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## Review

## International comparative studies in teaching and teacher education

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#### ABSTRACT

This review of eight papers published in *Teaching and Teacher Education* over the past twenty years shows how the profession has been impacted by the forces of globalisation. The impact varies in different contexts, according to local factors. The review looks at papers that use explicit international comparisons as a means to bring local contextual characteristics into sharp relief, and discusses the values and pitfalls of this approach. The review concludes by suggesting a possible future agenda for international comparisons, one that seeks answers to the domestic challenges of the Millennium Development Goals and Education for All by looking for solutions overseas. However, international appropriation needs to remain highly sensitive to the cultural context of implementation.

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## 1. Introduction

The use (and some argue abuse) of international comparative studies has become a prominent feature in policymaking and related processes, fuelled by the globalised nature of education, which is characterised by increased technological, information and pedagogical transfer. Crossley and Jarvis (2000, p. 261) have remarked both on "the exponential growth and widening of interest in international comparative research", and on the "increased recognition of the cultural dimension of education" in recent times. The formation of larger international economic groups, geo-political shifts, the relative ease of international transportation, the development of information technology and other factors have resulted in comparative education research often being used by policymakers eager to find innovative solutions from elsewhere for domestic problems. The predominance of neo-liberal discourses in education have increased the uniformity of policy goals, reinforced by international measures of student performance such as PISA and IEA; by the value ascribed to the rankings of higher education institutions, such as the Shanghai Jiaotong University's Academic Ranking of World Universities, the Times Higher Education World Rankings and the US News and World Report; and by the creation of supra-national frameworks, such as those embodied in the Bologna Process, which sets out compatible standards of academic degrees and quality assurance across Europe (and,

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increasingly, beyond). At the same time, the emphasis on research output as a measure of performance has spread around the world, leading to journals such as *Teaching and Teacher Education* publishing papers from a broader spectrum of contributors than previously. All these developments have encouraged greater interest in the inter-relationship between the global trends and the local responses.

This journal has responded to the challenges and opportunities of globalisation by seeking to become truly international in scope and outlook. In a series of editorials in recent years, the editors have set out guidelines for authors that cultivate an awareness of the diverse contexts in which the readers operate and their different cultural frames of reference. For instance, writing in an editorial entitled "Unpacking our assumptions about teacher educators around the world" (Volume 27, Issue 2), co-editors Mary Lynn Hamilton and Jean Clandinin explain:

What we hope to do by encouraging authors to situate their work within an international context is to ask them to read research grounded in other contexts and to imagine how an international audience might resonate with their studies. Is that enough?

Culture can be understood as an interactive knowing through which we construct relationships and interpret our surrounding world. In this way, culture is part of our knowing and shapes our actions. Our experiential knowing encompasses both individual beliefs and shared beliefs about customs and traditions (Quinn & Holland, 1987, for example). Shared cultural beliefs are the expected, unspoken, tacit aspects of the world and are a part of this interactive knowing that contribute to each of our responses toward even the smallest things — e.g. how we

<sup>†</sup> This review also serves as the Editorial for the Teaching and Teacher Education Virtual Special Issue on International Comparative Studies, available online at: http://www.journals.elsevier.com/teaching-and-teacher-education/virtual-special-issues/virtual-special-issue-on-international-comparative-studies/.

interpret experience like the way a person stands (Holland, Skinner, Lachicotte, & Cain, 1998; Quinn & Holland, 1987). Yet, sometimes our experiential knowing, shaped by different cultural backgrounds, impedes rather than encourages us. Our experiential knowing, shaped as it is by culture, help make us who we are, affect how we understand the world, influence our choices, and potentially separate us from others. This can keep us bounded by our own knowing; we draw ideas from what we know. These ideas about the shaping influence of cultural customs and traditions can influence how we engage in our research in teaching and teacher education.

The enduring interest in international comparisons is reflected in a range of papers published in recent volumes of *Teaching and Teacher Education*. Often, these articles are labelled "cross-cultural" studies, due to their interest in the relationship between culture and the policies, practices, beliefs and values that they investigate. The papers reviewed in this editorial reflect the broad scope of comparative education, which can include all the areas that fall within the field of education. Content analysis of a selection of recent books on comparative education research (Alexander, Broadfoot, & Phillips, 1999; Bignold & Gayton, 2009; Bray, Adamson, & Mason, 2007a; Kubow & Fossum, 2002; Mundy, Bickmore, Hayhoe, Madden, & Madjidi, 2008; Thomas, 1990) shows that units of analysis covered by the field of comparative education include, to name but a few:

- locations
- systems
- policies and policymaking processes
- times
- cultures
- values, conflict resolution and citizenship
- educational achievements, international indicators and student performance
- curricula
- educational organisations, governance and accountability
- ways of knowing and learning
- ways of teaching
- economics of education
- assessment
- teacher education and professionalism
- ideologies, goals and purposes of education
- social equity and access to education
- language in education

The classic approach to comparative education has comprised country- or systems-based comparisons, usually in the form of a two-location study. This approach has been a feature of studies from the early 19th century. An alternative model puts education in one location at the centre of analysis and then makes comparisons as appropriate with other locations. A third variation has several locations, each given equal treatment (Bray, Adamson, & Mason, 2007b). The first and third approaches are found in the papers covered in this review. Specifically, the review addresses the following questions:

- What is the value of the international comparative approach?
- What are the pitfalls of using this approach?

In selecting the papers for review, I started by reading the abstracts of all articles published in the journal since its inception. I compiled a list of papers that contained a strong sense of context as a consideration affecting the findings. In whittling down the list, I did not include articles that focused on a single context (even though it could be argued that these papers are implicitly comparative by inviting readers to make their own comparisons

between the context described in the paper and another culture that is familiar to the readers), and those that were intra-national in their comparisons. I also left out papers that focused on multiculturalism and diversity in the classroom, in teachers' beliefs, in teacher education, and so on; this important topic is worthy of separate treatment. For reasons of space, the final list of articles was limited to eight papers that use international comparisons, selected for the range of topics, contexts and methodology they contain. Several excellent papers were omitted.

The papers are ordered in this review somewhat organically. They are loosely organised into focal themes (teacher education policy, teacher beliefs and classroom practices). The review concludes with a discussion of two questions set out above.

## 2. Teacher education policy

Young, J., Hall, C., & Clarke, T. (2007). Challenges to university autonomy in initial teacher education programmes: the cases of England, Manitoba and British Columbia. *Teaching and Teacher Education*, Vol. 23, Issue 1, pp. 81–93.

The governance of education has undergone comprehensive transformations in the era of globalisation, with education currently being seen predominantly as an economic good, and concepts from business, such as quality assurance and accountability, being applied to its governance. The unit of analysis in this comparative study is the nature of teacher preparation as defined by the funding, regulatory and delivery mechanisms of state governance. The contexts of England and Manitoba and British Columbia in Canada are chosen partly for reasons of convenience (an inter-institutional linkage scheme between Canada and England) and partly because the comparison reveals three different modes of governance. The authors use policy analysis, highlighting key legislation and judicial rulings to chart the evolution of the three models. The English model, labelled as "political" in the article, is characterized by strong control by the state seeking to create a standardized and standardsbased system in an attempt to assure the quality of teacher preparation programmes. The "institutional" model found in Manitoba involves less direct control by government ministers, although they have been increasingly active in setting parameters for programmes. The locus of responsibility for determining the content of the programmes rests with the individual institutions. The third type, the "professional" model of British Columbia, has evolved through negotiated settlements (sometimes involving the courts) between the state and the teacher education providers.

The authors conclude that the existence of three different models can be attributed to differing ideologies of teacher education:

Illt is possible to argue that the degree to which the state, the universities, or the profession dominate the governance of initial teacher preparation is directly related to different notions of teachers' work and the nature of the teaching profession. In this regard we would distinguish between the characterisation of initial teacher preparation as essentially: (i) a generative practice in which enquiry (and therefore knowledge production) is a defining feature of the teaching profession—a stance that would dovetail most easily with the mandate of the university; (ii) a replicative practice of socialisation and induction—necessarily drawing on the embedded practical expertise of teachers; or (iii) a prescriptive practice designed to properly prepare new teachers to effectively implement a provincial or national agenda for schooling-where government control and supervision would logically prevail. Clearly, these categorisations are not mutually exclusive and in some measure one might expect initial teacher preparation programmes to exhibit all three to varying degrees.

However, the extent to which one dominates the other within teacher preparation has the potential to lead to significantly different notions of teacher education.

This paper illustrates the power of juxtaposition—setting objects of analysis side-by-side for the purposes of comparison—for bringing out the key characteristics of different contexts. The authors see the value of comparison for "the benefits that can come from an examination of the ways in which educational policies and practices are constructed in different national contexts". They suggest that the models represent three different responses to a shift in political culture, namely,

the destabilisation of an existing post-World War II educational settlement in both Canada and England that had assigned to the universities primary authority in the governance of initial teacher education, and the ongoing efforts to establish a new policy settlement in initial teacher preparation.

