PISA, PIRLS and TIMSS, have potential to become influential tools that have substantive impacts on educational policy through their emphasized scoring and ranking systems. The authors have categorized such assessments as 'hard' measures because they provide governments with the opportunity to realign their education systems as part of the process of seeking 'world class status'.

While PISA and TIMSS have demonstrated the potential of large scale assessment to influence curriculum and pedagogy *(*Ringarp and Rothland, 2010*)*, ICCS has the potential to go beyond educational settings to demonstrate how citizenship itself can also be conceptualized as measurable knowledge, skills, and values. In this connection, the project described here has potential to re-orientate ICCS 2009 by introducing students' "civic potential" and "civic competence" as another area of educational achievement

for comparison among various countries. As with other comparative education research, this project, therefore, has the potential to inform educational policies (Watson, 2001; Maroy, 2004; Mok, 2005).

Given the significant role that Asia now plays in economic and political events, the purposes of this project are to evaluate the Asian students' preparedness to be citizen as they become adults in the future. The General Framework of Civic Competency will enable us to investigate the students' conceptions of citizenship from multiple perspectives and the causes of these attitudes; compare these attitudes both within the region and beyond; and assess the implications for understanding not only the nature and purpose of civic and citizenship education in Asian contexts but also the possible influence of such conceptions on notions of the state. The results of this study will provide baseline data on Asian students' civic potential. It will also provide insights into the way future citizens are prepared in one of the most strategic regions in the world. Importantly, the results will provide the basis for comparisons with young people in other parts of the world.

Note

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论人口年龄结构与高等教育可持续发展

覃丽君 QIN Lijun

Abstract

This research prospects the future of sustainable development of higher education in China from the relationship between education subsystem and the population subsystem. With the development of our society, our population age structures begin to show a birthrate decrease and aging trends. The impact for higher education is mainly the decrease of traditional students and the increase of non-traditional students, which leaves higher education facing the problem of sustainable development. By analyzing the relevant population statistics, this paper offers advice for the sustainable development of higher education. This advice includes attracting international students and enlarging the age range of domestic students.

人口结构有着丰富的内容，它包括人口的自然结构、人口地域结构及人口社会结构等。人口自然结构包含人口的年龄结构、性别结构等。本文所指的人口年龄结构即属于人口的自然结构。[1]人口年龄结构是历史上人口出生、死亡、迁移等变动对人口发展综合作用的结果。[2]p28 已经发生的人口年龄结构具有不可逆的特点。

本文所指的高等教育是宽口径高等教育，是在完全的中等教育基础之上进行的各种层次、各种形式的专业教育的总称。[3]包含普通本专科教育、研究生教育、成人高等教育、电大开放教育、网络教育、在职教育等。[4]

国际上有关可持续发展最为普及的定义为 1987 年世界环境与发展委员会（World Committee of Environment and Development, WCED）出版的题为《我们共同的未来》（Our Common Future）的报告书中所阐明的定义：既满足当代的需求，又不危及后代满足需求能力的发展。[5]p10 因此，高等教育可持续发展是指各级各类高等教育机构既满足人们接受优质高等教育的当前需求，又使优质的高等教育资源保持

可延续性，在保持自身可持续发展的基础之上，为经济与社会的可持续发展服务的发展。

一、人口年龄结构与高等教育可持续发展的关系

人口与教育的关系是极为错综复杂的，教育既可以是人口变化的一个原因，也可以是人口变化的一种结果。[6]因此，作为人口自然属性的人口年龄结构与高等教育的可持续发展之间也存在着这种相互依存、相互制约的关系。高等教育主要是通过影响人口出生率与死亡率来实现自身对人口年龄结构的影响，人口年龄结构则通过影响高等教育的生源数目与生源结构来影响高等教育的可持续发展的。

如前所述，高等教育主要是通过影响人口的出生率与死亡率来实现人口再生产类型和年龄结构类型的变化的。[7]一般而言，人口的受教育程度越高，其生育率也就越低，其中接受过高等教育的人口所生育的子女数要少于只接受过初等及中等教育的人口所生育的子女数。因此，高等教育对人口出生率的影响主要是通过改变人口的生育观念、生育心理与生育行为来实现的。而高等教育对人口死亡率的影响主要是通过推广科学知识与生活方式，使人口养成乐观的生活态度与良好的卫生习惯，从而延长人口寿命，降低死亡率。

人口年龄结构对高等教育可持续发展的影响是通过影响高等教育的生源数目与生源结构来实现的。不同年龄阶段的人口对教育的需求不同。如少年人口（0-14 岁）处于生长发育的黄金时期，身体的各项官能处于萌芽阶段，因此，少年人口对教育的需求主要集中在学前、初等教育和前期中等教育阶段。成年人口（15-64 岁）其身体的各项官能已趋向于成熟，是人生发挥创造能力的黄金阶段，对教育的需求主要集中在后期中等教育、高等教育与继续教育方面。老年人口（65 岁及以上）处于人生的夕阳时期，身体的各项官能不再继续发育，开始停滞并倒退，许多人退休之后，面临着或多或少的心理问题，如自我价值危机、老年丧偶危机、人生意义危机等。因此，老年人口对教育的需求主要集中在继续教育与终身教育方面。而现阶段我国的人口年龄结构主要表现为少年人口减少、成年人口与老年人口增加，因此，今后我国人口对教育的需求将主要集中在高等教育、继续教育与终身教育方面。而高等教育体系因其培养人的活动的周期性与固有的教育传统属性，对外在刺激的反应通常稍显迟滞，如不能及时的调整自身的发展战略与方向，适应不同年龄结构人群对高等教育的需求，就容易造成高等教育发展的失衡现象。

总的来说，一切教育活动都是培养人的活动，都是围绕着人的需求

与人的发展展开的。而一个可持续发展的教育系统，是能够随着人的教育需求的变化而不断调整自身的。因此，高等教育作为社会子系统，其可持续发展首先需要协调好与人口子系统的关系，才能实现自身的可持续发展。此外，人口年龄结构具有不可逆的特点，而高等教育系统对外在系统刺激的反应具有内在的迟滞性特点，所以，需及早的加强人口年龄结构与高等教育可持续发展的关系研究，从而最终促进社会的可持续发展。

二、人口年龄结构变迁对高等教育可持续发展的影响

(一）人口年龄结构之变迁

人口年龄结构一般可以划分为年轻型、成年型和老年型三种。国际上通用的划分人口年龄结构类型的指标有三个：少年人口系数（0-14岁人口占总人口的比重）、老年人口系数（65 岁及以上人口占总人口的比重）及年龄中位数。这三个指标相互联系、相互制约，从不同的侧面反映人口的年龄结构特点及未来发展趋势。其中成年型人口的指标为：少年人口系数为 30%-40%之间，老年人口系数为 5%-10%之间，年龄中位数为 20-30 岁之间。低于这一指标的，则为年轻型人口，高于这一指标的，则为老年型人口。[8]

表一：建国以来我国人口年龄结构状况数据

	少年人口系数（0-14 岁）	成年人口系数（15-64 岁）	老年人口系数（65 岁及以上）	年龄中位数 单位：岁
1953 年 第一次人口普查	36.3%	59.3%	4.4%	22.7
1963 年 第二次人口普查	40.7%	55.7%	3.6%	20.2
1982 年 第三次人口普查	33.6%	61.5%	4.9%	22.9
1990 年 第四次人口普查	27.7%	66.7%	5.6%	25.3
2000 年 第五次人口普查	22.9%	70.2%	6.9%	29.1
2010 年 第六次人口普查	16.6%	74.6%	8.8%	35.2

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据表一数据，我国人口年龄结构类型的三项指标中，2010 年少年人口系数已达到 16.6%的低峰值，老年人口系数已达到 8.8%的高峰值，年龄中位数已超过 30 岁达到 35.2 岁。人口年龄结构呈现出少年人口比重日渐减少，成年人口与老年人口比重日益增加，年龄中位数不断攀升的特点。可以说，我国的人口年龄结构类型已经处于从成年型人口往老年型人口过渡的阶段，且极度趋近于老年型人口。

因此，建国以来，我国人口年龄结构的变迁主要表现为以下两大特点：低龄人口比重逐渐缩小、高龄人口比重逐渐增加。人口年龄结构由年轻型转向成年型，并过渡到极度趋近于老年型，人口总体规模由增加型转向稳定型。[2]p29

(二）人口年龄结构变迁对高等教育可持续发展的影响

人口年龄结构变迁对高等教育可持续发展的影响，主要表现为影响作为高等教育生源的人口数目与人口结构。具体到高等教育领域，其直接影响表现在传统高等教育适龄人口减少与非传统高等教育生源[①]的增加。间接影响表现在，人口年龄结构通过影响高等教育生源进而影响高等教育的经费、高等教育的结构、高等教育资源的使用率等。

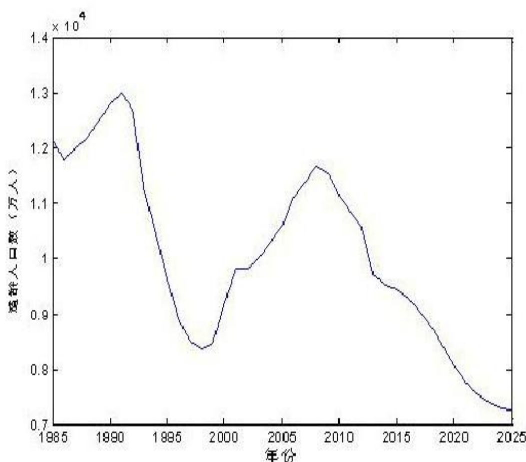
1．传统高等教育适龄人口减少

传统高等教育适龄人口减少的数量形态表现如下，2008 年，我国高等教育适龄人口达到了自 1992 年以来的历史峰值，总人数为 12488 万人，2009 年为 12192 万人，2010 年为 11463 万人，2020 年为 8208 万人，2030 年为 8812 万人，2040 年为 7443 万人，2050 年为 6938 万人。[9]其图形变迁形态如下图所示。1992 年我国高等教育适龄人口数达到一个高峰值，然后人口数以接近于直线的态势往下滑，直到 1998 年跌到新的最低值，然后呈现出缓慢上升的态势，到 2008 年达到新的高峰值，经过 2008 年的小高峰之后，高等教育适龄人口总数开始下滑，到 2020 年时，适龄人口总数降为 8000 万人左右。

2．高等教育经费减少

现阶段我国高等教育机构的经费来源主要有以下几种：国家财政性教育经费、银行贷款和国债资金、民营资本、高校自身的学费收入

和校办企业及科研收入、社会合作资金与捐助等。据统计，2003-2007 年之间，我国高等教育经费来源中，国家财政性经费几乎占据“半壁江山”，已达 47.34%，而学校向学生收取的学杂费位居第二位，占33.09%。[10]这两项经费的总合占高等教育经费的80.43%。因此，我国高等教育成本分担体系中，政府和个人分担的比重较大。而这两项经费来源都与高等教育生源数量有密不可分的关系，国家根据高等教育机构在校生人数来划拨教育经费，而学校向在校生收取学杂费用。因此，我国传统高等教育适龄人口的减少，就容易造成高等教



*图一：**1985-2025** 高等教育适龄人口数变化图[②*

育机构的政府经费与学生个人的学杂费用减少的问题。这对我国的高等教育机构是极为不利的，单一的经费来源使得高等教育机构受制于国家和学生数目，难以实现根据市场需求自主调节自身发展。

除了以上列举的因人口年龄结构变迁对高等教育发展可能产生的影响之外，还有高等教育资源闲置、正规高等教育与继续教育结构不合理、教育管理人员与教师富余等问题。但是，高等教育适龄人口减少除了带来一系列问题以外，还给我国高等教育资源优化配置，教育质量提升，迈入世界一流高校强国之列带来契机。因生源减少，各个高校也会有足够的空间来调整教育发展方向，明确教育原则，优化教育机制，[11]最终提高高等教育质量。因此，不得不说，人口年龄结构变迁是一把双刃剑，通过准确把握人口年龄结构变迁

与高等教育可持续发展之间的关系，能够把握机遇，扬长避短，最终促进我国高等教育实现可持续发展。

三、基于人口年龄结构变迁影响下的高等教育可持续发展战略

其他国家和地区也曾或者正在经历人口年龄结构变迁对高等教育发展所产生的影响。如美国在上个世纪八十年代开始面临高等教育适龄人口减少的危机，其中 18-21 岁人口从 1980 年的 1730 万人，下降到 1994 年的 1411 万人，14 年间减少了 319 万人；[12]p102 日本于上个世纪九十年代中期开始面临高等教育适龄人口减少的危机，根据广岛大学高等教育研发中心的数据推测，2019 年日本高等教育适龄人口将下降到 117 万人，比 1992 年减少 88 万人。[12]p104 而我国的台湾地区则在最近几年开始感受到高等教育适龄人口所带来的冲击。人口出生数自民国 70 年（1981 年）的 41.4 万人降至民国 98 年（2009 年）的 19.1 万人，减幅巨大，而出生率也从 70 年的 23.0‰降至 8.3‰。[13]人口出生率的降低直接导致高等教育传统生源的减少，到民国 105 年（2016 年）少子化所导致的低人口潮将开始全面冲击高等教育的招生情况。[14]

在人口出生率下降，老龄化步伐加快的时代，这些国家和地区的高等教育机构，例如美国的社区学院、日本的小型私立短期大学、台湾地区的小型私立大学等都面临着一定的生存危机。[15]因此，研究这些国家和地区高等教育应对人口年龄结构变迁的措施，有助于我们更加深刻的认识本国的高等教育在人口年龄结构变迁影响下所面临的真正问题与确实可行的应对措施。

(一）提升高等教育质量，建世界一流高校，吸引国外生源。

日本人口基数小，本国高等教育适龄生源难以满足国内的高等教育市场，导致国内教育市场竞争激烈，为了降低国内竞争，日本高校采取提高教育质量，抢占国际高等教育市场的办法，来弥补国内生源不足所带来的一系列问题，尤其是私立大学在抢占国际高等教育市场方面作出了许多努力，有的派出考试负责人到他国招收留学生，有的在他国设置办事处等。在日的外国留学生数量具体变迁为：1980 年只有 6543 人，1985 年增加到 12442 人，1989 年增加到 23816 人，1995 年增加到 53511 人，2002 年增加到 95000 人。[16]台湾地区的高校也在积极准备之中，为教育国际化做准备，台湾东海大学副校长叶芳指出，东海大学准备于今年（2011 年）强化既有系所，发展国际学程，以此面向世界。具体措施有正式推出英语授课的国际学程，明确定位东南亚优秀学生和中国大陆优秀学生为招收

目标等。此外，台湾地区各高校之间要定位明确，做好教育市场区分，分头而进，避免同行相争，实现共荣共生。[17]此外，在制定吸引国际生源的策略时，台湾地区的高校注重从目标国家和地区的政治、经济与社会发展的背景出发进行研究，以此判断目标国家和地区的高等教育需求，做到有针对性的吸引国际生源。如基于发展中国家和地区社会发展的工具化、商业化与市场化，有针对性的推出品格教育与灵性教育的课程。

(二）多样化高等教育结构，完善服务功能，拓展国内生源。

美国的高等教育机构通过采取一系列的生源拓展计划，打破传统的高等高于生源壁垒，开始招收“新型”学生和“非传统”学生，到 1970 年，25 岁以及 25 岁以上学生占高等教育总人数比重的 27.79%。[12]p103 日本各高等教育办学机构在教育终身化思想的指导下，通过拓展国内生源年龄覆盖口径的方法来保持生源，如增设研究所，开设在职与退休人员的进修课程，以达到招生人数。此外，日本高校还通过主动走进高中校园，面向高中生宣传各自高校的基本情况与优势所在，以优先吸引生源。此外，日本高校还通过导入终身就业保障制度，实现就业援助的方式吸引生源。[18]台湾地区各高校除了促使高等教育走向国际化之外，也试图从本地内部拓展生源，如仿效美国大学，在校内经营老人住宅社区，重视回流教育与成人教育，以通过拓展国内生源，缓解人口少子化与老龄化所带来的压力。

(三）开放高等教育市场，允许多方办学，多样化经费来源。

高等教育机构的三大功能分别是教学、科研与服务，都产生于各自特殊的时代背景。在威斯康星思想的影响下，高等教育机构的服务功能日益被重视。在新自由主义思潮的影响下，日本政府开放高等教育市场，允许多方办学。通过提高自身的科研实力，积极与地方产业挂钩，争取企业资金的投入，实现教育经费的多样化，以应对因传统适龄人口减少而引起的教育经费萎缩。重大的标志性事件是日本国会于 1999 年和 2003 年分别通过的《独立行政法人通则法》和《国立大学法人法》等一系列法案，使得日本国立大学独立行政法人化改革进入了实质性阶段。[19]p94 台湾地区的高校也开始重视教育的服务功能，通过产学合作、创新科研、社区服务及募款等方式，拓展学校财源，累积学校基金，确保学校财源之稳定与健全。此外，除了重视高校的教学功能之外，还拓展就业服务的功能，提升学生就业的能力。