One critical feature is the political power of the teaching profession and its institutions. The British Columbian settlement owes much to their strength, while, by implication, their subjugation in the English model reflects their weakness.

Flowing on from this study, further research might explore the reasons that account for the emergence of the approaches to governance from a cultural perspective. Such studies would assist us in understanding the dynamics and therefore the transferability of these policies.

Harber, C., & Serf, J. (2006). Teacher education for a democratic society in England and South Africa. *Teaching and Teacher Education*, Vol. 22, Issue 8, pp. 986–997.

Harber and Serf compare the preparation of teachers in England and South Africa to handle the development of citizenship and democratic participation in society. The choice of England and South Africa for the comparison is based on contrasts and similarities. England is an established democracy whereas South Africa is a new one, dating back to just 1994 when the structures of apartheid were dismantled. On the other hand, the two countries share historical, political, cultural and economic ties.

The authors' argument for the focus of this study is that schools play an important socializing function in preparing young people for life in a democracy, and thus teacher education institutions have a responsibility to equip student teachers to undertake this task. The issue is worthy of study, Harber and Serf contend, because a review of the literature suggests there is an incongruence between government rhetoric calling for citizenship education, and the structures and practices of schools and teacher education institutions. Their study comprises the literature review mentioned above, in order to provide an historical context of government policies and earlier research on the topic, and group interviews with 38 student teachers, 20 in England and 18 in South Africa.

Shaping their investigation is the authors' description of the characteristics of a democratic person, who:

would, for example, celebrate social and political diversity, work for and practice mutual respect between individuals and groups, regard all people as having equal social and political rights as human beings, respect evidence in forming their own opinions and respect the opinions of others based on evidence, be open to changing one's mind in the light of new evidence and possess a critical and analytical stance towards information. The democratic citizen would possess a proclivity to reason, openmindedness and fairness and the practice of cooperation, bargaining, compromise and accommodation.

The interview data confirmed the incongruence between rhetoric and practice—more so in South Africa, where the government had explicitly called for education in democratic citizenship. Student teachers cited reluctance to handle controversial matters in the classroom and claimed that their lecturers did not provide a good role model due to inertia, inexperience and the exigencies of other priorities. In England, the incongruence is less pronounced as the authors detect a lack of commitment on the part of the government towards teacher education for democratic citizenship—which is omitted from documents setting out official standards—and see this lukewarm attitude reflected in the practices of teacher education institutions. The paper concludes by advocating much greater engagement by teacher education institutions and by schools in educating democratic citizens.

Harber and Serf's paper demonstrates the value of comparative analysis in addressing important social issues. The juxtaposition of two contrasting democracies (in terms of age), the use of historical contextualisation and the locating of the present study in relationship to existing literature all assist the reader in understanding the nature of the problems in each context, some of the causes and how the situations could be remedied. Specifically the paper brings to the fore a number of issues that policymakers need to address. How can the policy in England be made clearer, more specific and more overt? How can the content and practices of teacher education become more consistent with this increased emphasis on education for democracy? How can a sufficient cadre of teacher educators able to work in a democratic manner be developed in South Africa? Who educates the educators? Who trains the trainers?

## 3. Student teacher learning

Blömeke, S., Suhl, U., Kaiser, G., & Döhrmann, M. (2012). Family background, entry selectivity and opportunities to learn: what matters in primary teacher education? An international comparison of fifteen countries. *Teaching and Teacher Education*, Vol. 28, Issue 1, pp. 44–55.

In recent years, international studies of educational achievements, such as PISA and IEA, have become important benchmarks for policymakers. They also offer large-size samples for the application of quantitative research techniques to investigate the factors that contribute to the effectiveness of education programmes. The paper by Blömeke et al. seizes the chance to focus on the development of student teachers' competencies as mathematics educators. Competencies, which the authors define as "the cognitive and affective-motivational wherewithal to solve job-related problems successfully", are categorized into beliefs and knowledge (such as mathematical content knowledge (MCK) and mathematical pedagogical content knowledge (MPCK)). As the MCK and MPCK of student teachers are relatively under-researched, these aspects are investigated. To underpin their analysis of student teachers' selfreported data, curricular documents and test scores, the authors draw a theoretical model from the literature on school effectiveness and transpose it to this systems-level study of teacher education, with three hypotheses being made:

- H1. that the curricular experiences, or "opportunities to learn (OTL)" in mathematics and mathematics pedagogy and research-based learning provided by primary teacher education programmes, significantly predict the development of competencies in terms of MCK and MPCK.
- H2. that gender, socio-economic status, language background, high-school achievement and motivation have significant impact on the acquisition of MCK and MPCK.
- H3. that OTL effects are partly mediated by differential teacher intake.