(四）重视老年教育，规范老年教育事业。

我国人口年龄结构正极度的趋近老年型人口结构，2010 年 65 岁及以上的老年人口系数已达 8.8%，已经超前于我国经济、社会的发展水平，逼近发达国家的老龄化程度，老龄化呈现出人口基数大、来势猛的特征。据估计，到 2020 年，我国 60 岁以上人口将达到 3.35 亿左右，[1]大约是 2008 年我国高等教育适龄人口生源 1.24 亿的 2.4 倍。而随着我国高等教育大众化进程的加快，人口的平均受教育年限不断上升，人们的终身教育意识逐渐觉醒，对教育的需求也不断地攀升，所以，未来我国老年教育事业的发展空间是极为广阔的。

我国自 1983 年在山东省创办第一所老年大学，迄今全国已有约 2.6 万所老年大学。从规模上来说，老年大学的数目还是较为庞大的，但是，现阶段，我国老年教育事业仍存在许多问题。首先是老年教育事业管理权混乱。现阶段老年教育事业的管理机构有教育部、文化部、老干部局等多种机构，这种混乱的管理局面不利于老年教育事业的顺利开展。第二，老年教育目的不明确。现阶段的老年教育主要是“休闲教育”，其开展具有极大的随意性，容易忽视老年人口的教育需求。第三，教育资源缺乏。老年教育因其管理归属问题，难以与教育系统相结合，共享其丰富的教育资源。此外，老年教育教材、课程体系的编排问题，也需要加以重视。第四，师资力量薄弱。我国现今还没有专门培养老年教育师资的教育机构，师资力量薄弱。[20][21]

美国著名教育学者弗莱克斯纳曾指出，大学应该积极参与社会，成为整个时代的表述（expression of the age）。[22]高等教育系统作为社会子系统之一，其可持续发展受到社会其他子系统的影响，如人口、政治等子系统。因此，高等教育机构首先实现体系内部的可持续发展，才能够积极参与社会，引领社会发展，发挥其社会参与的功能，最终促进整个社会的可持续发展。

在本文撰写过程中，我的导师西南大学教育学部教授、西南大学副校长陈时见教授给我提供了宝贵的修改意见，特此致谢。

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[①]传统高等教育适龄人口指年龄在 18-22 周岁之间的学生。“非传统”学生，指年龄在 22 周岁以上的学生以及参加非正规教育计划的学生等。文献来源：卢彩晨（2010）。<如何应对高等教育适龄人口下降：美国与日本之比较>，《教育研究》，第 11 期，页 102。

[②]图形数据来源：金海珠，李继怀（2009）。<适龄人口对普通高等教育规模影响的教学模型>。《鞍山师范学院学报》，第 6 期，页 14。

Problem-based Learning in school field-trips to China: a case study

LAU, Chui Shan, Tracy & CHOI, Kwok Kwong

Background

Education for the development of critical thinking and problem-solving skills through critical study of real-life issues and problems has been highly praised in the past decades with a paradigm shift that has been taking place in the field of teaching and learning (Falk & Bailing, 1982; George & Bennett, 2004). Recent educational reform in Hong Kong (CDC, 2002; EMB, 2005) also urges a pedagogical shift as conventional classroom learning is unable to break learning out of the constraints of subjects and examinations. It is expected that the integration of various forms of learning activities within and outside the classroom will progressively enable students to have an interesting and diversified learning experience.

This study therefore explores pedagogical approaches and teaching and learning methods that will bring learning closer to the expectation of this educational reform. It explores the application of a form of problem-based learning in the context of a school tour to China introducing students to elements of China studies. The discussion is based on reflections on the practical application of this educative strategy in a specific school situation, and reflects on the application of problem-based learning for understanding the role of the teacher and learner.

Starting the Problem

To deepen students' understanding of Chinese culture and to deepen national education through Mainland exchanges, thousands of students have made school visits to China with funding provided by the EDB. However, whether these tours are effective in "enhancing students' national identity and sense of belonging of being Chinese" and "facilitating students to align

learning experiences with curriculum objectives and content" as the EDB intended (EDB, 2011, pp.1) is questionable.

The balance between the cognitive and affective missions of nationalistic education is vital to the cultivation of balanced citizens. It affects the effectiveness of a school field trip to China in contributing to the development of open-minded national education for cosmopolitan and liberal cities like Hong Kong.

In many cases, teaching in a field trip only focuses on education about and in the field and assumes students will benefit as long as field trips are arranged. And the didactic and sightseeing approaches to field-trip learning to China lack a serious engagement with society and community. This study suspects that most students and indeed society are not well served by these approaches, particularly as we are confronting post-reunification challenges that demand global insight and national knowledge. In a few exceptional cases, there was the promotion of education for the development of critical thinking and problem-solving skills through critical study of real-life issues and problems (Falk & Bailing, 1982; George & Bennett, 2004).

Problem-based Learning (PBL) can be an effective learning and teaching strategy in attaining the goals of the new era as PBL motivates students to take an active role in learning. It uses an issue-based approach as the impetus for learning and fosters the acquisition of interdisciplinary knowledge, team work, decision-making skills, critical thinking, presentation skills and problem-solving skills (Bligh, 1995; Casey & Howson, 1993). Students are encouraged to take control over their learning and raise their own questions and issues by themselves. This approach requires learners to be actively involved in a variety of practical learning experiences. Therefore, we believe whether the visit has the desired impact on the cognitive and affective development of the students depends very largely, if not wholly, on the design of the learning and teaching, the experiences prior to the lesson, and in particular the role of the teacher in facilitating the teaching and learning in the field.

Method of Study

This study employs a multi-method qualitative approach to collecting data on students' PBL learning experiences. The data includes onsite participatory observations and field notes, students' post-field trip reflective journals, and interview and documentary analysis, all of which allow us to acquire a deeper understanding of students' field-trip learning processes and outcomes in the PBL program. In essence, this study aims to understand the complexity of a single case with detailed descriptions rather than looking for generalizations (Stake, 1995). The case itself cannot be a strong representation of all other cases with a similar nature. While this case study is "a-theoretical" (George & Bennett, 2004), it can be illuminative in examining critically teachers' practices in a school visit to China and the connectivity between classroom (formal) and tour (informal) learning experiences.

The research was conducted in five phases. The first phase was documentary analysis. After reviewing government documents and the various schools' China tour journals and programs, the researchers identified School A as a case for this research study. The rationale for choosing this school was for the following reasons:

1. It is one of the few schools in Hong Kong which has an unbroken 13-year Mainland visit program;
2. This school is probably the only Band-One EMI school which has the tradition of organizing tours to China;
3. The teachers and the program director are dedicated to PBL;
4. This school has a collection of tour journals produced from 1991-2010 covering more than 40 school tours to China and involving more than 1,700 students;
5. This school has many partner schools. Thus, apart from the involvement of the whole school, over 88 schools were invited to collaborate with their host school and students and teachers of these 88 mainland schools also shared the interactive learning and teaching experiences.

The researchers commenced the second phase through interviews with the teaching staff involved in school visits to China in the past

two decades. General features and approaches which teachers utilized in various sites in China as a conduit for PBL were recorded. Phrase three and four consisted of participant observations of the pre-trip briefing and learning activities during the school visit to China. Phrase five was accomplished through participant observations of post-trip activities, followed by an interview with the teacher and a group interview with the six students recommended by the teacher. Subsequently, the various sources of data were cross-referenced and substantiated by relevant documents and literature in the analysis.

Taking into consideration all of the above, it becomes apparent from the observation and interview data that field trips to China of School A are structured, and the students are provided with good opportunities to learn in an informal manner when compare with features of successful school group visits, such as preparation and orientation emphasis on first-hand experience and the use of PBL. There is no doubt that students' knowledge about China is enriched, problem-solving skills are enhanced and self-directed learning is promoted.

Development of Knowledge in a Field Trip

Students are equipped with general background information about the destination. They are required to conduct an in-depth investigation into at least one single China-related problem of their choice. At least six months of preparation have been invested in studying that single China-related problem. Then they have to conduct research by themselves in the field. All these requirements and preparations have definitely enriched students' knowledge of China, in particular in the area of the problem that they chose.

Development of Problem-solving Skills

The PBL settings encouraged the students to experience learning through an inquiry approach. They set the problem and their own hypotheses and defined learning issues. They analyzed facts and ideas from the site critically. Their learning was guided by their own questions, they decided their own research methods and they constructed instruments to collect empirical data which would be

used to support or reject their decision. According to Hungerford and Volk (1990), such empowerment in learning can help internalize students' locus of control. Students have acquired in-depth knowledge and extended their comfort zones in learning. Critical thinking and problem-solving skills have been practiced while they were working on the problems in the field.

Development of Self-directed Learning

Field-trip learning could be very personalized and contextualized, since it involves a dialogue or interaction between the people and the environment. In the PBL tour to China, the students had a problem statement concerning different real-life scenarios. PBL offered them a framework for developing self-directed structured learning. They had to tune the problem or/ and the solution with any change of research plan or development. PBL in the field therefore provided a useful framework and direction for school tours to China if students' independent and critical thinking were valued.

Conclusion

This paper has reported our first attempt to use PBL in a field-trip program in China with a local EMI school to see how they have experienced field-trip teaching and learning. Through the lens of a 13-year School Mainland Visit program, a rich portrayal of how these school visits to China create a student-oriented PBL experience has revealed and illuminated significantly different teaching behaviors from those which were normally exhibited in more conventional teaching practices.

Obviously the workloads of teachers in field-trip teaching and learning is heavy, teachers need to be well equipped with professional literacy and competency in using field-trip learning to help students construct knowledge and concepts, develop higher-order thinking skills, nurture positive values, and foster interpersonal and social competency. However, through the PBL field program, students are focused on one problem during the fieldtrip. They are provided with a framework in which they learn to take full control of their own learning. In this empowered

learning process, the students acquire more in-depth knowledge and extend their learning by using knowledge learnt in a cross-disciplinary approach. In doing so, they have the chance to practice and develop their critical thinking and problem-solving skills. The PBL approach also offers students a framework for further development of their self-directed learning in the future.

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Diverse education system: issues in non-Chinese education in Hong Kong

Alka SHARMA

Research Focus

Extant literature exploring how the relationship between ethnicity and social class stratification is reinforced from one generation to next has established the role of structural constraints (Bourdieu & Passeron, 1990; Ogbu, 1994), school policies and practices (Diamond, 2004; Oakes, 1985), curriculum (Apple, 1983), family and immediate community (Bankston, 2004; Hao & Bonstead-Bruns, 1998) and, last but not least, students' responses as well as adaptations to their context (Willis, 1977). Scholars suggest that such factors contribute to the endowing of privileged status in the education system to children of higher-middle class. In the context of academic attainment of racial/ethnic groups, several studies also emphasize that, to a great extent, racial/ethnic limitations are not applicable to students if they belong to the higher/middle class (Fejgin, 1995), although on this issue there is lack of consensus as few scholars still consider racial/ethnic attributes playing a more significant role in the academic attainment of any child (Lareau & Horvat, 1999; Ogbu, 2003).

In this article, I show that higher social class ethnic minority students possess a more positive perspective towards their future academic attainment and self-identity. In Hong Kong, the choice of schools is directly mediated by students' social class. This will be explored by comparing beliefs of South Asian (SA) secondary students attending local public schools (designated), English School Foundation (ESF) and International Schools.

Research Methodology

Data used in this article is part of my PhD dissertation which explores reasons behind the absence of large number of SA attending local public schools in Hong Kong. My research began by exploring diverse socio-psychological patterns in the immediate

social environment of SA minority students. Data collection and analysis followed grounded theory methodology. This study is exploratory in nature. Although my research mainly aims to explore the academic experiences of students studying in local public schools, codes developed during the initial data analyses process directed me to explore views of students studying in ESF and International Schools. Data from interviews with students studying in local schools and their parents showed that SA students would have academically fared better if they had been studying in private schools.

> I think we have not been able to provide good schools to our children. This is what we feel when we see our children not performing. (Indian mother whose daughter studies in a local school)

Teachers of SA origin stated that they have only seen SA students studying in ESF or International Schools academically successful in Hong Kong and considered students, parents and teachers equally responsible for the poor academic achievement of SA students.

> To me the only solution is if the SA community has their own school, like the Japanese school and Korean school. (Native English teacher of Indian origin teaching in a local public school)

Two questions were formed on the basis of the above insights to explore the issue: 1) Why do students, parents and teachers think schools with a non-local system are better? 2) In what ways do the student profile vary according to different systems of schools? These two questions emphasize that all schools are performance-oriented and focus on positive psycho-social needs of students.

South Asians and the Diverse Education System

In Hong Kong the presence of ethnic groups other than the dominant Chinese group constitutes just five percent of the total population. The education system of Hong Kong is a reflection of

structural inequality which is fundamental to any economic system. This is very much reflected in the education system serving students representing its five percent ethnic minorities. Students from lower income groups mainly study in local schools which are designated for ethnic minorities whereas their in-group peers from middle-higher income groups attend ESF and International Schools.

Designated schools which are government or government-aided schools receive full government funding, and must follow the government's curriculum and rules for admitting students. Students in these schools have the right to enjoy basic education in public sector primary and junior secondary schools (up to Secondary 3) free of charge. Students who aim to continue their education and qualify for upper secondary education may attend government or government-aided secondary schools for a relatively small fee. Both of these follow the local curricula mainly taught by mainstream teachers. A few designated schools are also direct subsidy schools (DSS) which means they receive financial support from the government. The mechanism for determining their funding is that they can charge tuition fees, within limits, and then the government will give them the difference between the amount they have collected, and the amount they would have received as ordinary aided schools for the number of students registered. Although DSS schools also follow the EDB rules, they enjoy fairly wide freedom in terms of choosing their students and setting curricula.

ESF schools are supposed to be one of the legacies left behind by the colonial rulers. Initially, they were established for children of British officials serving the colonial government. At present, besides students from native English speaking groups, the student population also includes Chinese as well students from other ethnic groups representing higher or middle income groups. ESF receives a subsidy from the government and has several schools for non-Chinese speakers all over Hong Kong. These schools follow international curricula, hire expatriate teaching staff and charge much higher fees compared to the local public or private sector

schools. Parents of students attending ESF primary schools currently pay HK$63,000 whereas in secondary school it ranges from HK$95,100 (Years 7-11) to HK$97,100 (Years 12-13) (ESF, 2011).

In Hong Kong, the term 'International School' covers all those schools which do not follow the local system of education (Bray & Yamato, 2003). Like ESF, International Schools also follow international curricula, hire expatriate teaching staff and charge very high tuition fees. Although International Schools do not receive any direct government subsidy, they are supported through subsidized land/building allotment during their establishment phase (Sung, 2005).

Overtly, the education process is a combination of fairness and merits, which conveys the notion that success or failure is attributable to individuals rather than to the system as a whole. Following the principle of utilitarianism, Hong Kong has had nine years—six in primary school and three in secondary school—of free and compulsory education in operation since the 1970s. Still, in Hong Kong, socioeconomic measures explain a portion of the advantage higher/middle income groups enjoy in the education system. The concept of maximally maintained inequality suggests that the policy of education for all will not necessarily diminish the impact of social class while determining chances of higher education (Raftery & Hout, 1993). To a great extent it is believed that the achievement gap is mediated by the academic self-concept held by the students. Academic self-concept can be defined as students' self-perception of their academic ability formed through personal experiences (O'Mara, Marsh, Craven, & Debus, 2006) and is considered multidimensional (Rosen, Glennie, Lennon, & Bozick, 2010). However, scholars believe that the role of the school environment or climate cannot be denied as a significant determinant of self-concept (Loukas & Robinson., 2004; Norton, 2008).

This study explores the relationship between school climate and the formation of academic self-concept among SA adolescent

students in Hong Kong. Data show significant within-group differences related to the development of academic self-concept among SA students. Such variations in academic self-concept are directly mediated by the school context as the type of education offered by the state is based on social class. This emphasizes that it is difficult to ignore the 'class differences' while making sense of the within-group achievement gap in the SA minority group in Hong Kong. Results show that the quality of school environment appears to be the single most predictive factor in SA students' academic achievement and attainment.

Here, I pursue the relationship between school environment and academic concept using qualitative data from three types of schools attended by SA adolescents in Hong Kong. I focus on the school context as it is considered a key factor. School context determines school policies, administrative issues as well as the norms and attitudes of teachers. SA students from the three types of schools expressed different views related to their identity and future academic attainment. Their views of identity emanated from how the students interpreted their 'South Asianess' in relation to the kind of school they attended.