The comparison involves fourteen countries and Taiwan. The selection was driven by the availability and quality of the data, in that

all met the criteria for inclusion in IEA studies. As the authors note, this use of national-level data is not unproblematic, as it does not take account of diversity in teacher education programmes within a country. On the other hand, the large sample sizes mean that the statistical results can be regarded as having greater reliability.

The findings reveal the significant effect of OTL on the development of the student teachers' MCK and MPCK. While H1 and H3 were supported, only gender (in favour of males) in H2 had a significant impact upon MCK (but less upon MPCK). Entry selection, either by the teacher education institution or by a student self-selecting, was relevant to the development of competencies.

This study not only contributes towards the building of a comprehensive model to enable us to understand what makes a teacher education programme effective, it also opens up a range of questions that could enhance that model-building. The authors suggest that a longitudinal study would complement their snapshot approach. They also recognize the scope for further investigation in individual contexts into issues such as gender and language. To me, the latter point seems crucial for the building of an international model of teacher education effectiveness. Gender roles in society are heavily influenced by cultural values, and language rights are important determinants of an individual's access to political and economic opportunities. Therefore these contextual factors would need to be navigated if an international model were to be implemented locally.

You, Z., & Jia, F. (2004). Do they learn differently? An investigation of the pre-service teachers from US and China. *Teaching and Teacher Education*, Vol. 24, Issue 4, pp. 836–845.

You and Jia's study focuses on how pre-service teachers in USA and China learn, with a view to challenging existing beliefs about Western and Asian approaches to learning—a subject that has received a great deal of attention since international studies of student achievement suggested that the USA and other Western countries were lagging behind Asian countries in a number of core subjects, especially science and mathematics. The study investigates two groups of around 130 participants, one studying in Beijing and the other in a Midwestern US university. According to the authors, these samples are "fairly representative of the teacher education major student population in each respective country".

The methodological approach involved the application of two questionnaires, the revised two-factor Study Process Questionnaire (R-SPQ-2F) and the Perceptual Learning Style Preference Questionnaire (PLSQ). The results for the R-SPQ-2F, which explores learning approaches categorized as deep/surface motivation and deep/surface strategy, indicate that, contrary to prior beliefs that Chinese learners tend to use surface approaches, the pre-service teachers in Beijing "were more likely to be motivated to learn due to their intrinsic interests for knowledge and adopt strategies leading to real understanding and personal growth" than their US counterparts. Similarly, in terms of learning styles (visual, tactile, auditory, kinesthetic, group and individual), the PLSQ showed that the US learners were much more kinesthetic than the Chinese learners, which again contradicted the findings of previous research. The paper concludes that the study:

... lends empirical evidence to the assumption that learning styles and learning approaches do vary across cultures, specifically between Chinese and American teacher education students. In this study, the Chinese participants demonstrate more interest in understanding knowledge through reading widely, deeply, and actively while the American participants appear to be relatively more interested in meeting the evaluation requirements. The findings also reveal that American preservice teachers are more experiential-learning-oriented than their Chinese counterparts. That is, the former prefers learning

by doing and integrating the theoretical learning process with real-world experiences or simulated experiences. Moreover, the study indicates that the American students are more inclined to learn via reading texts and notes than their Chinese peers.

This small-scale study is an example of how a comparative study can make a useful contribution by challenging the portrayals in the current literature on cultural influences on learning. The paper also offers some suggestions to explain the findings emerging from the questionnaires, such as the influence of Confucianism and an emphasis on diligence in Chinese culture, the competitive environment in higher education, and the strong support from the family. It opens up questions such as "What are the cultural influences on US students' learning, especially given the diversity in the student population?" The study also provides a platform for further research that can deepen our understanding of the complexity of contexts and the interaction between social cultures and an individual's approaches to learning. Such research could critically examine the dichotomy of "Western" and "Chinese" approaches to learning, in order to arrive at a more nuanced understanding.

## 4. Teacher knowledge

Trumper, R., Raviolo, A., & Shnersch, A. M. (2000). A cross-cultural survey of conceptions of energy among elementary school teachers in training—empirical results from Israel and Argentina. *Teaching and Teacher Education*, Vol. 16, Issue 7, pp. 697–714.

This paper identifies a problem in the teaching of science—the fact that many science teachers tend to have misconceptions about the scientific topics that they are teaching. A comparative approach is used to investigate whether these misconceptions vary across cultures, with the reasoning that each culture has a particular way of seeing and representing the world that might influence the science teachers in the cultural group to have conceptions that diverge from those held by the scientific community. If Israeli science teachers vary in their misconceptions from those held by their counterparts in Argentina, the misconceptions could then be reasonably ascribed to cultural differences. The choice of Argentina and Israel as the locations for this study is explained in terms of language. Hebrew and South American Spanish are significantly different linguistically and are bound up in different cultural traditions. These traditions have produced particular metaphors and other tools that aid the formation of conceptions—or misconceptions.

The authors investigate this hypothesis by presenting elementary school teachers in training in the two places with an identical set of physics problems around the topic of energy—chosen for its importance in contemporary discussions of sustainable development. The responses were categorized using established forms of misconception or "alternative frameworks":

- 1. Anthropocentric: energy is associated with human beings;
- 2. Depository: some objects have energy and expend it;
- 3. Ingredient: energy is a dormant ingredient within objects, released by a trigger;
- 4. Activity: energy is an obvious activity;
- 5. Product: energy is a by-product of a situation;
- Functional: energy is seen as a very general kind of fuel associated with making life comfortable; and
- 7. Flow-transfer: energy is seen as a type of fluid transferred in certain processes.

The findings identified no correlation between the alternative frameworks that the student teachers in each place possessed and their respective macro-culture. However, local contextual factors, such as, in Argentina, the proximity of a nuclear power plant and the provision of a broader science curriculum, did account for some of the differences across the two groups.

The paper concludes that the discrepancies in the frameworks of the student teachers and of the scientific community remain a matter for concern, as, once in post, the teachers will contribute to their students' conceptions of scientific phenomena. The authors call for a constructivist approach to developing appropriate conceptions in the student teachers—an approach that values their existing frameworks. To design effective curriculum materials for the student teachers, there is a need:

- (a) to have knowledge of student teachers' existing understanding in the targeted conceptual areas and to use this as a starting point for the design of appropriate teaching materials;
- (b) for student teachers to become aware of their own views and uncertainties:
- (c) for student teachers to be confronted, afterwards, with the currently accepted concepts;
- (d) to provide experiences that will help student teachers to change their views and conceptions and accept the scientific view.

This paper suggests caution in simply attributing macro-level cultural influences to how teachers think or behave. It provides a timely reminder that culture is multilayered, and local contexts and individual experiences need to be taken into account when seeking explanations for findings. Further research could be carried out to investigate the epistemology of conceptions held by preservice and in-service teachers in order to arrive at fine-grained rather than broad-brush portrayals.

Moin, V., Breitkopf, A., & Schwartz, M. (2011). Teachers' views on organizational and pedagogical approaches to early bilingual education: A case study of bilingual kindergartens in Germany and Israel. *Teaching and Teacher Education*, Vol. 27, Issue 6, pp. 1008–1018.

How teachers handle the challenge of supporting the development of bilingualism in kindergartens is the subject of Moin et al.'s study, which researches the views of teachers whose heritage language is Russian in two settings—Germany and Israel. These countries were paired because of the presence in both of teachers and kindergarten children from Russia, and because neither system has a clear and coherent policy on bilingual education for immigrant children. The notion of kindergartens as a part of pre-school early childhood education is also common to both contexts.

The paper is concerned with teacher reflection, which, the authors argue,

is an important part of the professional behavior of teachers and an essential condition for their professional development and identification. Using reflection permits teachers to construct and reconstruct their professional experiences, identify problems and obstacles and find their solution, and critically examine teacher's own pedagogical ideology and practice.

Specifically, the study elicits teachers' reflections on the problems of integration faced by immigrant teachers in Germany and Israel, and on the socio-cultural and organizational contexts of German–Russian and Hebrew–Russian kindergartens. These issues are derived from a literature review that reveals barriers to integration such as the need for recertification, and the challenges of navigating different forms of pedagogical knowledge and experience. Critical Discourse Analysis (CDA) is used for its potential in investigating social problems and taking into account contextual factors, such as pedagogy, culture and society in this case. Taking one kindergarten in each country, the research comprises

observations, semi-structured interviews with teachers and principals, and the collection of life histories from teachers.

The findings indicate that teachers perceive different curricular orientations—in Israel, the teachers see kindergartens as a place to prepare the children for school, with a focus on literacy and numeracy, according to a state-mandated programme of study, whereas in Germany, the kindergartens have more autonomy and teachers tend to view kindergarten as a place for developing the children as independent individuals. Teachers in both countries found that the Russian immigrant parents expected more formal teaching and resisted the idea of play as pedagogy. In the German kindergarten, the immigrant teachers, who were comfortable with the notion of didactic play, did not embrace the idea of free play.