While discussing perceptions held by SA students, I show how ethnicity and class work in combination. A common notion and research show that ethnicity and class are often interrelated in complex ways, hence it becomes difficult to define a clear division. In this article, I argue that students' ethnicity became a dominant determining factor in the case of students from lower income groups, whereas it did not exist in the lives of middle/higher class students. Those who linked South Asianess to a higher class and status position tended to react more positively towards their psycho-social identity and had high academic expectations. SA students studying in designated schools use the term 'ethnic minority' in their day-to-day happenings quite frequently. In interviews, they used phrases like 'I am an ethnic minority student,' 'As an ethnic minority family my parents are very supportive,' 'This school is doing a lot for ethnic minority students to settle in Hong Kong.'

Further, how students' interpreted their South Asianess varied and was reinforced according to school goals. Designated schools, which are exclusively meant for non-Chinese (the term used for students belonging to other ethnic groups than Chinese in the education system) students, explicitly convey to them the message of their minority status.

> Nowadays you go to any school where there are non-Chinese people they have so many teenage problems. (Pakistani girl studying in Secondary Six, May 2008)

Use of the term 'non-Chinese' in the above statement also emphasizes the segregation of SA students from their mainstream peers. Here, we see that the girl student only talks about schools attended by ethnic minority students and considers teenage issues only applicable to the minorities.

ESF and International Schools aim for education for various nationalities living in Hong Kong, thereby emphasizing the national origin of their students. When asked about their identity, they always referred to themselves as 'a Hong Kong-born Indian/ Pakistani.' When asked to explain the meaning of ethnicity, most of them related it to religion. They were quite unaware of its use in the national discourse of Hong Kong. Further, designated schools are based on a monocultural ideology whereas ESF and International Schools goals offer multicultural education. In designated schools, the majority of teachers are from the mainstream and typically saw SA students as being less academically competent compared to students from the majority Chinese group, whereas teachers in ESF and International Schools tended to view SA students as academically competent compared to any other student of their age. SA students in designated schools complained that they are the victims of the State's language policy.

> Don't you think we are forced to learn Chinese language whereas students in International Schools don't require Chinese language?

Besides the compulsory nature of Chinese language, SA students with higher expectations complained that they study in low or non-competitive academic environments and cannot move to higher band schools as they require learning of higher level of Chinese language. They believed that in designated schools mainly students with higher ability suffer as teachers have to pitch their teaching to the ability of all students.

> If I was in Band One or Band Two schools I would have done much better because, first of all, the atmosphere will be good. Even the syllabus will be much better because in the Band Three schools they skip some of the difficult things and they don't tell the other students. Even teachers will help you more.

It is a well known fact that all designated schools are 'Band Three' schools. Students who really wanted to perform reported that they will not be able to achieve well as compared to Chinese students, as they are studying in Band Three schools. SA students who really wanted to achieve and are trying hard expressed the view that in their school the overall academic standard is very low. For them their class environment lacked motivation and competition. When I asked how they are different from Chinese students studying in band three schools, one student replied:

> If a Chinese student performs very well in a Band Three school, she can always go to Band One or Two, because they will not have a problem with higher Chinese and their parents can afford it also.

On the contrary, among ESF/ International Schools such a classification doesn't exist, as all are performance-oriented. When asked about their expectations, large number of students studying in designated schools irrespective of their gender reflected very low hopes about their future. A common response to my question seeking to inquire about their future occupational attainment included mention of jobs like 'security guards' or 'construction workers.' Their low hopes rested in their immediate community's

past performance at HKCEE (Hong Kong Certificate of Education Examination: the first public examination taken by students at the end of Secondary Five) and the compulsory requirement of Chinese language to access tertiary education as well as government jobs. In addition, they expressed their future expectations in relation to opportunities in the local sector unlike their similar-age peers in ESF/ International Schools who possessed very high expectations completely embedded in overseas education and employment opportunities.

Discussion

Such a diverse system of education only meets the needs of a privileged section of the society, hence contributing to the existing stratification within the SA group. Within the group, the stratification gets legitimized due to lack of equity of opportunity to learn. Banks (1993, p.6) defines multicultural education as a "total school reform effort designed to increase education equity for a range of cultural, ethnic, and economic groups". This system of education strongly suggests that existing conceptions of education are inadequate for promoting equity in Hong Kong. Instead reflects that state public schools are still struggling to achieve equal educational opportunities for ethnic minority students and to close what is commonly referred to as the "minority achievement gap"—the lower average test scores, grades and university attendance and the higher dropout rates

This study also has practical significance from the perspective of policy implications as both the groups irrespective of their social status fail to contribute towards the overall prosperity of Hong Kong. First, the lower number of South Asians from disadvantaged groups in higher education shows that this group is being left behind on a large scale. As a result, most of the South Asians from this section have very meagre or poor chances of achieving self-economic stability. Rather they show high reliance on government funds, as under the Comprehensive Social Security Assistance Scheme in 2006 there were 8.4% Nepalese and 28% Pakistanis as compared to the national average of 4.7% (Chung, 2007). Secondly, a large number of students from ESF and

International Schools move overseas for further education and employment, clearly representing a drain of government's resources.

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Comparative education and the three-dimensional education puzzle

Roger Y. CHAO Jr

Introduction

This article focuses on the nature, value and utility of comparative education in solving what I call the three-dimensional education puzzle—the question of how education is affected by the three interlocking dimensions of culture, politics and economics. This paper presents and discusses a conceptual model of the puzzle, and then discusses comparative education and its value and contribution towards a broader and holistic understanding of education.

This paper argues that comparative education's value lies not only in its influence on educational policies, but also in generating knowledge, empirical support/databases and discourses, which contribute to the pieces of the complex understanding of education and its relationship to the three dimensions. A number of comparative education cases are presented, classified and located within the puzzle to support the argument.

The Three-Dimensional Education Puzzle

Education can be considered to have originated along with the advent of humanity especially when it is considered within the current framework of lifelong learning. As a complex social construct, education is puzzling given its changing nature, purpose, utility and the way it has evolved along with society and the social environment over time: from its philosophical beginnings to its pragmatic utilitarian function in our current times; from its purpose of acquiring knowledge for the purpose of understanding and its noble task of making society better to being a support industry to the knowledge-based economy. Education providers have expanded from the religious orders to include public and private (including for-profit) education providers and the dominant language of academia has changed from Latin in ancient

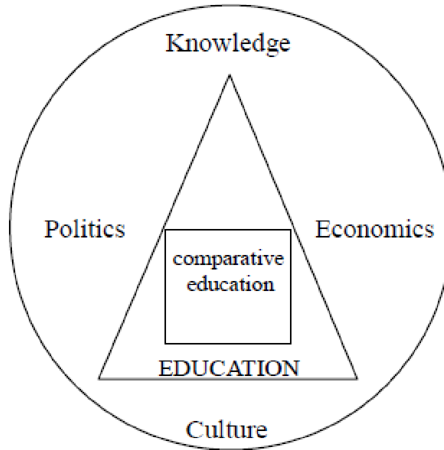
times to English in the last few decades.
Education needs to be broadly understood within three inter-related dimensions, namely: culture, politics and economics. The three-dimensional education puzzle (Figure 1) incorporates a social constructivist stance that everything (with the exception of natural sciences) is socially-constructed and influenced by social forces: social structures and human agencies. Culture, politics and economics directly or indirectly have a significant influence on both social structure and human agency, and thereby on education.

As with most social constructs, education is not only influenced and used as a tool by society through the various social structures and human agencies, but it also plays a role in the construction of those social structures and human agencies. There is a dynamic interaction between the above-mentioned social forces, which requires a holistic or broad understanding of education. This initial conceptual model is developed on the basis that education should be understood within a three-dimensional framework considering the dynamic interrelationship of education and society, composed of both social structures and human agencies.

Taking inspiration from Bray and Thomas (1995) framework for comparative education analysis, the three dimensional education puzzle attempts to show the inter-connectivity of the three dimensions and their influence on education. The three-dimensional education puzzle has three components: the circle, the triangle and the square. The circle represents society, the triangle the field of education and the square comparative education. Within the circle are the three dimensions of influence: culture, politics and economics. Aside from the three dimensions, knowledge is also incorporated in the circle. This is due to the fact that knowledge is influenced by society and used in education both as a product or a tool as a consequence of the three dimensions. Culture is placed under the triangle with the rationale that it is acquired and developed over time. Politics and economics, aside from being volatile and directional, usually support each other's influence in education. The three dimensions' sociological influence on society usually expressed through social structures and human

agencies reflects the need for a broader and holistic understanding of education—hence the three-dimensional education puzzle.

Figure 1: The three-dimensional education puzzle



Education is influenced by the three dimensions, which is the reason for its representation as a triangle, while comparative education is represented as a square taking into account the various units of analysis. Bray and Thomas (1995) excellently presented these in a matrix of seven geographic/locational levels, six non-locational demographic groups, and seven different aspects of education and society. This particular matrix can illustrate the role of comparative education in solving the broad and complex three-dimensional education puzzle.

The three dimensions and education

The connection between society and education is dynamic and each influences each other. Society, through social structures and human agencies, helps determine the nature, purpose and utility of education. Education, in turn, serves to provide society's education needs and helps facilitate its evolution. Both society and education

are influenced by the three dimensions. Cultural aspects of education have been studied by education researchers for decades. Over the past two decades, with the growing number of political and economic catastrophes, the use of politico–economic analytical frameworks has been gaining prominence.

Culture, understood as a common set of attitudes, beliefs, behavior and knowledge that identifies a person, institution or a group, constitutes a significant influence on education. Common history/experience, understanding and learning also forms a nation or region's unique educational culture, which includes its understanding, motivation and barriers with respect to education and the learning it hopes to achieve (Assmann & Czaplicka, 1995).

Cultural influence on education is prevalent and highly visible, especially at the regional level. The influence of the Confucian heritage on East and parts of South East Asia, the Islamic heritage in South Asia and the Middle East, and the Christian heritage of Europe and the Americas in undeniable. At the sub-national level, cultural influence and differences have resulted in variations in educational policies, practices and curricula. Various local cultural contexts have been adopted within a broad national framework, especially when permitted by the nation state's legal framework.

A number of factors such as historical evolution, colonial heritage and inter-cultural exchanges between and within nations and regions have resulted to enculturation, homogenization of cultures and hybrid cultures worldwide.

In spite of the cultural influence on educational policies, the political and economic dimensions affecting education have been more prominent in recent decades, especially at the national and regional level. The interaction between social structures (e.g. nation states, regional/multilateral organizations) and human agencies (e.g. learners, teachers, employers and other key stakeholders) reflects political and economic influence as well. It is also reflected in the globalization and regionalization projects within education (especially higher education), the neo-liberal focus in education, the

knowledge society and knowledge-driven economy discourse. UNESCO's Education for All (EFA) and the recent focus on environment education, education for sustainable development and inclusive education (gender and equity), distinctly shows the influence of the political dimension on education. Key nation states, multilateral and regional organizations and civil society organizations have exerted influence, resulting in shifts in major education policies. The establishment of public and private (for-profit) education providers and the current use of English as the academic language arise from the scientific awakening brought about by the enlightenment and the political and economic changes in society. The utility of education in influencing both the political and economic sphere was also realized and harnessed. Education became a tool for societal change and the means to provide the human resources required by the global economic machinery.

Global higher education trends (such as massification and privatization), the renewed focus on lifelong learning, and the move towards regional recognition of higher education qualifications are mostly driven by the economic dimension. Political and economic influence of the neo-liberal advocates (e.g. World Bank, International Monetary Fund (IMF) & Asian Development Bank (ADB)), along with the World Trade Organization's position on education being part of the service industry (subject to the General Agreement on Trade in Services (GATS)) have not only pushed education to increase its focus on serving the economy but also created an international education market, especially for higher education.

Furthermore, discourses on academic capitalism, the emergence of the entrepreneurial university and the advent of neo-liberalization within higher education display a distinct economic flavor. Higher education's current role in supporting the global (knowledge-based or otherwise) economy in terms of providing the required manpower and the brainpower for sustainable economic growth is predominantly economic in nature.

In reality, education is a broad complex puzzle and it can only be

understood in totally from a holistic perspective. The three-dimensional education puzzle represents a harmonized analytical framework to understand pieces and parcels of this complex puzzle through the analytical lens of the three dimensions: culture, politics and economics. Understanding the utility of comparative education and how it contributes towards a holistic understanding of education requires an answer to the questions, "What is comparative education? What influences the field? And what is its contribution and use to society?" The next section focuses on answering these questions. Furthermore, the three-dimensional education puzzle discussed earlier will be used to illustrate comparative education's contribution towards understanding and solving the puzzle.

Comparative Education: Values, Utility and the Three-Dimensional Education Puzzle

Comparative education can be understood as comparing various aspects (e.g. curriculum, institutions, and policies) of the entire education continuum, consisting of formal, informal and non-formal sectors. It is also a well-established academic field of study, often associated with the comparison and analysis of educational systems, policies and practices usually at national levels. Comparative education also focuses in part on sub-national levels (provinces, districts, institutional, classroom and individual), with respect to various aspects of education and society (e.g. curriculum, management structures, political change and labor markets) in determining educational challenges and change (Bray, Adamson, & Mason, 2007b; Manzon, 2011). Education has been compared across time, cultures, values, achievements, didactic and pedagogical approaches and organizations. Global and regional education trends are also being compared along with the different approaches and practices undertaken at various institutions, nations and regions.

Furthermore, the field of comparative education has established a number of comparative education societies across the globe, most of which are affiliated to the World Council of Comparative Education Societies (WCCES). The formal establishment of a social

structure within the field of comparative education facilitates the professionalization of the field and its members, but most importantly a harmonization of ideas and a strengthening of its voice within the academic arena.

Comparative education is therefore a socially organized academic field covering multiple dimensions and levels of analysis. As a social construct, comparative education has certain values and utility to the social world.

Values and utility of comparative education

Manzon (2011) describes comparative education as both a constructed and a constructive field. Internal and external social forces (social structures and human agencies) influence how the field views society, its nature, purpose and utility within the societal sphere. Education comparativists, such as the WCCES and its member comparative education societies, form the internal social forces, while individual stakeholders, nation states, regional/multi-lateral organizations are just some of the external social forces influencing comparative education. These internal and external factors, influenced by the three dimensions, form the value of the field and are expressed in its outputs/contributions. This is very similar to how a person's culture, education, and history along with external societal forces (family, community and the broader society), are reflected in his life, work, and contribution to society.

Bray, Adamson and Mason (2007a) noted that comparative education has different models, emphases and insights, and that its value lies in both facilitating understanding the unfamiliar and in challenging the assumed assumptions of the familiar (p. 377). Comparative education has facilitated intellectual and political education discourses; gathered empirical data; produced and improved knowledge related to education; and lent support (or argued against) political and economic directives. Furthermore, the field of comparative education has been engaged in social construction and deconstruction indirectly using educational policies.

A clear example of comparative education's role in education discourses can be seen in the numerous comparative researches related to the Trends in International Mathematics and Science Study (TIMSS) and the Program for International Student Assessment (PISA) results and corresponding national education policies and practices. Empirical data are collected and analyzed to facilitate the production or improvement of education-related knowledge, often used to support political and/or economic directives. This is clearly shown in UNESCO's EFA, GATS-related research, Bologna Process and European Higher Education Area (EHEA)-related research and various comparative studies on national and regional higher education trends.

Furthermore, comparative education research on human rights, sustainable development, health and environment education not only shows support for political directives but the field's indirect influence in social construction/deconstruction.

Locating comparative education within the three-dimensional education puzzle

As discussed above, comparative education falls within the three dimensional framework, contributing to a broader and holistic understanding of education. Here, a number of comparative education outputs will be mapped on to the puzzle. Aside from demonstrating the framework’s utility, this also shows comparative education's contribution to the overall understanding of education since its establishment as a field of study.

Table 1 shows that comparative education studies can differ in terms of their dominant dimension, focus and level of analysis. The four types of comparative studies are not meant to be a typology, but to illustrate comparative education's utility in filling the empty spaces within the three-dimensional education puzzle. Furthermore, the dominant dimension, level of analysis and focus are not fixed as they tend to shift with varying factors within society.

Culture-related studies are usually carried out in the institution or

sub-national space, while other types of studies in the table tend to focus on national, regional or even at the global level. Economic and political dimensions are usually the dominant dimensions for TIMSS/PISA; Bologna/EHEA; and EFA-related comparative studies, with culture dominating the other types of studies in Table 1. Culture-related studies tend to focus on micro-level issues such as curriculum and teaching methods, aside from the equity issue. Competition, governance, policies, quality and relevance seem to be the focus of studies at the national, regional and global level.

Study Types	**Dominant Dimension**	**Dominant Level of Analysis**	**Dominant Focus**
Culture-related	Culture	Institution/sub-national	Curriculum, methods & equity
TIMSS/PISA	Economic	National	Quality, competition, labor markets
Bologna/EHEA	Politics	Regional	Policies, governance & labor markets
EFA/ Shadow Education	Politics, economics	National/regional/ global	Policies, equity, educational finance

Table 1: Dominant areas of some comparative education studies

Comparative research studies such as those related to EFA and shadow education range from a national, regional and even a global focus, with culture and economics playing a dominant role. Bray's research on shadow education is an excellent example as he focused on the national, regional and global levels at different points of his research (Bray, 1999; 2007; 2011). Multi-level analysis of the same or related topics facilitate a deepening understanding of the inter-relationship of culture, politics and economics with the

field of education.
Comparative education is not simply about comparing the different contexts and aspects of education, but a dynamic intellectual and structural approach towards understanding the relationship of education and society within the three dimensions. It brings to the table numerous and varying pieces of the education puzzle. Although not all the pieces may fit into the puzzle, the options brought about by comparative education are a significant contribution towards a broad and holistic understanding of the three-dimensional education puzzle.

Education (and comparative education) should not only be used as a tool but should be the tool for societal change. Rather than being used by powerful societal forces, education should take charge by re-embracing its traditional purpose in pursuit of all knowledge (not limited to its commercial utility) and its mission of creating a better society (not one shaped by politics and economics). Understanding education and its relationship with the three dimensions increases its own understanding of its strength, and enhances its ability to influence and take action in delivering its traditional missions: the pursuit of knowledge and the betterment of society.

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Comparative education as an instrument in promoting Education for Sustainable Development

Xiaoguang SHI

Introduction

The theme of CESHK Annual Conference (2011)—whether or not Comparative Education can contribute to social justice and sustainable development—has really been deemed as significant and necessary to lead participants to focus on such a global concern. The reason is simple, for the global knowledge-based economy that has defined our age has resulted in a great social transformation from an old paradigm to an emerging one, politically, economically and educationally since the late 1990s and early 2000s onward (Suarez-Orozco & Qin-Hilliard, 2004). All of us benefit from the dramatic changes and are impacted by the shift, so that no-one might doubt that the change has brought us both opportunities and challenges. Regarding the challenges, one of the most serious realities confronting us is that the Earth—the only Home of Humans—is very much suffering from the rapid growth of economic activity, the explosion of the world population and over- production and consumption of energy and fuels. Worse than that, climate warming is threatening the lives of millions of people as well as other species. In that sense, a reflection about climate change in a framework of sustainable development becomes necessary and important, which requires broadening the focus of analysis and examining points of intersection between apparently disparate issues, and making connections among them. This paper suggests that comparative education can serve as an instrument in promoting education for sustainable development (ESD)—the questions raised by the theme of the CESHK Conference.

Background: Concepts and Policies

Four decades ago, the term 'sustainable development' (SD hereafter) or sustainability was first introduced and discussed in the symposium on Human Environment held by UNESCO in Stockholm, Sweden in 1972. Since then, the notion has permeated

the vision of global communities. During less than half a century, along with an increasing deterioration of the living environment that human beings rely on, the issues of SD, both conceptually and practically, are attracting wide attention in academic circles as well as public communities worldwide. As Dryzek (1997) noted, the concept of SD has been “the dominant global discourse of ecological concern”, and also has entered the lexicon of international publications and dictionaries. According to the authoritative definition in the *Brundtland Commission Report*, SD is a matter of ensuring that development “meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Commission, 1987, p.8).

Even though the definition of the conception is still contested due to it being subject to a range of different interpretations, the discourse of SD provides the basis for discussing some relevant issues, and invokes utopian visions of balance and harmony between society and the wider environment. After the publication of several landmark documents, such as the “Rio Declaration”, and “Agenda 21” signed by more than 170 national delegations at the first Earth Summit in Rio de Janeiro in 1992, the issues of SD have become common subjects in different fields of studies, such as ecology, environics, economics, sociology and politics as well as education. These various areas of studies with their unique approaches and methods of the disciplines or cross-disciplines tended to form the basis of analysis or the interpretative framework of education in promoting SD.

Historically, efforts to link education with SD date back to the beginning of the 1990s. More explicitly, Agenda 21 of the UN was the first international document that identified education as essential for achieving SD in general. It is highlighted the areas of action for education named as ESD, which aims to help people to develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, present and future, and to act upon these decisions. From the lexical aspect, the terms ESD, Education for Sustainability, and Sustainability Education are interchangeable. All of them can be described as the

practice of teaching for sustainability, which indicates that the idea of SD is to be put into policies and actions in education and teaching worldwide. ESD also has various dimensions and implications for understanding and reforming current schooling systems from K-12 to postsecondary education in different countries and cultures. At the international level, organizations such as the UN are playing a crucial role in promoting ESD. In December 2002, the UN General Assembly adopted a resolution declaring 2005-2014 the UN Decade of Education for Sustainable Development (UN-DESD), and UNESCO as the lead agency of this initiative. The goals of the UN-DESD are to provide an opportunity for refining and promoting the vision of, and transition to SD through all forms of education, public awareness and training; and to give an enhanced profile to the important role of education and learning in SD (UNESCO, 2004). Simultaneously, at the national level, member nations were encouraged to establish their own DESD-oriented initiatives and policies. For instance, both developed nations, such as USA, UK, Sweden and Japan, and developing nations such as China and Central Asian countries, have put the issue on the top of their agenda in the framework of national development. The latter part of this paper will shed light on the issue in order to figure out what those member nations have done in responding to the proposals of the UN-DESD.

Focusing on a "Hot" Topic: A Mission of Comparative Education

Comparative education as an object-focused area based on a broad range of disciplines, and can play a vital role in promoting education reform and development in a way that focuses on "hot subjects with wide international perspectives, rather than on a single dimension of a certain discipline in a given country. Noah and Eckstein (1969) gave us a brief interpretation by defining the field of comparative education as an intersection of the social sciences and cross-national study—basically it might be perceived as an applied social science. From its birth in the 19th century, comparative education was used as an instrument in promoting the reforms of one country's educational system by borrowing from another country. As Holmes (1972, 1984) notes, the nineteenth-century pioneers or precursors of this discipline, such

as Cousin, Arnold, and Harris, considered that comparative education "can, and should, serve a useful function by making possible more discriminating choices when reformers propose to copy features from another system".

During the period between the end of the 19th century and the first half of the 20th century, the feasibility of educational "borrowing" was strongly challenged by some other comparative educationalists, such as Sadler and Kandel, who warned educational administrators and policy-makers of the dangers of direct international educational and systemic institutional borrowing. Since then, comparative education began to emphasize the importance of contextual factors in the analysis and development of education, but by no means has the utilitarian purpose of comparative education been lost or degraded. On the contrary, some argue that the formulation of practicable alternative policies to improve domestic education has been one of the important purposes of comparative education. As Noah (1985) concluded, comparative education has four purposes: to describe educational systems, processes, or outcomes; to assist in the development of educational institutions and practices; to highlight the relationships between education and society; and to establish generalized statements about education that are valid in more than one country.

In the post-war period, some comparative education positivists, such as Noah and Eckstein and Popper, who were almost sociologists of education, no sooner began to apply statistical techniques in comparative education research. Empirical methods and psychometric and econometric techniques were used to do comparative education research. There is general agreement that functionalist and positivist approaches dominated the field during the 1950s, 1960s and early 1970s, but from the mid-1970s onwards, critical approaches began to challenge the dominant positivist and functionalist paradigms (Ninnes & Burnett, 2003).

The 1980s saw the emergence of what Paulston (1994, p.926) calls "a more humanistic Marxism, or radical humanism", which was

accompanied by the rise of interpretive, ethno-methodological and interactionist approaches. Paulston notes that during the late 1980s and early 1990s postmodern and post-structural texts began to appear in comparative education. Rust (1991) argued that postmodernism should be a central concept in comparative education discourse because the 1990s represented a substantively new era possessing new formal features of culture, a new type of social life, and a new economic order.

Entering the 21st century, comparative educationalists began to reflect on the mission and role of comparative education (Gu, 2003; Suzuki, 2002). As Gu observed, comparative education had fallen into a crisis of identity due to being desolated in the last quarter century. According to his views, the cause of this crisis of identity was rooted in the belittling of the importance of educational borrowing (Gu, 2002). Bray (2003) attached importance to comparative education in the global age by analyzing its development, mission and role. He indicated that like other academic field of studies, comparative education has been linked closely with globalization, and encouraged comparative educationalists to look outward with an international perspective. He also noted that the force of globalization brought comparative education both opportunities and challenges that might result in its revitalization as an area of study (Bray, 2003).

The issue of ESD came to enter into comparative education from 2002 when the UN-DESD was officially announced. Since then, much groundwork has been laid for ESD worldwide. Recent changes to in-service learning, a focus on literacy and skills, standards that support interdisciplinary thinking, and the role of systems thinking have all increased the visibility of the movement. Various approaches to ESD have encouraged people to understand the complexities of, and synergies between, the issues threatening planetary sustainability and to understand and assess their own values and those of the society in which they live in the context of sustainability. ESD seeks to engage people in negotiating a sustainable future, making decisions and acting on them. While it is generally agreed that ESD must be customized for individual

learners, simultaneously, lots of professional organizations have produced their own standards and lists of best practices, including the North American Association for Environmental Education, which has produced a detailed "Guidelines for Excellence" in educational programming. Some educational institutions that focus on ESD have been set up, such as Cloud Institute for Sustainability Education at Ramapo College; the Centre for Sustainability; Creative Change Educational Solutions; Learning for a Sustainable Future; Green Education Foundation; the Swedish International Centre of Education for Sustainable Development, Stockholm, and others.

From the historical review of comparative education, it is easy to recognize that comparative education has always been concerned with “hot” subjects related to social development, although it functions in various ways at different stages and contexts. It is clear that the value of comparative education lies in putting its pragmatic purposes into practical actions, such as reforming schooling systems, restructuring curricula, improving pedagogy, and so on and so forth. Generally, comparative education tends to play an instrumentalist role for policy-making and educational reform.

ESD as a Contemporary Subject of Comparative Education

Although there has been general agreement that education should be involved in promoting SD since 1992 with “Agenda 21” and the “Rio Declaration”, few substantial efforts had been made in ESD before the UN-DESD, which strives to incorporate key concepts of SD into educational policies and programs of the UN, other international agencies, non-governmental organizations, ministries, community-based organizations, research institutions, the media and the private sector. Relevant research studies focusing on ESD have also emerged. For example, in 2005, the Teachers College journal from Columbia University, USA, in collaboration with the UN University Institute of Advanced Studies, published a special edition entitled *Current Issues in Comparative Education*, mainly with the intention of exploring ways in which ESD has been conceptualized and implemented in various historical and

geographic contexts (Teachers College, 2005). This publication can be considered as a typical model of how comparative education can act as a means for providing a platform for international perspectives on these issues, including an overview of how they are being addressed by academics and practitioners. In doing so, comparative education is effectively changing approaches to sustainability, from education *about* SD to education *for* SD.

Conclusion

In this paper I have argued that comparative education is generally an applied social science, with a mission to serve the various needs of the development of schooling, as well as of human society as a whole. SD has become vital for the future development of human society. This means that comparative education must commit to focusing on SD, and ESD in particular, by promoting country-to-country educational borrowing. Undertaking this challenge will not only benefit comparative education by alleviating the current crisis of the discipline, but also will also benefit education in its function of contributing to human society.

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Assessing the core competency of Infection Control Nurses in Hong Kong: insights from comparative education

Wai Fong CHAN, Bob ADAMSON & Trevor BOND

Introduction

In recent years, infection control has become a major concern in Hong Kong, with the outbreak of the Severe Acute Respiratory Syndrome (SARS) in 2003 and the influenza pandemic in 2009. It was generally acknowledged that the Hong Kong infection control nurses responded in an outstanding way during these crisis situations. In the aftermath, there has been much discussion about how Hong Kong can maintain a high level of infection control practices to cope with future crises.

Infection control applies to routine hospital care as well as epidemic situations. As currently practised, hospital infection control requires a relatively small number of professionals. They work in infection control teams, led by an infection control officer, who is a doctor. The majority of the workforce comprises nurses who are specifically trained in infection control. Their work is not a form of direct patient care service; rather it is concerned with the prevention of infections. It includes establishing practices to prevent and contain infections; monitoring practices to determine which ones spread infections and how; educating healthcare workers about infections and their control; and continuously updating practices and monitoring their effectiveness. The nurses, as the frontline workers in this service, perform a number of critical functions. They collect infection data, analyse it, disseminate results of findings to other healthcare workers and administrators concerned, help devise solutions, and implement improvements. Therefore infection control nurses need a wide range of skills, knowledge and experience, especially in patient care practices and communication, as negotiation and liaison work are crucial to their effectiveness.

Infection control is a young specialism in nursing education. It is now found in most countries in the world, but, in each country, it

was not formally established once an infection crisis occurred. For example, the first infection control nurse was appointed in the United Kingdom in 1959 following the outbreak of Methicillin-resistant *Staphylococcus aureus* (Gardner, Stamp, Bowgen & Moore, 1962). The hospital infection control service of the United States was created for similar reasons in the 1970s (Goldrick, 2005). Also, in Victoria, Australia, their infection control service was established after the emergence of a "super-bug" (Victorian Specialty Interest Group Members, 1982). Hospital infection control was only established widely in public hospitals in Hong Kong after the outbreak of Methicillin-resistant *Staphylococcus aureas* in 1985 (Yung & Seto, 1989).

The cost-effectiveness of an infection control service is apparent in two aspects. First, it reduces healthcare costs to individuals or the healthcare system by reducing the need for treatment, hospital stay and re-admission due to hospital-acquired infection (French & Cheng, 1991; Goldrick, 2005). Second, it reduces indirect costs, such as patient mortality, by reducing and preventing hospital-acquired infection (Correa & Pittet, 2000; French & Cheng, 1991).

However, at present, there is no formal certification programme for infection control nurses in Hong Kong. Although some training is currently offered, a certification programme would ensure patient safety and foster systematic professional development of infection control nurses. The research project described in this report is an attempt to provide a sound basis for certification by identifying the key competencies that are required by infection control nurses in the context of Hong Kong hospitals.

The research had three phases. The first phase involved a literature review and a comparative study of certification programmes for infection control nurses in other countries. This phase provided some orientations for the consultation, in Phase Two, with local infection control practitioners. Using Rasch analysis, a list of competencies that were needed in Hong Kong, and their relative importance, was established. Finally, in Phase Three, infection control experts, including infection control officers and infection

control nurse specialists, were shown the list of competencies and asked to nominate the key competencies which would form the core of the training and assessment for the certification. Involving field practitioners and experts to give input on the professional practices and the related content weights is crucial to ensure the certification is appropriate to the needs of the specific contexts in which the infection control nurses would be working.

Comparative Study of Infection Control Certification

The work of developing the certification programme would be eliminated if a suitable version could be found overseas to be imported "as is" in to Hong Kong. Failing that, a comparative study of such programmes would be informative in highlighting the competencies selected by each system, and how these competencies are assessed. Using the three aspects in the model for comparing curricula presented by Adamson and Morris (2007), the *unit of analysis* was the contents and assessment of different certification programmes; the *purpose* of the comparison was to find out what these were and why; and the *manifestation* was the curriculum documents and assessment papers associated with the certification programmes.

There are only three certification programmes or similar schemes for regulating the specialist practice of infection control in the world. They are the United States of America, Australia and Korea. These countries are developed countries with a comprehensive healthcare system.

United States of America

In the northern hemisphere, the United States of America is one of the leading countries in the field of infection control practice. Its certification in infection control is organized by Certification Board of Infection Control and Epidemiology (CBIC), an independent organization (Miller & Boyle, 2008). The organization has been accredited by the National Commission for Certifying Agencies since 1995 (Docken & Sanders, 1999).

The certification examination of Certification Board of Infection Control and Epidemiology, Inc. (CBIC certification examination) is designed for practising infection control practitioners. Since 2009, infection control practitioners who meet the requirements on both education and practice are eligible to take the certification examination (CBIC, 2011). Candidates are required to be currently practising infection control. Candidates who have not passed the certification or lapsed certificants fall in the category of initial certification. For the initial certification, one should have a minimum of either a baccalaureate degree or the current license or registration of a medical technologist, clinical laboratory scientist, physician or registered nurse. A person who only satisfies the practice requirement may apply for a waiver of the educational requirements (CBIC, 2011).

The examination is developed based on the practice analysis survey on infection control (Goldrick, 2007). To ensure the examination content is in line with the evolution of practice, the examination content is revised based on periodic practice analyses. The latest practice analysis was completed in 2010 (CBIC, 2011). The examination is conducted in a computerized format in selected centres in the United States and Canada (Pirwitz, 1995). The examination consists of 150 multiple choice questions (CBIC, 2011). However, only 135 questions are used to compute the scores. The questions that are too easy or too difficult will be rewritten or disregarded (Pirwitz, 1995). To ensure all the tests are at the same level of difficulty, some questions that are relatively more difficult are reused in subsequent tests.

As required by the National Commission of Certifying Agencies, a certification programme must have a recertification process (Pirwitz, 1995). The CBIC certification is valid for five years. The recertification examination is in a web-based format called the Self Achievement Recertification Examination (SARE). The SARE also contains 150 multiple choice questions (CBIC, 2011). The questions focus on the most current advanced infection control practices. As other objectives for SARE are proposed based on the dynamic infection prevention and control strategies, the questions of SARE

are more difficult because the CBIC believes that these recertifying candidates have at least five years more experience than the candidates who take the initial examination.