Both contexts are seen as stressing the value of bilingualism, but expressed through different strategies. In the Israeli kindergarten, the teachers report concentrating first on the heritage language, Russian, while scaffolding the introduction of Hebrew. In the German kindergarten, the heritage language and the host language are more balanced, facilitated by the presence of children from mixed German—Russian backgrounds. The principal in Germany explained her strategy for bridging the gap in pedagogical knowledge and experience by recruiting mainly teachers from East Germany, as they have more in common with the Russian immigrant teachers (whether trained in Russia or Germany) than their West German counterparts. In Israel, the principal commented that it was easier to find well trained Russian immigrant kindergarten teachers than local Israelis.

The paper concludes that the two systems share similar aspirations for fostering bilingualism, but the strategies differ because of variations in the management of kindergartens and the respective demographics. These similarities and differences were revealed through comparing two kindergartens with sufficient commonalities to be meaningful and sufficient differences to highlight the influence of contextual factors, and through the choice of a research method, CDA, which facilitated the exploration of those factors.

## 5. Teacher practices

Lewis, R., Romi, S., Qui, X., & Katz, Y. J. (2005). Teachers' class-room discipline and student misbehavior in Australia, China and Israel. *Teaching and Teacher Education*, Vol. 21, Issue 6, pp. 729–741.

This paper provides an example of how a study in a single context can be enhanced by adding a comparative dimension. Research by the first author, Lewis, into the relationship between teachers' strategies for classroom discipline and student responsibility and misbehaviour in Australia attracted interest from other national contexts, resulting in a new study that included China and Israel. The authors explain the choice of the three settings in the following terms:

Australia is a typically western country, China is a typically oriental country and Israel is approximately half western and half oriental.

The research methodology was sensitive to the cultural factors that the investigators were interested in exploring. Before replicating a study previously used in Australia, the main instrument—a questionnaire—was scrutinized by the Chinese and Israeli researchers for cultural appropriacy and relevance, leading to the discarding of nearly one-third of the original items. The remaining 24 items focused on students' and teachers' perceptions of six disciplinary strategies: Punishing, Rewarding, Involvement in decision-making, Hinting, Discussion and Aggression. A large-scale study involving purposive sampling of 5521 students and 748 teachers, and covering a range of geographical locations, socioeconomic circumstances and school sizes, was conducted.

The results found no statistically significant differences in the perceived levels of classroom misbehaviour in the three countries. However, in terms of disciplinary strategies:

the pattern of usage of the various classroom discipline strategies appears relatively similar in Australia and Israel. In both countries, teachers commonly react to misbehavior by letting students know that there is a problem in the hope that they will improve their behavior. In addition, they are more than sometimes likely to Punish misbehaving students and discuss with them the impact their misbehavior has on others in a bid to have them determine a better way to behave. They recognize appropriate behavior more than sometimes, to increase the likelihood of its reoccurrence, The two strategies utilized less frequently than sometimes are aggression and involvement of the class in setting rules and consequences. The pattern in China is a little different in that students report greater use of all strategies except Aggression and Punishment. Although the relative usage of strategies also varies by Country the only strategy to vary rank within a country by more than two ranks is Punishment, which ranks as the most common strategy in Australia, and the fourth and fifth most commonly used strategy in Israel and China, respectively.

Using cultural factors to explain the differences, the authors suggest that Chinese teachers have less need to resort to punishing misbehaviour because they are traditionally held in greater respect than teachers are in Australian and Israeli classrooms, a respect that is supported by parents. Gender differences in the strategies adopted by teachers in China were explained by the greater respect ascribed to males, which meant that they did not need to use aggression and punishment strategies as often as their female counterparts. The paper ends by advocating a stronger emphasis on relationship-building rather than coercive strategies in the classroom, while acknowledging the cultural difficulties that teachers may face in applying such an approach.

The study provides interesting insights into issues of power relationships in schools, and demonstrates the potential of comparative studies for learning from reflecting on our own practices and those of others. A caveat is the danger of indiscriminate transfer—in this case, if the Chinese relationship-building approach is adopted elsewhere, the importance of student respect and parental support for teacher authority needs to be recognized. At the very least, change would need to be incremental and congruent with the capacity of the local context to accommodate the initiatives.

Santagata, R. (2005). Practices and beliefs in mistake-handling activities: a video study of Italian and US mathematics lessons. *Teaching and Teacher Education*, Vol. 21, Issue 5, pp. 491–508.