As the custodian of a well-developed certification examination for infection control practitioners, the CBIC has expanded its credentialing boundaries beyond North America. Through the network of Applied Measurement Professionals, Inc., international test centres have been set up all round the world, including Asia (including Hong Kong), Europe and Africa (Memish, Soule & Cunningham, 2007).

Australia

In the southern hemisphere, Australia is the leading country in infection control practice. Its certification in infection control is called the "Infection Control Professional Credential" organized by the Australian Infection Control Association (AICA), which is a member of National Nursing Organization (Hunt & Hellsten, 2006). The credential is a self-regulatory process to acknowledge the relevant nurse specialists who have demonstrated the described competency (AICA, 2007). In view of there being no specified qualification and training assessment for practising infection control in Australia (Baird, 2006), the AICA made a pro-active move to initiate this credentialing process in order to:

1) establish a national standard by identifying a group of experts who are the designated specialists or who possess advanced expertise;
2) set up qualifications for independent practice and career development; and
3) enhance the quality of care through informing customers and assisting employers about managing risks. (AICA, 2007)

The AICA credentialing programme was started in December 2000 (Hunt & Hellsten, 2006). (The development process of the credentialing package was not reported.) Because of poor response from members, it was suspended for a few years for further revision. Through extensive consultation, the credentialing package was revised and re-launched in 2006, but uptake has been slow. By

24 March 2011, only 57 infection control professionals have been credentialed (AICA, 2007).

The credentialing process only caters for the members of AICA. The assessment method comprises self-reporting (AICA, 2009a). Applicants may obtain 20 to 90 points based on their highest educational qualification. For example, the lowest educational level, Bachelor of Nursing from a recognized tertiary facility will get 20 points. The highest educational level, PhD in Infection Control or related discipline will get 90 points. For the portfolio submission (25 points), applicants may choose one topic on a specific outbreak situation, on a quality improvement activity or on an infection control policy/ procedure that was developed. In the education project (25 points), a detailed description of an educational programme/ project is needed. Peer review is a mandatory portion (20 points). Applicants are requested to identify a suitable review article and to write up a commentary on their professional management practices and interpersonal skills according to the guidelines. A personal statement/ critical review is needed to discuss the applicant's contribution to infection control (20 points). The conditions include publications, conference presentations/ attendance, membership of professional body, participation in any significant/ relevant education or research endeavours, major projects, awards/ grants received, continuing education or any other activities/ achievements. Lastly, the current curriculum vitae of the applicant is requested (10 points). As a whole, the credential will only be granted to the candidate who gains at least 100 points (AICA, 2009a). The submission is individually assessed by the members of Credentialing Committee of AICA. The AICA Executive makes the final decision on awarding a credential based on the recommendation of Credentialing Committee.

One may apply for re-credentialing at the end of the third year of credentialing (AICA, 2009a). Credentialed infection control professionals whose credential has lapsed for more than six months from expiry are required to complete the whole credential process instead of the re-credentialing process. The re-credentialing process

depends on a self-reporting submission. The content required is less extensive than for initial credentialing (AICA, 2009b).

Korea

Following the revision of its Medical Service Act in 2003, Korea launched a formal infection control nurse specialist graduate programme, which is a master's degree programme. The infection control nurses graduating from the programme are certified through the national qualifying examination, known as the Korean certification examination. Candidates who pass the examination are certified as infection control nurse specialists. The first examination was organized in 2006 and it is now an annual exercise. This examination is supervised by the Korean Accreditation Board of Nursing. The board prepared the job description of the nurse specialist and standard curricula through a series of workshops. The questions were developed from the expertise of infection control nurses, nursing professors and medical professors. The Board of Examination, consisting of infection control experts and nursing professors, is responsible for selecting questions for the examinations (Kim, Jeong & Park, 2010).

The Korean certification examination comprises two components: a written part and practice. The written part contains 150 multiple-choice questions. After passing the written examination, a practical examination conducted in a simulated clinical setting will follow. A pair of nursing professors and infection control nurses with more than 10 years experience in infection control act as the evaluator group. They identify the assessment protocol before the practical test and they assess the candidate together. The test includes one hour of questions about infection control intervention and 10 minutes of skills demonstration, such as hand hygiene and donning of personal protective equipment (Kim et al., 2010). Certificants need to complete 10 hours continuing education each year to maintain their certification (Kim et al., 2010).

Although the Korean infection control nurses are eligible to sit for the certification in infection control organized by the CBIC in the USA, most opt to complete the Korean certification examination

(Kim et al., 2010). Based on information published in 2006, only one infection control professional from South Korea was certified by the CBIC examination (Memish et al., 2007).

Discussion

Certification programmes for regulating infection control practice are available in the United States, Australia and Korea. Each has its own characteristics in terms of content and mode of assessment. Only the US CBIC programme is open to practitioners internationally. Some infection control nurses from Hong Kong took the CBIC certification examination to test their competency level in infection control and one group of local infection control professionals collaborated with CBIC in organizing a certification examination in Hong Kong in 2004. In 2005, this certification examination was formally introduced to Hong Kong through the Infection Control Branch of the Centre for Health Protection, Department of Health. It induced much controversy among local infection control nurses (Chan, 2005). The participants in this certification examination commented that the test was not suitable for infection control practitioners in Hong Kong. Some questions in the CBIC certification examination are not suitable for infection control professionals in other countries because of the unique characteristics of different geographic areas, such as cultural norms, economic realities, the nature of nursing education, disease epidemiology, client needs, resources, healthcare structures and clinical practices (Memish et al., 2007). Locally developed certification programmes are therefore desirable. Also, in an ever changing healthcare environment, certification programme development must be a dynamic process, that is the content for the certification programme must be regularly revised to fit local changing practice.

The research project outlined in this report benefitted from comparative education in studying certification programmes outside of Hong Kong. The comparison helped to shape the list of competencies, and eleven categories of competencies were obtained: surveillance; programme management and evaluation; consultation; evidence-based practice on infection prevention and control;

education; outbreak investigation and control; research and development; team and service management; team work and partnership; qualifications; and continuing education and professional development. The list of competencies was then adjusted through consultation with local practitioners and experts (see Chan, Adamson, Chung & Chow, 2010). The comparative study is also a reminder of the limitations of transferring educational practices (such as assessment) from one setting to another without due consideration of the characteristics of the local context.

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The effects of college environment on students' learning and living experience at a world-class university: a comparative case study of The University of Hong Kong and Shanghai Jiao Tong University

Roy Yew-Hung CHAN

Introduction

In recent decades, China has made a number of rapid changes in the governmental policies and environmental structures to promote the concept of world-class universities (Min, 2004). This idea started when President Jiang Zemin announced at Peking University centennial celebrations the incorporation of a small group of world-class universities in 1998 (Morhram, 2009). Since then, several new projects have been established by the Ministry of Education to accelerate the process of building world-class academic institutions, including a rapid expansion in student enrolments, structural reforms, and policy initiatives (Wang, 2011). These projects include the Project 211, the Project 985, the 2003-2007 Action Plan for Rejuvenating Education, as well as the development of the C9 League. Though governments are pushing hard to build more world-class research institutions in China, a large number of campus facilities and campus resources are still vastly outdated and overcrowded (Hayhoe & Li, 2011).

Generally, the college environment created by faculty members and students impacts the development of an individual experience (Astin, 1993; King & Mayhew, 2002). Salmi (2009) once categorized 'abundance of resources' as one of the three most important elements for building a world-class university environment. The time and energy college students devote to educationally-purposeful activities is the single best predictor of their learning and personal development (Kuh & Kinzie, 2005). While previous studies suggest that quality of research is one of the most viable factors in achieving "world-class" status, few studies have yet to examine how the college environment can be an important element in making world-class research institutions in

China. Students play a salient role in the development of research universities. They explore their campus environment and construct meaningful knowledge acquired through their virtual environment and resources (Cronin, 1997). Hence, by creating a rich college environment that aligns with student expectations, Chinese universities can provide learners with positive learning and living experiences to be mentally active and participative in their academic study (Pascarella, 1985).

China's Higher Education

Over the last few decades, a large number of studies on China's higher education have focused on the need for creating new programs, fostering international collaborations, and recruiting international world-class scholars to help better prepare universities for the many challenges of globalization, diversification, and massification in Chinese universities (Yang & Welch, 2011). A few studies have also stressed the need to improve campus facilities, to update physical infrastructures and to create an atmosphere of intellectual excitement to strengthen China's internationalization for a modern higher education sector (Altbach, 2004). Although significant progress has been made to improve the intellectual culture and environment for college students in China, little research to date has examined how these rapid changes have helped the country to create a suitable environment when developing world-class institutions and nurturing students (Yang & Chau, 2011).

Building world-class universities

One of China's most deep-rooted values is the belief in higher education as a major instrument for achieving the highest good for both individuals and society (Li, 2011: 60). President Hu Jintao recently pledged to turn China's higher education institution into a "Research Superpower" country by the year 2020. He suggested that building world-class universities has been the dream of Chinese generations not only for pride, but also for the future of China (Cremonini, 2011). According to Min (2004), the Ministry of Education plans that China will seek no fewer than ten universities to reach "world-class" status, with top priority going to Peking

University and Tsinghua University. These universities will not only help the country to raise their level of expectations but also help guide administrators and policymakers to reprogram and restructure university curricula in order to foster more international talents to study and work within mainland China (Tai, 2006). But do all universities need to become "world-class"? And how many world-class universities should there be globally?

The paradox of what constitutes a world-class university has been largely vaguely defined overtime. Marginson (2011) identifies a 'world-class university' as an aspirational concept. He views the notion as a Global Research University (Ma, 2008; Marginson, 2008). Like Marginson, Altbach (2004) identifies 'world-class university' as a catch phrase: "Everyone wants one, no one knows what it is, and no one knows how to get one" (p. 11). Chinese Premier Wen Jiabao once reportedly said that "a great university is to have its own unique soul, with independent thinking and freedom of expression" (Cao, 2010). Moreover, Levin & Jeong (2006) suggested that great universities, such as, Harvard, Princeton and Yale, typically excel in three major functions: (1) education of their students; (2) research, development and dissemination of knowledge; and (3) activities contributing to the cultural, scientific, and civic life of society (p. 16). These significant features allow research universities to attract more world-class talents to further enhance the institutional prestige in developing countries.

Methodology

This comparative research project utilized cross-sectional data to analyze and compare the effects of college environment on students' learning and living experiences at The University of Hong Kong (HKU) and Shanghai Jiao Tong University (SJTU). To further understand how the college environment affects the making of world-class institutions in Hong Kong and Mainland China, the "2010 Student Satisfaction Survey" from the Centre for Research into Quality at Birmingham City University (BCU) was administered at both HKU and SJTU. These two institutions were primary selected because both HKU and SJTU aspire to become world-class universities. Both are current members of the elite

international network *Universitas 21* and are currently ranked between 201-300 on the 2011-212 Academic Ranking of World Universities (ARWU) by the Shanghai Jiao Tong University.

The BCU "2010 Student Satisfaction Survey" measures students' learning and living experience, and their perceptions of the college environment. A total of 60 students (30 students from HKU and 30 students from SJTU) were randomly selected from various departments and schools. The survey was conducted from March 2011 to July 2011. Because of limited funding, only a small number of random samples were collected. All questionnaires, which were administered in English, were completed face-to-face in approximately 30 to 60 minutes. The ultimate goal of the survey is to help Chinese researchers and policymakers to better understand how the college environment (academic, campus, and interpersonal) impacts students' learning and living experience, as well as how students' overall university experience affects China's progress to build world-class universities by the year 2020.

Demographic information

The demographic information of the survey is presented in Table 1 (HKU) and Table 2 (SJTU).

The survey consisted of about 30 multiple choice questions. The college environmental variables consisted of three factors: academic, campus, and interpersonal. All numeric data have been weighted to the next decimal points.

The summary of the variables, descriptions of the variables and the measures of the variables in the study are presented in Table 3.

Table 1: Age and Gender of Respondents – HKU

Gender		Age 18-19	20-21	22-23	24 or older	Total #	%
Male	#	2	1	3	4	10	33
	%	7	3	10	13		
Female	#	1	1	4	14	20	67
	%	3	3	13	47		
Total	#	3	2	7	18	30	-
	%	10	7	23	60	-	100

Note. Age and gender data is self-reported by each student subject who chose to respond to the demographic questions

Table 2: Age and Gender of Respondents – SJTU

Gender		Age 18-19	20-21	22-23	24 or older	Total #	%
Male	#	7	6	2	3	18	60
	%	23	20	7	10		
Female	#	5	4	1	2	12	40
	%	17	13	3	7		
Total	#	12	10	3	5	30	-
	%	40	33	10	17	-	100

Note. Age and gender data is self-reported by each student subject who chose to respond to the demographic questions

Table 3: Summary of Variables and Descriptions in the Study - HKU and SJTU

Variables	Descriptions	Measure Scales
College Environment		
Academic	Level of studying and interaction (e.g., participate in class) (This variable is composed of 7 questions)	0 =Never 1= Seldom 2=Occasionally 3=Often 4=Very often
	Level of classroom experience (e.g., trouble listening in class) (This variable is composed of 5 questions)	0 =Never 1= Seldom 2=Occasionally 3=Often 4=Very often
Campus	Satisfaction with campus facilities and campus services (e.g., computers, library) (This variable is composed of 5 questions)	0 = Very dissatisfied 1= Dissatisfied 2= Neutral 3= Satisfied 4= Very satisfied
	Use of campus resources (e.g., computers, library) (This variable is composed of 5 questions)	0 = Never 1= Once a month 2= Once a week 3= 2-6 times a week 4= Every day
	Activity level of residence hall	0 =Never / Rarely 1= Occasionally 2=Very often
Interpersonal	Number of research conversation on-campus, off-campus, and e-mail	Numerical
	Number of faculty-student interactions on-campus	Numerical
	Number of faculty-student interactions off-campus	Numerical

Table 3: Summary of Variables and Descriptions in the Study - HKU and SJTU (continued)

Students' Learning & Living Experience	Level of self-skills developed (e.g., leadership, interpersonal) (This variable is composed of 7 questions)	0 =None 1= Very little 2=Some 3=Much 4=Very much
	Level of future development (e.g., training for job) (This variable is composed of 4 questions)	0 =None 1= Very little 2=Some 3=Much 4=Very much
	Overall level of student involvement (academic and social)	1= Agree 2=Disagree 3=N/A
	Overall satisfaction of college environment (academic, campus, interpersonal)	1= Agree 2=Disagree 3=N/A

It is important to note that the measure scales in this study were not modified and came directly from the BCU survey. A few questions had been adjusted to ensure that the questionnaire meets the research aims of the study. The two surveys were later combined to form the "2011 HKU/SJTU Student Experience Survey." Because of the large amount of questions administered, only a brief summary of the data is presented later in the discussion section.

Discussion

From this data, the BCU "Student Satisfaction Survey" indicates that there were significant differences among students' learning and living experience patterns for Chinese students attending either Hong Kong or Shanghai. There were two common themes that has emerged in this section based on the findings: a) college environment (academic, campus, and interpersonal) affects students' learning and living experience, and b) students' learning

and living experience affect China's progress of building world-class research universities.

Firstly, the survey suggests that the college environment variables (academic, campus, and interpersonal) exert a compelling effect on students' learning and living experience at both HKU and SJTU. Specifically, the college campus environments (campus facilities, campus resources and campus services) showed the largest impact towards students' learning and living experience, while the college interpersonal environment (faculty-student relationship) came in second following with the college academic environment (curriculum, degree program) as the third most viable impact on college students' learning and living experience. One drastic difference noted from the survey was the student canteen, of which more than 50 percent of SJTU students were dissatisfied compared to only 17 percent at HKU. In addition, there was a significant difference regarding the usage of career services on-campus, as about 80 percent of SJTU students had never used the career services compared to only 40 percent at HKU. This data may suggest that a majority of SJTU students were either unaware that such a service existed for them on-campus or it was completely inaccessible.

Despite those differences, the usage level of the campus facilities and campus services between the two universities were very similar in many ways. One interesting aspect to note was that 90 percent of SJTU students had lived on-campus at some time during their academic studies compared to only 47 percent at HKU. However, the survey suggested that students at HKU were slightly more active in their residence life compared to students at SJTU.

Aside from the college campus environments, the survey portrays that students at HKU achieved slightly more during their university experience compared to students at SJTU. A few areas that HKU received higher percentages were the amount of materials students had learned in class as well as the amount of preparation a student had devoted for future qualifications after completion of the program. However, SJTU students earned

slightly higher percentages on improving job prospects after their university studies as well as their ability to perform for a specific job or profession within their academic field of study.

Overall, the survey suggested that students at STJU were slightly more satisfied with their college campus environment (facilities, services and resources) than students at HKU. This result may be due to the fact that the SJTU – Minhang Campus had twice the amount of modern facilities and infrastructures compared to the HKU Main Campus. While there are many other differences among environmental patterns for students attending either HKU or SJTU, the survey clearly demonstrate that Chinese students' perception of their college environment plays a salient effect on their overall learning and living experience. In other words, Chinese students' interaction and integration with faculty members, administrators, and other college students' all play key roles in delivering the highest quality of instruction, curriculum, and student life on-campus. In respect of Levin and Jeong (2006) three major functions of world class universities cited above, Chinese senior officials and policymakers must place more emphasis on creating a first-class environment and experience for students in China if the research universities are to achieve "world-class" status.

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Progressive school teaching in China?

Gerard GUTHRIE

In a recent book, I posited the Progressive Education Fallacy. This Fallacy is based on the proposition that, among other labels, 'constructivist' teaching methods are necessary in primary and secondary schools in developing countries to develop enquiry skills. One result is on-going efforts to change teachers away from formalistic classroom methods on an assumption little researched cross-culturally that progressive teaching styles will help students learn enquiry skills. However,

> there is no necessary indication that enquiry intellectual skills must be introduced in primary and secondary schools in revelatory cultures where knowledge is there to be revealed rather than created; nor that changing teaching styles is a necessary precondition (Guthrie 2011, p.2).

Traditional formalistic teaching is appropriate in many cultures where epistemology is revelatory rather than scientific. In particular, a millennia-old history of formalistic teacher-centred pedagogy makes unlikely the adoption in China of recent Western models for progressive student-centred classrooms (Guthrie 2011, pp.173-193).

The Confucian education tradition is one of the better researched examples of the success of formalistic teaching. What Biggs (1996) labelled the Paradox of the Chinese Learner highlighted that the sort of classrooms commonly considered in Western progressive thinking to be required for good learning were rarely observable in Confucian-heritage schools. Learners from Confucian-heritage countries consistently scored towards the top in IEA studies, even though classrooms generally had over 40 students, appeared highly authoritarian to Western observers, had

formalistic teaching methods aimed at stressful low-level examinations, and were funded poorly. Nonetheless, a 2001 curriculum policy introduced some progressive elements in China (Zhu 2007). Indeed, Chan and Rao (2009, pp.12-22, 326-330) have claimed that changes to educational systems in China and Hong Kong (decentralisation, school-based development, redefinition of educational goals, and emphasis on life-long learning) represent a paradigm shift from knowledge transmission to knowledge construction. Chan (2009) called this "transforming pedagogy" by drawing on constructivist and problem-based learning. However, classroom research in China since 2001 has found a stable and widespread pattern of formalistic teaching and in-service teacher education (INSET) in primary and secondary schools. Policy is apparently not fundamentally changing classroom behaviour.

This article will briefly summarise the educational context generated by the ancient Confucian educational paradigm that still pervades modern classrooms in China. Relevant research findings on classroom teaching will be reviewed from the English language literature since 2001. A critical distinction between formalistic and progressive teaching styles will come from types of classroom questions: "The formalist will use closed questions to check student recall, whereas the progressive teacher will tend to ask open questions designed to promote student understanding" (Guthrie 2011, pp.206-207). One hope is that this review will stimulate those more linguistically competent than I to search Chinese-language research and to conduct further field research on these themes.

Confucian Educational Philosophy

Confucian epistemology has always been based on revelation and transmission of ancient wisdoms about social relations and the moral authority of good leaders (Needham 1956, pp.3-32; Guo 2006, pp.38-46). In contrast, Confucian contributions to science were almost entirely negative, according to Needham (1956, p.1). The basis of Chinese scientific tradition lay with Taoists, who

developed technology in a pragmatic and atheoretical fashion, but the type of formal scientific epistemology that arose in Europe in the 17th century AD did not occur in China (Needham 1956, pp.33-164; Wilkinson 1997; Guo 2006, pp.132-141). Chinese epistemology has remained revelatory and thus inconsistent with the Western scientific epistemology that underlies progressive English-language educational philosophies (Guthrie 2011, pp.174-176, 244-246). The Confucian paradigm of revelatory epistemology and formalistic pedagogy still permeates Chinese education (Guo 2006, pp.7-8; Keay 2008, pp.3-4). One example is a "back to tradition" movement that has built on concern for moral and ethical education since the late 1980s, beginning at the grass roots, and implicitly teaching Confucian-based virtues. The movement spread to 3,000 schools and one million students within four years, gained governmental support in 1994 in the name of "Chinese traditional virtues", and was still strong over a decade later (Yu 2008). The moral concern was also demonstrated by Guo (2006, pp.578-590), who particularly emphasised following truth and respecting ethics, the cultivation of sound character, benevolence towards others, and trustworthiness.

While Confucian philosophy about human relations reinforced respect for the teacher as the transmitter of traditional wisdom, Confucian teaching methods did evolve over time (Gu 2001, pp.189-194). Confucius (*Kong Qiu*) himself used active non-formal educational methods based on the teacher setting the example in developing the moral and intellectual qualities that should distinguish gentlemen scholars (Guo 2006, pp.25-38, 48-75). Some recent educational literature suggests that his approach provides support for progressive school teaching in modern times. However, the predominant impression is that Confucius mainly taught older students, not younger children, and that his views on teaching therefore applied not to lower-level schooling but to the then equivalent of university and adult education.

Development of Confucian teaching during the 3rd century BC by

Mencius (*Mengzi*) stressed that the school teachers' role was to present ethical rules rather than develop critical thinking (Guo 2006, pp.94-109). Within a few centuries, formalistic pedagogy became the school norm. While the key *Records of Learning* did guide teachers to elicit learning (Guo 2006, pp.153-168), the outcome was a formalistic paradigm that predominates in modern times and differs markedly from progressive Western constructs. The Confucian perspective emphasises benevolence and ethical behaviour. The intelligent person studies hard, enjoys learning and persists in lifelong learning, based on conceptions of intelligence that include nonverbal reasoning ability, verbal reasoning ability, and memorisation (Ginsberg et al. 2004, p.99). Memorisation, however, means more than mere rote learning without thought to meaning. In this context, memorisation is not an end in itself, but is a vital repetitive step preceding understanding by ensuring accurate recall (Lee 1996, pp.35-36; Biggs 1996, p.54), and is thus a building block for the later development of higher order intellectual skills (Guthrie 2011, pp.222-224, 246-249). In everyday culture, the influence of Confucian thought today is found in 'Vernacular Confucianism'. Common beliefs about the nature of teaching and learning that are held in Chinese culture by teachers, parents and students include that praise spoils children, scolding builds character, failure results from laziness rather than lack of ability, and learning requires painful effort (Chang 2000; Salili 2001). Respect and obedience to teachers is typical, while questioning them can be considered disrespectful. Teachers should appear stern, especially with new classes, seldom praise and provide only limited feedback. This formalistic teaching style differs from Confucius' own approach to higher education; rather it is consistent with Mencian and Neo-Confucian approaches to lower-level schooling.

Recent Classroom Studies in China

Biggs (1996, pp.50-54) put the Paradox of the Chinese Learner in the Dunkin and Biddle (1974) framework of student presage, teaching presage, process and product factors operating in

interaction in an open system tending towards equilibrium. Biggs observed that Western progressive confusion over Confucian formalistic pedagogy came from too narrow a focus on the components of classroom learning and not understanding that high quality outcomes could emerge from poor conditions. Rather, the systems theory perspective meant that classroom teaching should be understood in terms of its own system, not an exotic one. Several researchers have since investigated Confucian-heritage learning from this perspective, notably in papers in two volumes edited by Watkins and Biggs (1996; 2001) and revisited in Chan and Rao (2009, see their overview and update at pp.3-32).

The rest of this discussion focusses on classroom research findings from mainland China, where considerable educational reform has occurred since 1978 as part of the modernisation and internationalisation of the Chinese economy (Hayhoe 2001, pp.20-23; Rao et al. 2009, pp.216-219). A major expansion of a very large and increasingly well-funded school system provides for nine years of compulsory schooling. In 2001, highly centralised, top-down nationwide curriculum reforms were introduced, including a more student-focussed policy for teaching and learning (Zhu 2007). Policy moved away from single national subject textbooks, and emphasised discovery and cooperative learning to lay a foundation for lifelong learning. Twenty-two new primary and 16 senior middle school subject syllabuses focussed on student competencies with practical applications and attempted to move away from domination of examinations. The curriculum approach encouraged more active student involvement in lessons, however, studies have predominantly shown that this aspect of the policy has not been implemented in classroom practice much beyond apparently increased attention to closed questioning to check student engagement in lessons.

Ma et al. (2004) compared mathematics teaching in two urban and two rural primary schools in Jilin for over one month in each. Observation and interviews showed that teachers structured their formalistic lessons consistently. In 40-minute lessons, teachers on

average spent about 15 minutes questioning students from the front of the class, commonly using a closed question/answer format for checking understanding. Students seldom initiated questions. A further ethnographic report by Ma et al. (2006) found similarly that mathematics teachers in two primary schools in Jilin closely followed the new primary mathematics syllabus, but had not taken effective steps to adapt it to students' individual differences, particularly because of the examination culture. Another study of mathematics teaching by Rao et al. (2009) was of grades 3 and 5 in six urban, semi-rural and rural schools in Zhejiang. Despite average class sizes of 48, videotape showed well-disciplined children who were very engaged in the learning process. Teachers did not have to manage disruptive behaviour, children were seldom criticised, and the classroom atmosphere was very pleasant. Lesson structures were very similar across all schools and both grades. Whole-class teaching was used for the majority of lesson time. Teachers typically introduced a new topic, then generally questioned students about it, assigned class work, and finally summarised the lesson. Consistent with the new curriculum, questioning was used to ensure student attention, but the teachers generally used short closed questions and students never asked questions. Lower student achievement occurred in rural schools, but teaching styles were similar. Fan et al. (2004) contains several other studies on formalistic mathematics classrooms.

Halstead and Zhu (2010) drew a useful distinction between a central goal of Western progressive education (the "personal autonomy" of the individual as a self-actualised decision maker) and the emphasis in recent educational reforms in China on the more limited "learner autonomy" (which applies to individuals taking more responsibility for their own learning, balanced by a recognition of interdependence and collectivism). Their ethnographic research provided a snapshot from observation of 12 lessons in a senior high school English class in Beijing and semi-structured interviews with the teacher and 10 randomly selected students. Even limited learner autonomy was hardly a reality in the classroom. The teacher and students reflected

curriculum policy in expressing a desire for student autonomy and management of class activities for which the students had responsibility, but there was very limited implementation in practice. The teacher found her hands tied both by her own tendency to dominate the learning process (in accordance with traditional Chinese expectations of a teacher) and by examination requirements.

Apparently more positive evidence in support of the curriculum reforms came from a 2004 Gansu study reported by Sergent (2009). Questionnaires from 961 children in 137 rural schools showed perceptions that reform teachers lectured less, praised more, and placed greater emphasis on the development of students' self-expression and thinking abilities than teachers using traditional methods. Additionally, a mixed method survey in 15 rural primary schools used qualitative classroom observation in 20 Chinese and 10 mathematics lessons, and interviews with the teachers. In schools that had not begun implementation, teachers stated that they did not know much about the reforms. Where implementation had begun with new materials and INSET, interview data suggested that the reforms figured heavily in lesson planning and pedagogy, with a greater stated emphasis on student self-expression, greater valuing of student contributions, and opportunity for students to contribute. Classroom observation found that the environment in classrooms following the new curriculum was more relaxed, with more praise and encouragement by the teachers. The evidence was claimed to suggest that the reforms were generating methods that were more progressive. However, the claim that more open-ended questions were in use was not supported by quantitative data and some important qualifications are needed about the methodology. Questionnaires and interviews are not valid for reporting classroom behaviour, and mismatches between stated perceptions and actual classroom behaviour is not uncommon when official curriculum reforms are evaluated (Guthrie 2011, pp.90-92). Classroom observation in each school took place on one day only and was based on high inference judgements by the researcher

rather than structured observation schedules or long-term ethnography. Additionally, study classes were chosen non-randomly by head teachers, who were unlikely to have selected ones unsuccessfully implementing the reforms.

All these classroom findings are framed by an institutionalised group culture in which formalistic teaching is a highly developed professional form. Cortazzi and Jin (2001, pp.121-125) reported that the school system provided incentives for teachers to learn from each other, act as mentors, and model practices within a school-teacher culture of collective support. According to Tsui and Wong (2009), use of schools as the prime site for teacher development derived from a Soviet pedagogic model adopted in the 1950's. Formal qualifications in teacher education from normal universities were a beginning; after graduation much INSET occurred as daily practice within schools. Standard approaches included "lesson research" (which included collective lesson preparation, lesson observation and post-observation conferencing), demonstration lessons, and one-on-one mentoring. Their own case study used interviews with participants in a Shanghai programme that was recognised as an outstanding success and modelled elsewhere in China. In a number of schools, teacher professional development was organised systematically, including subject groups working on collective lesson preparation. The approach to INSET was based on an apprenticeship model that initially gave light loads to inexperienced teachers. They were assigned mentors, whom they observed and who provided feedback on subject knowledge and instructional strategies from classroom observation. Collective lesson preparation was used to develop 'virtuoso lessons' (Paine 1990) that were carefully planned, critiqued, refined into a standard piece, and rehearsed and repeated – perhaps for decades with standard material. Teaching demonstrations (also held at district, province and national levels) were open to critique from large audiences. The key proponent of this programme was guided by Confucian thinking on the integration of teaching, learning and doing, within which any Western influences were applied (Tsui & Wong 2009, pp.290-304).

Mok (2006) reported a case study of 15 videotaped lessons from a mathematics classroom in Shanghai that was influenced by this INSET programme. The lessons had 67% of time on whole-class instruction, 22% on individual work and 11% on small group or pair work. The teacher was pedagogical. Whole-class instruction included frequent questions to the students (although hardly any instances of student-initiated questions), and with some attention to variation within lessons. The consistently attentive students valued learning of content, but did actively reflect on what was happening in the lessons. Based on this, Mok argued the somewhat convoluted notion that a teacher-dominated lesson may actually be interpreted as an alternative form of student-centredness. Perhaps it is more straightforward to suggest that one implication of this type of INSET is that formalistic teachers' objective behaviour may not be very student-centred in the classroom, but their subjective thought may nonetheless consider deeply student learning needs during lesson planning.

Thus, recent classroom research has found an apparently stable and widespread approach to classroom teaching and teacher development in mainland China. The overall effect of the field studies is to show that the heritage of formalistic Confucian pedagogy continues to dominate in classrooms. The state lays down syllabuses, textbooks and teacher training requirements, with the school system having much in common across the whole country. Since the start of this century, policy had been for teachers to pay more attention to student learning. Given centralised control and some effective INSET strategies, these policies appear in principle to have been implemented quickly, especially during lesson planning. However, the studies summarised here found predominantly that teachers directed more closed (rather than open) questions to students during the predominant whole-class lessons. Such questions appear to be used as a device to check student attention and recall, rather than to encourage their own constructions of knowledge. The effect of the policy in practice has been to upgrade the level of formalism rather than to adopt a progressive teaching style.

Many areas remain for further classroom research. The studies reported in the international English-language literature are quite limited in volume and scope. The findings about classroom questioning are consistent thus far, but they reflect limited samples and non-random access to classrooms. Much scope exists for review of Chinese-language classroom research, and to broaden the subject and geographical range of research. Findings predominantly come from mathematics classes and from urban and coastal areas, and further observational research may indicate more variation in practice than is apparent so far. Guthrie (2011, pp.90-96, 211-213) considers other methodological issues associated with such research. Especially, researchers need to be aware that questionnaires lack validity for reporting on classroom behaviour, which requires direct classroom observation. Lack of consistency between stated perceptions and actual classroom behaviour is often found when official curriculum reforms are being evaluated in societies where scientific values about truth are less important than authority and social status. Perhaps for similar reasons, many papers published in China advocate for the curriculum reforms, but do not present research on classroom impacts in schools (see examples at <www.en.cnki.com.cn>).

A further caution about the recent literature is that much of the valuable research into Confucian-heritage education is based on studies in Hong Kong, not mainland China. Within Hong Kong classrooms, progressive influences have often come from Western educated teachers and educators (Salili 2001, p.78). Perhaps this explains the apparent cognitive dissonance from the contradiction between the Confucian heritage emphasising the importance of learning revealed truths and Western scientific epistemologies emphasising the importance of individual discovery. The Chinese educationalist, Gu Mingyuan (2001, pp.105-110; see also Wu 2009), sensibly argued that a country with strong educational traditions, such as China, must aim both to preserve cultural identity and to modernise. For Gu, modernisation did not mean westernisation as such. Rather, indigenous cultural traditions must change and develop, and the assimilation of foreign cultural

elements should be based on considered choices. The effect is that working to improve traditional formalistic teaching is a more constructive path than working against it by attempting (and apparently failing) to introduce progressive teaching practices derived from a Western culture that differs markedly from the Confucian heritage.