The cultural factors influencing teacher—student interactions is also one theme of Santagata's study, which focuses on mistakes made by students in mathematics lessons. The author justifies a comparative approach on the grounds that

[b]ecause the handling of students' mistakes is often embedded in broader instructional activities it is expected that cultural differences would also be observable in ways teachers respond to mistakes.

Santagata's decision to compare Italian and US contexts stems primarily from the differences in the ways in which student grades were handled. At the time of the study, examination results were disclosed publicly in Italy, with each student clearly identified, while in the USA, the results were private. The author suggests another difference is the influence of Behaviourist theories on pedagogical practices in the USA is stronger than in Italy, where researchers have not discerned any predominant theory of learning.

The rationale for investigating cultural influences on the handling of mistakes is provided as follows:

Teachers are often observed falling back on culturally based practices, particularly, when they try to adopt innovative teaching techniques. This falling back is more likely when teachers are faced with complex environments requiring rapid decisions. Teacher—student interactions are often characterized by discourse routines that assure a smooth development of the lesson, yet inhibit changes. The handling of students' mistakes often occurs during quick teacher—student interactions in which the action of correcting mistakes is not the main goal of the broader activity. We may thereby expect these teacher responses to be characterized by culturally shared practices and discourse routines.

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A cross-cultural approach was chosen to specifically highlight those practices, as well as those ideas about mistakes most influenced by cultural values. Juxtaposing one culture with another brings awareness of patterns otherwise difficult to discern[.]

The unit of analysis is the management of mistakes in 60 videotaped eighth-grade lessons (30 from each country), captured in a range of schools that broadly represent the socio-economic profile of the USA and Italy. A 'mistake' was deemed to have occurred when the teacher initiated corrective action with the student, as determined by consultation among three researchers. These mistake management interactions were coded through discourse analysis and categorized in terms of the broader activity in which they occurred (such as working on a task or sharing the results of a test) and the nature of the teacher—student interaction (either *public* discussions with the whole class as audience, or *private* discussions involving just the teacher and the student(s) identified as making the mistake).

The findings showed that, while the nature of mistakes did not differ greatly across the two contexts, there were significantly more mistake management interactions in the Italian classrooms, and these were more likely to be conducted publicly than in the US classrooms. In both places, the most common strategies were for the teacher to supply the correct answer or to provide a hint to the student. Santagata offers a number of explanations for the detailed findings of the practices—the influence of Behaviourism on US teachers, long-standing organizational practices (such as seat work in US classrooms and blackboard activities in Italy), and the public/private traditions in handling student performance.

The comparison brings out the complexity of cultural influences that might otherwise pass unremarked. The title of a paper by Sigrid Blömeke and Lynn Paine (volume 24, issue 8, pp. 2027–2037), 'Getting the fish out of the water: Considering benefits and problems of doing research on teacher education at an international level' refers to a time-honoured justification for comparative education—that, just as a fish is unaware that it is swimming in water, we may not appreciate the contextual influences on our own beliefs and practices unless we are given insights into another context.

## 6. Discussion

Given the diversity of purposes, themes, methods and of findings displayed in the papers reviewed, comparative education can be considered as a field inhabited by scholars who bring tools and perspectives from other arenas but who choose to focus on educational issues in an explicitly comparative context. Lê Thành Khôi (quoted by Eliou, 1997, p. 113) argued that comparative education "is not strictly a discipline, but a field of study covering all the disciplines which serve to understand and explain education".

Indeed, many individuals and groups who carry out comparative education would hesitate to label themselves as comparativists, preferring to identify more strongly with their parent disciplines, and using comparative education research as a means to bring their findings into sharper relief through a conscious decision to use comparison and contrast.

Turning to the first question posed at the beginning of this review, namely "What is the value of the comparative approach?", Blömeke and Paine, in the paper mentioned above, cite Harold Noah:

Properly done, comparative education can deepen understanding of our own education and society; it can be of assistance to policymakers and administrators; and it can form a most valuable part of the education of teachers. Expressed another way, comparative education can help us understand better our own past, locate ourselves more exactly in the present, and discern a little more clearly what our educational future may be (Noah, 1986, p. 154).

Researchers engaging in international comparative research face the same issues that any social science researcher has to address. The research methods to be adopted in any study obviously depend on the *a priori* research perspective (evaluative, interpretative, investigative, critical, developmental, etc.); the aspect of education—the unit of analysis—that is to be compared; and the data that are available. Appropriate qualitative, quantitative or mixed methods have to be selected, and analysis needs to produce reliable and valid findings.