Conclusion

The educational psychologist, John Biggs, using systems theory as a conceptual framework, reached a similar end point about the importance of context as have comparative educationalists influenced by anthropology and sociology (Guthrie 2011, pp.5-9, 13-15). Despite progressive advocacy, research in Chinese classrooms is consistent with the view that teaching in primary and secondary schools there remains primarily formalistic, including with some very effective institutionalised procedures for teacher development. Several studies have found teachers increasing their questioning of students, but usually with closed rather than open questions. It is a stretch too far to claim that classroom practice now demonstrates large-scale adoption of constructivist techniques. The evidence is of an improvement in the level of formalism during the last ten years, not of a fundamental change in teaching styles.

In such a context, formalism is not an intermediary step on the path to progressive educational development, but is likely to remain central to the school system because it is compatible with traditional and on-going cultural practices. Chinese formalism is symptomatic of age-old cultural preferences, not a problematic obstruction to modernisation. As Biggs pointed out, formalism can lead to high academic outcomes in modern times. Formalistic teaching need not be regarded as a classroom problem readily fixed, but is a deep-rooted cultural behaviour capable of improvement and of continuing to play an important role long into the future. Ten years of mild policy change do not seem to carry the potential or the need to alter dramatically well over 2000 years of formalistic Confucian tradition.

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Identifying diversity in large scale comparative assessment: implications for comparative citizenship education research

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Large scale assessment of student performance is now a regular feature of the international education landscape. The focus has been on traditional areas such as Mathematics and Science through programmes such as the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS). These kinds of assessments have become important policy measures for the different countries often leading to significant changes in curriculum and even pedagogy (Ringarp & Rothland, 2010). Rutkowski and Engel (2010) have categorized such assessments as 'hard' measures because they provide governments with the opportunity to realign their education systems as part of the process of seeking 'world class status'.

Yet the ascendancy of large scale assessments has not gone unquestioned. Hopmann (2008), for example, has argued that such assessments (and he uses PISA as an example) do not consider diversity and contexts that might account for the results. Rutowski and Rutowski (2010) do not question the function and purpose of large scale assessments but suggest ways in which they might be improved. Yet these kinds of critiques do not address fundamental measurement issues related to these assessments. Hopmann's critique is ideological and Rutowski and Rutowski's is technical. A basic problem is that each approach accepts the original analyses found in reports from PISA (OECD, 2005), TIMMS (Mullis et al., 2005), and the International Civic and Citizenship Education Study (ICCS; Schulz et al., 2010). This paper, on the other hand, will offer a critique of large scale assessment by exploring alternative analytical techniques that throw a different light on the results. The benefit of such an approach is that it can take on a comparative perspective looking both within and across societies Based on secondary data analysis, it has the potential to inform not only new

understanding of the original results but also new theoretical perspectives as well (see, for example, Kennedy, Hahn, & Lee, 2008).

Specifically, this paper will draw on the data from ICCS to show how an understanding of students' political trust towards can be enhanced using alternative analytic techniques. The focus will be on identifying heterogeneity in the data rather than assuming that a single score can capture the diversity of students' responses. Willse (2011) has pointed out that unobserved heterogeneity–that is heterogeneity that cannot be identified prior to the analysis–may provide additional multiple classes or groups with unique qualitatively different characteristics. Left unanalyzed, such heterogeneity in the results may lead to severe distortions and any implications drawn would be misleading.

The ICCS Study and the Political Trust Scale

The International Civic and Citizenship Education Study (ICCS) was a large scale assessment project carried out by the International Association for the Evaluation of Educational Achievement (IEA) in the years 2008-2009 in 38 educational systems (Schulz et al., 2010). As a part of the study, students responded to a questionnaire with 4 Content Domains: *Civic society and systems*, *Civic principles*, *Civic participation*, and *Civic identities* (Schulz et al., 2008). In this study, analyses and discussion will focus on the students' "trust in civic institutions", which reflects mainly to Content Domain 1 (civic society and systems). There were a total of 11 core items (with three additional items on European institutions and state/provincial institutions) for participating European countries in the ICCS questionnaire.

Out of these 11 items, six items formed a scale of "Political Trust Scale". Students were asked with a 4-point Likert scale on six items, namely national government, local government, courts of justice, the police, political parties, and national parliament, how much they trust each of these institutions, from "not at all" to "completely". The importance of developing political trust—especially in a society's institutions—has recently been

reviewed by Kennedy, Mok & Wong (in press) with a special emphasis on the important role schools can play in this process. In this paper discussion will focus on how the students in England performed on these six items. Both theoretical and measurement issues related to this scale will be discussed in more detail in the following paragraphs.

Measurement issues for comparative purposes and their relation to heterogeneity

Traditional approach to analysis of large scale assessment data

Traditionally, country-by-country comparisons are often the focus of large scale assessments. They result in the international ranking of countries and such rankings are often referred to as 'league tables'. This approach emphasizes uniformity of students' characteristics within a single country as well as across countries. In ICCS 2009, for example, the participating countries were ranked in a league table by each county's students' level of trust in civic institutions (Schulz et al., 2010, p. 106). A country where students had a high level of trust in civic institutions was ranked higher than a country where of students showed lower levels of trust. There are at least two assumptions behind this ranking process:

1) All students in a country have the same conception of trust towards the civic institutions irrespective to the country in which they live; and

2) All students within the whole sample use the rating scales in the questionnaire more or less the same, so that their performance can be reasonably summarized by a particular single scale/ sample means scores to represent the country's performance.

Traditional analyses, therefore, produce single scale scores representing the level of students' political trust in civic institutions (using classical test theory or item response theory) to represent and compare one feature of students' attitudes towards citizenship. These single scale scores are then ranked in order to compare the achievement of students across countries.

Heterogeneity: observed and unobserved

In the production of single scale scores to represent students' achievements or attitudes it is recognized that certain individuals or groups may respond in particular ways. For example, gender, socioeconomic status, immigrant status, language proficiency, etc. may affect students' responses to questions. There are analytical techniques such as differential item functioning (DIF) in Rasch analysis to detect these influences and account for them. Multiple regression analysis can also detect the relationship between particular groups and specified outcomes measures. Schulz et al. (2010) have provided many examples of the latter. In statistical terms these kinds of groups are often referred to as 'manifest' groups where the observable difference can be specified or at least anticipated in advance. Where such differences are shown to exist they can be referred to as observable differences and they can be regarded as *observed heterogeneity* in the data.

Recent research in statistical modeling, however, has suggested that identifying heterogeneity on the basis of manifest or observable groups may ignore the possibility that there may be other forms of heterogeneity within a population (Wang, & Hanges, 2011). Such heterogeneity, if it exists, might not be related to the observed characteristics of groups (gender, SES, immigrant status, etc.) but could be the result of distinctive characteristics within particular samples. The assumption of such an approach is that heterogeneity, or lack of it, cannot be assumed–rather it needs to be identified empirically. In the end this kind of heterogeneity, often called *unobserved heterogeneity,* might be linked with some manifest groups but this might not always be the case. There may be groups that cannot be identified *a priori* but that emerge from the data. These *unobserved* groups may be very important to identify particularly if they represent a sizable proportion of the sample whose characteristics suggest there is considerable divergence from what might be expected when only a single scale score is reported for the entire sample.

To understand the data more fully, therefore, both observed heterogeneity and unobserved heterogeneity should be identified.

To investigate the latter within a population, 'mixture modeling' has been applied in various disciplines, such as education, marketing, personality psychology research (see, for example, Austin, Deary, & Egan, 2006; De Jong, Steenkamp, & Fox, 2007; Willse, 2011). Mixture modeling combines latent variable modeling (item response theory modeling) and latent class modeling, where both the latent variable and the latent class for the respondents are estimated. Used in this context, 'latent' refers to variables or classes (groups) that are inferred from responses to survey questions. These approaches, though applied in different contexts, have the potential to reveal unobserved heterogeneity from the data. This paper, will argue that the potential heterogeneity within a sample is worth investigating and will show how it can be empirically tested with the real datasets. In order to focus particularly on a key citizenship issue, the relevance of 'unobserved heterogeneity' in students' expression of political trust will be examined using English data from the recently completed ICCS (Schulz et al., 2010) This will raise important issues about the nature of political trust as well particular measurement issues when unobserved heterogeneity is identified.

Analysis of political trust data of England: An example

Six items forming a political trust scale were identified in ICCS (Schulz et al. 2010). In this study the responses of English students to those items were subjected to mixture Rasch modeling (Rost, 1990, 1991) in the program mixRasch (Willse, 2009) to investigate whether or not there was any unobserved heterogeneity in the data. Traditionally, Rasch modeling is applied to the analysis of data of large scale assessment projects and it is assumed that one and only one measurement model, i.e. the Rasch model, can be used to analyze the data. An assumption of this approach is that the item difficulty parameters are invariant for every person in the sample. However, these assumptions are not necessarily and always true. When there are different sub-samples with different responses to the items, such difference between the sub-samples may lead to variations in item difficulty patterns. In such cases, a single measurement model can no longer be assumed to be true for every individual in the sample. By relaxing the restrictive assumptions

(Rost, 1990, 1991), mixture Rasch modeling assumes that the whole sample can be divided into a finite number of sub-samples, which are often called "latent classes". In mixture modeling, in general, there is no longer a single, universal measurement model for the whole sample; however, it allows different measurement models to hold for different sub-samples which have different item difficulty parameters. For every person in the sample, their probability of belonging to each of the latent classes determined by mixture modeling is estimated. The membership of a particular latent class is indicated by the highest probability.

The results of the mixture modeling were evaluated by three traditional criteria: Akaike information criterion (AIC), Schwartz's Bayesian information criterion (BIC) and Bozdogan's consistent AIC (CAIC). (For an overview, see Read, & Cressie, 1988.) In general practice, these criteria indicate that when different models are compared the model with the lowest indices best reflects the data. However, this paper will focus on comparing a two-class solution in the English data. The reasons for this is to serve as a first demonstration to show how consideration of unobserved heterogeneity in a sample can potentially help us learn about the students more precisely than when such heterogeneity is not considered.

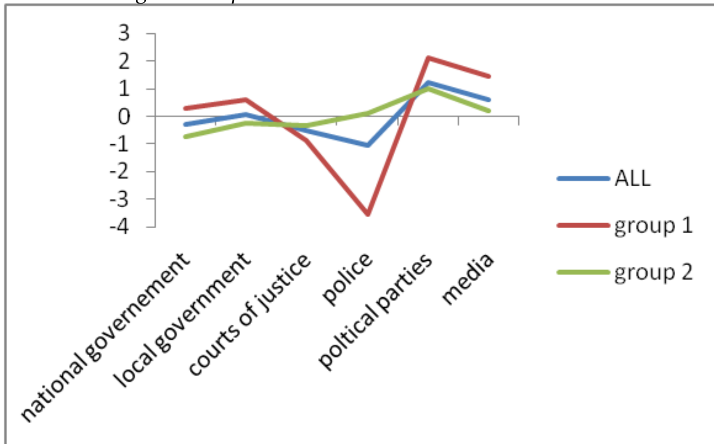
Results

Where does the divergence occurs?

It can be seen from Figure 1, latent groups identified by the mixture Rasch modeling showed both similar and diverging patterns of trust in the civic institutions that together made up the Political Trust Scale. Groups 1 and 2 demonstrated there was quite similar trust in five institutions, namely, the national government, the local government of the town, courts of justice, political parties, and national parliament. However, it is obvious that there was not the same level of trust towards the police as shown by the different response patterns for students in each group. Group 1, representing 39% of the sample, held quite positive views of the police whereas Group 2, representing 61% of the sample, did not appear to share the same positivity towards the police (Note: the

lower the item difficulty, the higher is the trust). What this suggests is that it should not be assumed that there is a general high trust in police, which analysis on all the students as a whole may suggest on Figure 1. The implications of this finding will be discussed later.

Figure 1. Patterns of Trust in Civic Institutions Shown by Sub-groups within the English Sample



Do these group differences matter?

The identification of the different groups (referred to as 'latent' classes because they have been constructed from the survey responses) questions the assumption that all students within a society can be characterized by a single scale score as traditional analyses would suggest. Yet the real issue is to identify the distinctiveness between the latent classes. The latent classes have been identified statistically, but what does it mean? What kinds of students are in the different groups? An attempt is made to explore this issue in the following section.

A number of indicators have been chosen on which we compare the students between the two groups. They are, namely, Highest parents' occupational status, Father's occupational status, Mother's occupational status, Father's educational level, Mother's educational level, Highest parental educational level, Home literacy,

Male percentage, and Civic knowledge. To do this, these have been classified as independent variables and a logistic regression performed to see if any of these variables predict students' membership of the respective groups. However, the results showed that these variables failed to be significant predictors for the membership of the respondents. This is not surprising since in doing this, observed variables are being used to try and predict unobserved variables. Thus the possibility that there are other variables that are not included in the dataset but exist in other source of data should not be excluded. Other than the variables that were tested in the logistic regression, there might be other variables such as the closeness towards police (e.g. whether the students have working policemen or policewomen in their families), prior pleasant and/or unpleasant personal experience with police, etc. It is unfortunate that these variables, as well as the other possible predictors, are not available in the current dataset.

Discussion and Conclusion

In the study reported here it has been shown that the practice of reporting country scale scores on key citizenship attitudes underestimates the complexity and diversity of these attitudes. Using mixture modeling two classes or groups of students were identified in the English political trust data. Although the results of logistic regression did not identify any significant predictors for the membership of the diverging latent classes, it does not exclude the possibility that there are other characteristics of the students that can serve well useful predictors.

The significance of the police as a social and political institution in England was demonstrated recently when the streets of London and, in other major cities in the England, witnessed an outbreak of serious civic misbehavior. The original impetus for this came from dissatisfaction with police action over the unexplained death of a local resident. When it is recalled that 61% of students in this sample did not share the same very positive views towards the police as the minority (39%) did, then such misbehavior can perhaps be understood, if not condoned. That is to say, if there is indeed a reserve of negative sentiments towards the police in

England, then it needs to be kept in mind that in times of social uncertainty this may explode into the kind of misbehavior that was witnessed recently. Yet this latent negativity towards the police was only revealed by the analytical approach reported in this study. It would not have been revealed by traditional analyses as shown by the results for 'All' students in Figure 1. The identification of unobserved heterogeneity, therefore, has the potential to highlight key social issues that otherwise are masked by traditional analyses.

Implication for comparative education research

It is a common approach for many large scale assessment projects to report some "national measures" and regard them as indicators for comparison on a "league table" of participating countries. In this sense, the "unit of comparison" (see Bray, Adamson, & Mason, 2007) is the country. This approach is useful for the purpose of providing a simple measurement score to represent a particular country and a list of rankings among countries. However, this paper has moved beyond this analytic approach. By considering the concept of unobserved heterogeneity, it has been shown that with Rasch mixture modeling latent classes or groups may be identified within a sample. In the English case, two groups of adolescents which were identified showed obviously different attitudes to trust in police, despite comparable levels of trust in the other civic institutions. It needs to be acknowledged that this phenomenon would have been masked when a common, if a single scale score for students' level of "political trust was used. Moreover, the approach illustrated here, which considers the diversity of persons within a population, relaxes the "uniformity" assumption by incorporating "latent groups" and the differences between them. This shows, therefore, it may be too simplistic to summarize the trust of adolescents in police, together with the trust in other civic institutions, with a single score because in reality there are at least two mainstream bodies of attitudes towards police and it is also important to note that theses two main streams are comparable in size. What is more, in the case shown here, it may well be that the existence of these groups has significant implications for social behavior.

By considering unobserved heterogeneity, this paper has also shown the potential to advance research methodology in comparative education studies. Beyond comparing the scale scores of different countries in a "league table", the typical approach of comparative analysis for large scale assessments, , this paper has argued that there may be more nuanced comparisons by focusing on the different patterns of unobserved heterogeneity within a single national sample. It may also be the case, although this is subject to further testing, that there is greater similarity in latent classes or groups across countries than there is within countries. This means that these latent classes or groups, rather than individual countries, might be considered as "unit of comparison" in future comparative research. This means that latent classes can be compared across countries rather than comparing either a high or low national scores. Do the same latent classes exist in different countries and, if so, what accounts for these cross-national classes? This would represent a new line of research for comparative education

Further direction for research

This paper has moved beyond the traditional approach of data analysis generated from international large scale assessments to show how an alternative analytic approach can lead to a different kind of comparative analysis for such data. Instead of adopting comparative methods that produce scale scores ranking countries in a "league table", the analysis reported here has demonstrated the usefulness of considering the importance of diversity within country samples. More effort is needed to understand why such diversity exists and if its sources can be uncovered. This provides a new agenda and a significant challenge for future comparative research concerned with large scale assessment.

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Lexical and syntactic transfer in writing: a pilot study of two Chilean learners of EFL

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Introduction

Transfer is crucial during the learning and acquisition of a Second Language (L2) and can affect learners' production and reception at all stages of learning. The process of transfer can be explained as the use of structures or lexical items which are concurrent with or deviant from the target language, but which are in fact copies of structures or lexical items from the learner's First Language (L1) (Larrañaga, Treffers-Daller, Tidball & Ortega, 2011). Transfer is a common occurrence and as such, it is crucial to acknowledge its use and utility by learners during the process of second language learning and acquisition. Transfer is not always negative; structures and lexical items from a learner's L1 may transfer into their L2 with accuracy and naturalness. This may be particularly the case where a learner is acquiring a language which is cognate with their L1 and as such has a high degree of reciprocity or overlap. However, even cognate languages contain distinctive structures and words which L2 learners must identify as reciprocal or non-reciprocal in order to improve their writing by avoiding negative transfer. Transfer often occurs via translation, particularly for lexical items. Adult L2 learners rely on L1 translation particularly for lexical processing and production; learners' knowledge of L1 informs their use of L2 vocabulary to varying degrees depending on their proficiency (Jiang, 2004).

The objective of this pilot study is to analyse texts written by two learners of English, whoseL1 is Spanish, to identify lexical and syntactical transfers from their L1. The learners' L1 and L2 are cognate languages; therefore, there exists both reciprocity and overlap in terms of lexical items and syntactic structures as well as divergences. These similarities and divergences are the subject of the analysis of this paper.

Literature Review

Cognate languages are those which have a high degree of structural, lexical, and/or syntactic reciprocity (Ringbom, 2007). This reciprocity is due to the languages sharing a common ancestor. Spanish and English are cognate languages from the Indo-European family; the two languages share an estimated 15,000 cognate words, many etymologically derived from their shared Latin ancestry (Dressler, Carlo, Snow, August & White, 2011; Malabonga, Kenyon, Carlo, August & Louguit, 2008).

Learning an L2 when the L2 is cognate with one's L1may present both advantages and disadvantages. Advantages include initially higher receptive skills, resulting in faster acquisition of productive skills, higher motivation and reduced anxiety (Milleret, 1992; Carvalho, 2002). However, the proximity between the languages can also create interference, leading to higher occurrences of negative transfer. Learners may perceive and generalise the overlap and possibility of successful transfer with aspects of the two languages which are not in fact reciprocal (Carvalho, 2002). The reciprocity between two cognate languages can manifest structurally, lexically and/or syntactically, presenting L2 learners with opportunities to utilise their L1 knowledge (Ringbom, 2007).It is important to note that linguistic distance and intelligibility within a cognate language pairing are seen to be asymmetrical; speakers of one language may find it easier to comprehend speakers of another than the other way around (Schüppert & Gooskens, 2010).

Wranger, Spratt and Ezzaki (1989) conducted a longitudinal study with Moroccan Arabic and Berber children studying Modern Standard Arabic (MSA) and French to investigate the effects of linguistic distance on language acquisition. The Moroccan Arabic children spoke a dialect of Arabic, a Semitic language, as their L1, whereas the L1 of the Berber children belonged to the linguistically distinct Hamitic family (Wranger et al, 1989). The results of Ibrahim's study show that the Moroccan Arabic children had greater success in the acquisition of Modern Standard Arabic than the Berber children, whereas neither group of children held any

advantage over the other in the acquisition of French (Wranger et al, 1989).

Skills transferred from a learner's L1 to their L2 commonly include literacy skills, academic skills, critical thinking and learning strategies, as well as explicit lexical and syntactical rules (Hohenstein, Eisenberg &Naigles, 2006; Ibrahim, 2006; Leki, 1991). However, explicitly how learners transfer knowledge from L1 to L2 depends on the macroskill, task difficulty and their level of proficiency in the L2; beginners use their L1 rules more frequently than advanced learners, and difficult tasks often cause learners to refer back to their L1 rules while writing (Jiang, 2004; Woodall, 2002). For example, Chan (2010) investigated the L2 (English) texts produced by a group learners (L1 = Cantonese) from Hong Kong and found that the L2 errors were mainly due to the interplay between L1 and L2. Chan (2010, p. 310) explains, "Many learners tend to think in their native language first, before converting their mental output into L2 written output". Resultantly, the degree of reciprocity between a learner's L1 and L2 may determine the extent to which *transfer* may help or hinder their L2 learning.

Various factors may affect learners' L2 writing when their L1and L2 are cognate languages. The first factor is the false cognate or the false friend (Hall, Newbrand, Ecke, Sperr, Marchand & Hayes, 2009); words which look and sound similar in the two languages but have completely different meanings and as such, present problems to learners. Learners' ability to recognise true cognates is another factor; learners who are not aware enough of etymological links between their L1 and L2may fail to recognise true cognates. Furthermore, many languages which have many true cognates in their lexicons may be grammatically and/or culturally quite divergent. Within the Indo-European family, for example, the Romance and Germanic languages share many cognates, many of them derived from Latin, but differ greatly with regards to structure and syntax.

Method

Two pieces of text in English, written by two learners of EFL whose L1 is Spanish, comprised the data for the study. The participants received EFL instruction at a tertiary institution in Santiago, Chile, as part of their degree in Primary Education. Texts were produced in response to a task that required them to write a formal cover letter to accompany a job application.

The analysis focused on the identification of transfer evident in the texts. Here, the investigation was limited to the transfer of lexical and grammatical knowledge. Evidence of transfer in the learners' texts was observed by translating the texts into Spanish and comparing the translations with the original texts. Based on crossovers between the texts and the translations, a list of forms of positive and negative transfer was compiled. See Appendix 1 for the original texts and Appendix 2 for the translations.

Findings

Positive and negative transfer was found in the learners' texts, particularly with regard to the use of cognates. The findings are tabulated below.

A number of cognate nouns were used in the learners' texts. For the most part, this has resulted in positive transfer (See Table 1). A number of cognate verbs were also used in the texts. However, there were examples of the transfer of syntactical rules, providing evidence for negative transfer.

The texts also featured instances of positive and negative transfer with regard to the learners' use of prepositions, articles and adjectives.

There were also linguistic errors in the data which cannot be accounted for by transfer. However, these were deemed to be beyond the scope of this pilot study, and as such are not presented here.

Nouns		Verbs	
English *(Learners' Texts)*	***Spanish*** *(Translation)*	***English*** *(Learners' Texts)*	***Spanish*** *(Translation)*
exams	exámenes	[I am] interested	[me] interesa
future	Futuro	admit	admitir
inmigrants	inmigrantes	entertain	entretener
processes	procesos	I consider myself	me considero
programmes	programas	thanking you for read	[gracias] por leer
publication	publicación		
students	estudiantes		
supermarket	supermercado	volunteering	ofrecerse[voluntariamente]*
english (not capitalised)	inglés (not capitalised)		

Table 1: Transfer of nouns and verbs

*Although the present progressive verb in Spanish is *ofrecerse [voluntariamente]*, the noun "volunteer", *voluntario*, remains cognate, as does the adverb "voluntarily", *voluntariamente*.

Prepositions & Articles		Adjectives	
English *(Learners' Texts)*	***Spanish*** *(Translation)*	***English*** *(Learners' Texts)*	***Spanish*** *(Translation)*
[omitted article] United State[s]	Estados Unidos	temporal	temporal
during	durante	autodidactic	autodidáctica
I worked as [omitted article] newspaper delivery *[person]*	Trabajaba como repartidor	numerous	numerosas
job as [omitted article] Salesman	puesto de vendedor	responsible	responsable
related with	relacionado con	related	relacionado
where to work	*[en]*donde trabajar		
with a good mood	con buena disposición		
[omitted article] universidad catolica	la Universidad Católica		

Table 2: Transfer of Prepositions, Articles and Adjectives

Discussion

Evidence for positive transfer was found in the data, particularly with relation to the lexical transfer of nouns, verbs and adjectives. The learners demonstrated cognate recognition with the use of lexical items such as *procesos/processes*, *programas/programmes, publicación/publication, admitir/admit*, *entretener/entertain*, and *autodidáctica/autodidactic* (see Tables 1 & 2) indicating the positive role that *transfer* can play in L2 learning. Cognate recognition is extremely important for developing L2 writing proficiency, particularly for learners whose L1 and L2 are alphabetic languages like English and Spanish. For example, learners' phonological awareness and word recognition skills in Spanish can be transferable to the learning of English (Pollard-Durodola & Simmons, 2009) where the process can result in increased levels of accuracy and a broad lexicon, providing learners with a stronger knowledge base to draw upon while writing.

Therefore, an explicit undertaking by teachers to make their learners recognise cognates can lead to increased levels of accurate morphosyntactic transfers and a widened lexicon which will facilitate the mastery and production of an L2. The demonstration of explicit linkages between cognate pairings identifiable by their morphological forms by teachers can be a useful strategy for Spanish learners of English. For example, teaching students to recognise the frequently occurring, corresponding suffixes ("-ity", "-ing" and "-ly") in English with their Spanish counterparts ("-idad", "-ando/-endo" and "-mente") and teaching students to compile a list of transferable cognates would prove to be useful strategies.

Evidence of negative transfer through the use of non-reciprocal lexical and syntactic rules was observed in relation to nouns, verbs, prepositions, articles and adjectives in the data.

Overgeneralisation of lexical reciprocity was responsible for several of these errors. One example of this, involving the assumed reciprocity of an orthographic rule, concerned the use of the cognate noun *immigrants*. The learner has spelt the word *i**n**migrants*,

recalling the spelling of the Spanish word *inmigrantes*, which is cognate with the English word *immigrants*- an instance where overgeneralisation has occurred due to orthographic similarities between L1 and L2 lexicons. The use of a false cognate with regard to the adjective *'temporal'* was also evident in the data where one of the learners used the English word *temporal* to describe an impermanent or temporary job; while the adjective *temporal* is contextually appropriate in Spanish, its different use in English renders it a false cognate.

The negative transfer of syntactical rules relating to verbs, articles and prepositions was also evident in the data. One example of this was the omission of the definite and indefinite articles. The indefinite article 'a' was omitted before the singular, countable noun phrases "salesman" and "newspaper delivery [person]". This is an instance of negative transfer caused by the knowledge that in Spanish, singular non-modified nouns which describe nationality, profession, position or religion are not preceded by an indefinite article. For example, the phrase "I worked as a teacher" (trabajaba como profesor/a – I worked as teacher) does not require the indefinite article 'a'. Another example of article omission from the data involved the omission of the definite article "the" before 'United States' (I have been in United State[s] twice); colloquially, the definite article is not required in this instance in Spanish to refer to the United States (Estados Unidos). Negative transfer resulting from the knowledge of L1 verb conjugations was also present in the text where the direct translation of the learner's phrase 'thanking you for read this' is *'graciaspor leer…'* (thank you for read…).

The instances of negative transfer observed in the data can be the focus of useful pedagogic discussion in the language classroom, where learners can learn to be cognisant of the non-transferability of specific lexical and linguistic knowledge. There are perspectives presented in the literature to address the situation. For example, Meyer (2008) and Shen (2011) note that such discussions may be particularly pertinent to heighten the knowledge of non-reciprocity and linguistic divergence between languages where learners' L1

and L2 are cognate. Bravo (2011) advocates the strategy of having students write sentences, contextualising false cognates appropriately in their L1 and L2, to remind themselves of the differences in meaning. Vilaça (2009) identifies the need to show explicitly the processes by which cognate words may be formed, including the use of affixes and suffixes in L2 instruction.

Although the data used in the pilot study are limited, the findings indicate that transfer does play an important role in L2 learning, especially in contexts where learners' L1 and L2 are cognate, and by extension, where they are not. This important finding has far reaching consequences for L2 curriculum development and pedagogy in which learners' knowledge of their L1 can be used as a resource rather than an impediment for furthering their linguistic abilities in the target language.

Conclusion

This paper reported the findings of a pilot study which aimed to identify instances of lexical and syntactic transfer evident in the writings of two Spanish-speaking learners of English as a Foreign Language (EFL). The pilot was carried out as part of a much larger project that aims to investigate the effects of transfer in order to accommodate them in curriculum, instruction and pedagogy of English-language learners whose L1 is Spanish.

Findings indicated that the learners carried over their knowledge of L1 rules, including lexical items and grammatical structures, into their L2 writing. Evidence of transfer had been both positive and negative; transfer was positive when it took place through the use of lexical items and syntactic structures which are cognate with the learners' L1. However, it showed a negative effect with regards to the use of items and structures which were non-cognate learners, when assumed reciprocity where it did not exist.

Furthermore, the findings of this pilot study had the following implications for its larger project in terms of research design and methodology:

1. As the application of L1 knowledge depends on learners' knowledge of both their L1 and L2, a sample of learners representing different levels of proficiency in their L1 and L2 would yield comprehensive findings;
2. Learners engaged in L2 tasks and text types with different levels of difficulty may utilise their L1 knowledge selectively. Therefore, a combination of tasks and text types with different levels of difficulty with learners from different L1 and L2 (implication 1 above) proficiency levels would broaden the findings;
3. The finding that transfer is mostly positive when used with cognate lexical items and syntactic structures is an important point of concern with regard to non-cognate languages. For example, how do learners make use of their L1 in producing their L2 when their L1 and L2 are not cognate languages? Such an investigation also should broaden its scope by accommodating linguistic categories beyond vocabulary and syntax; other categories need to include knowledge of discourse, semantic and pragmatic rules.

A combination of criteria discussed above (1, 2 & 3) would not only strengthen the findings but also provide a rich perspective on how learners utilise 'transfer' to facilitate their learning and acquisition of a target language.

Appendix – 1: Learners' Texts

Learner 1

Dear Principal
I am a English teacher, currently doing an MA at universidad catolica about learning's processes, I have been in United Stated twice, and I had the chance to get a temporal job as a Spanish teacher volunteering for inmigrants during three months.
I know how to work with office (word, excel, power point etc.) can also another kind of English programmes to teach students how to learn english easily and entertain and I am always looking for new ones.
I consider myself an autodidactic person, of course I am good with people, I do my best for my student to learn and love English, because nowadays knowing English you can get a better position in your job and you have numerous chances to get a good place where to work.
I`m very interested in the job, I love my work as a teacher and a want to continue to teach people this very important subject thus our student and our country will get a better development in the future. I would really like to get the job in your school as I know students need to improve their skills.

Learner 2

Dear Miss Delaware
This letter follows your Job publication in the supermarket. I am really interested in the job as Salesman, but I have to admit that I never worked in something related with sales. When I was younger I worked as newspaper delivery and I have very good references for that. I am just Seventeen but I am a hardworking guy and a very responsible person so when I am in my free times I study for my school exams. I like to work with people and it is easier for me because I am outgoing and with a good mood. I hope you consider my request, I really need the job and I am sure that I will not disappoint you and I will give my best every day and every time.
Thanking you for the read this, sincerely

Appendix – 2: Literal Translations of the Learners' Texts

NOTE: **Incorrect syntactical structures and lexical structures have been preserved in these translations in order to note instances of transfer. Structures presented correctly in English have been translated correctly into Spanish to avoid confusion.**

Learner 1

Estimado Director
Soy profesor del inglés, actualmente haciendo un MA en universidad catolica sobre los procesos de aprender, he estado dos veces en Estados Unidos, y tuve la oportunidad de conseguir un trabajo temporal como profesor del castellano trabajando voluntariamente para inmigrantes durante tres meses.
Sé trabajar con office (word, excel, powerpoint etc), sé también otro tipo de programas ingleses para enseñarles a los estudiantes cómo aprender el inglés fácilmente y entretener y estoy siempre buscando nuevos.
Me considero una persona autodidáctica, por supuesto que me llevo bien con la gente, hago todo lo que puedo para que mi estudiante aprenda y ame el inglés, porque hoy en día saber el inglés se puede conseguir un puesto mejor en su trabajo y tiene oportunidades numerosas para conseguir un buen lugar en donde trabajar.
Me interesa mucho el puesto, amo mi trabajo como profesor y [yo] quiero continuar a enseñarle a la gente esta materia muy importante entonces nuestro estudiante y nuestro país tengan un desarrollo mejor en el futuro. Me gustaría mucho conseguir el puesto en su escuela porque sé que los estudiantes necesitan mejorar sus habilidades.

Learner 2

Estimada Srta. Delaware,
Esta carta sigue su publicación de Trabajo en el supermercado. Me interesa mucho el puesto de Vendedor, pero le tengo que admitir que nunca trabajé en algo relacionado con vender. Cuando era más joven trabajaba como [repartidor] y tengo muy buenas referencias para eso. Solo tengo Diecisiete años pero soy un tipo trabajador y una persona muy responsable entonces cuando tengo tiempos libres estudio para mis exámenes de la escuela. Me gusta trabajar con la gente y es más fácil para mí porque soy extrovertido y con buena disposición. Espero que considere mi solicitud, realmente necesito el trabajo y estoy seguro de que no la vaya a decepcionar y haré todo lo que puedo cada día y cada vez.
Gracias por leer esto, sinceramente.

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