On top of this, comparison needs to be conducted in a way that allows new insights, interpretations or evaluations to emerge. There is a danger in comparative education of undertaking research that is fundamentally flawed. For example, comparing simply for the sake of rendering the study more exotic or basing the study on incompatible units of analysis would leave the researcher open to the charge of conducting pointless research. The use of comparative education research is only effective when the act of comparing can add extra dimensions to the study and units of comparison have sufficient in common to make comparison meaningful.

Care must be exercised in ensuring the comparison of like for like. For instance, in the comparison of German and Israeli kindergartens, Moin et al. were careful to ensure that both places had a common understanding of what constitutes a kindergarten. Other terms can also be false friends: 'middle school' for example, can be synonymous in some contexts to 'secondary school' and refer to a school bridging primary and secondary education in others. Likewise, researchers need to avoid over-generalisation. The paper by Young et al. does not compare the United Kingdom and Canada, as its focus is on systems of governance; instead it compares the specific systems of England, Manitoba and British Columbia. Researchers using international comparisons could also consider the extent to which concepts such as "Western" and "Asian" are sufficiently nuanced in studying cultural factors. As several papers in this review demonstrate—for example, Trumper et al.'s comparative study of Israeli and Argentinean elementary teachers' conceptions of energy-local contextual factors can outweigh macro cultural characteristics.

In sum, the value of comparative education lies in helping us to fulfil the purposes of research—to find out, explain, evaluate, critique, advocate and develop. Thus, comparative education research needs to be purposeful in the same way that teachers compare textbooks to choose the best for the course of study and parents compare schools to choose the most suitable for their child. It also needs to be sensitive to the multiple layers in which cultural influences operate.

There has been particular emphasis in recent decades on the practical application of comparative education research for the purpose of policymaking. The nature of comparative education research undertaken for this purpose can range from major international studies of student achievement such as PISA or TIMSS—the outcomes of which have led to much hand-wringing and despair in the corridors of power in many countries—to studies that seek solutions to particular problems in education, such as enhancing effective learning. This trend has engendered considerable debate around the degree to which transfer from one national context to another can take place without sensitive adaptation to ensure that the policy or practice in question is actually suited to the cultural contexts to which it is being transferred. An oft-quoted remark about the dangers of international transfer or borrowing comes from one of the great pioneers of comparative education, Sir Michael Sadler, who wrote in 1900 (reprinted 1964, p. 310) that:

We cannot wander at pleasure among the educational systems of the world, like a child strolling through a garden, and pick off a flower from one bush and some leaves from another, and then expect that if we stick what we have gathered into the soil at home, we shall have a living plant.

Academics are sometimes suspicious and dismissive of the way in which policymakers have harnessed comparative education research to their own particular ends. They fear that the actual agenda of policymakers is excessively governed by ideology—some of the requisite theoretical rigour has tended to be lacking, especially when a veneer of educational respectability is being applied to a covert political purpose—and that it is weak in design, execution and interpretation. The cynicism of academics arises from the way in which potentially useful comparative education research, such as PISA and TIMSS, can be distorted in the creation of international "league tables" that tend to oversimplify or completely ignore the fine-grained local contextual factors that have a major influence on student performance. The cynicism, however, is mutual: policymakers often appear to be equally dissatisfied with the work of academics, especially when it fails to produce practical solutions to educational problems.

How can this uneasy tension between the theory and application of comparative education research be overcome? One way forward would be for academics and policymakers to agree on a common purpose. Collaboration between both groups could focus on addressing issues of major international concern, such as those set out in the Millennium Development Goals, which were announced in 2000 and which included achievement of universal primary education by 2015, and the complementary targets of Education for All. It is clear that globalisation and the commodification of education have not been in the best interests of all sectors of society. Social justice may provide a rallying point for concerted efforts involving academics and policymakers, and would imbue international comparisons with a strong values-based mission. Such an orientation would reassure many researchers who are concerned that comparative education has been hijacked for the promotion of education policies with which they have little sympathy. The concentration of such efforts could begin in our own backyard—comparative education is very much about the betterment of our own society rather than the somewhat patronising or hegemonic imposition of our own policies and practices on other societies. An ameliorative mission for comparative education would reflect and extend the sentiments expressed by Sadler (1900, reprinted 1964, p. 312), that:

If we study foreign systems of education thoroughly and sympathetically — and sympathy and thoroughness are both necessary for the task — I believe that the result on our minds will be to make us prize, as we have never prized before, the good things which we have at home, and also to make

us realise how many things there are in our [own education systems] which need prompt and searching change.

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