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Editorial

Carol Mutch, PhD, Education Review Office, New Zealand

This is the final issue of Pacific-Asian Education that I will prepare as editor. It has been an interesting and sometimes challenging task to solicit, review, edit and publish high quality articles in a timely manner that reflect the variety of topics, disciplines, research methods, educational settings and countries that are of interest to our readers and members of the Pacific Circle Consortium. As each issue comes to fruition, however, the satisfaction of bringing the research findings, practical experiences and theoretical deliberations of scholars and practitioners from the countries that are within or border the Pacific Rim to the attention of the wider world has made it all worthwhile. Too often the voices and experiences of larger, more powerful and highly developed Western nations are those that dominate the intellectual landscape. During my term as editor, Pacific-Asian Education has included voices from Hong Kong, China, India, Malaysia, Singapore, Thailand, Korea, Viet Nam, Samoa, Fiji, Yap, Palau, Seychelles and Mexico, as well as Australia, New Zealand and the US. This issue is no exception as we examine, for example, the experiences of Indian teachers in New Zealand, consider science in the Seychelles curriculum, civic education in Hong Kong, and higher education and employment in Mexico and Thailand.

The theme of challenge runs through all these articles. One challenge is to perceptions. Shoba Nayar uses the voices of immigrant teachers to highlight the discrimination they face in their new homeland. Through their eyes we come to see the subtle (and not so subtle) ways that this discrimination plays out. Alexis Siteine and Tanya Wendt Samu challenge the perceptions that teachers, curriculum designers and educational resource publishers have of the Pacific. The framework they provide is one that could be applied to the way we envisage and represent other cultures in our curricula – are our lenses stereotypically historical, geographical or tourist-like or do we present real people with rich and complex lives? In challenging their teacher education students to examine their assumptions and prejudices, Vanessa Andreotti, Jae Major and Margaret Giroux also offer a challenge to other educators to consider how thinking in ways needed for 21st century learning might change our approaches to teaching.

Another challenge expressed in these articles is to rhetoric. Rosianna Jules and Lindsey Conner examine the science curriculum in the Seychelles to investigate the mismatch between what the policy intends and what is possible to achieve. By comparing the Seychelles curriculum with that of another country, in this case New Zealand, the missed opportunity to explore the complexity of the nature of science and scientific thinking is highlighted. Ernesto Rangel, Antonina Ivanova and Baerbel Singer also investigate policy gaps, this time in the links between higher education and the labour market. They also compare the way two different countries, Mexico and Thailand, have responded to the issues raised by globalisation and preparation for the future. Finally, Yan Wing Leung and Wai Wa Yuen hold policy documents up to critique in their historical analysis of civic education in Hong Kong and the current Liberal Studies curriculum. Will the aims of the new policy be borne out in practice?

These are challenges that face us all and I thank these scholars and practitioners for bringing their research conclusions and narratives to our attention.

This issue of Pacific-Asian Education also pays tribute to one of our Pacific Circle Consortium members who passed away in 2009. The comments that follow the editorial are from Professor
Christine Halse, one of Emeritus Professor Neil Baumgart’s close colleagues. I would like to add my personal thanks to Neil for the way in which he mentored and encouraged me to take an active role on the PCC executive. I will always hold him in high esteem. He modelled integrity, professionalism and insight.

This final editorial gives me the opportunity to thank the many people who make the Pacific-Asian Education journal possible – members of the Pacific Circle Consortium, the Executive Committee, authors, reviewers, editorial assistants, guest editors and the Editorial Board. I will now hand over the reins of editorship to my colleagues at the University of Auckland, New Zealand, to continue this exciting and worthwhile work.

Ko te pae tawhiti whaia kia tata;  
Ko te pae tata whakamaua kia tina

Seek out distant horizons and cherish those you attain  
(Māori Proverb)

Carol Mutch  
Editor  
Pacific-Asian Education  
March, 2010

Tribute to Neil Baumgart

Emeritus Professor Neil Baumgart passed away on 30 June 2009, after an illness of several months.

Neil played a formative leadership role at University of Western Sydney (UWS) as the Foundation Professor of Education at UWS, Nepean, during which time he also served as the Dean of the Faculty of Education and Acting Deputy Vice-President of UWS Nepean.

Neil was an internationally renowned expert in assessment and evaluation who had a deep and unerring belief in the capacity of education to improve people's lives and worlds. He practised this commitment throughout his academic life and after he retired from UWS (1998), during which time he spent 10 years working as an advisor and consultant for the World Bank, AUSaid and other international organisations helping to build the education systems of developing countries in Asia and the Pacific.

Neil was deeply committed to nurturing the scholarship and research capacity of others, particularly post-graduate students. As a beginning academic at Macquarie University, Neil worked with Colombo Plan students and UWS built a strong cadre of international doctoral students, the majority of whom went on to take up senior roles in education in their own countries.
Neil believed in learning by doing and, as Foundation Professor of Education, he made a point of establishing research projects to give research training to his colleagues. Neil provided many of the professors in universities and research institutes around Australia today with their induction into educational research, tackling this task with intense intellectual discipline and rigour, boundless energy for work, and a teacher's patience for those willing to learn.

Neil was an innovator. Some of the initiatives resulting from his leadership included the establishment of the Faculty's first international program (BEd, Maldives) and the UWS EdD, a program that has been acclaimed as exemplifying a new generation of professional doctorates. Neil encouraged UWS involvement with the Pacific Circle Consortium (PCC) and the NSW Institute of Education, and staff from the School of Education have continued this affiliation and work. Neil was to serve a term as Chair of the Pacific Circle Consortium, another as editor of the *Pacific-Asian Education* journal and he received the PCC’s Peter Brice Award in 2002 for his work in intercultural understanding.

Neil's enthusiasm, commitment and disciplined scholarship touched all who knew and worked with him. He will be sorely missed and fondly remembered.

*Professor Christine Halse*

*Director, Centre for Educational Research*

*University of Western Sydney*

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Photo: Professor Neil Baumgart (left) with Carol Mutch (New Zealand), Frank Pottenger and the late Art King (Hawaii) and Byoung Sun Kwak (Korea) at the 2002 Pacific Circle Conference in Sydney, Australia.
Immigrant teachers' experiences of racial discrimination

Shoba Nayar, Auckland University of Technology, New Zealand

Abstract

Discrimination in the workplace, on racial grounds, is an issue of concern for many immigrants entering a new country. Within the education literature the issue of racism, as experienced by teachers at the hands of their colleagues and the educational institution, is difficult to locate. Papers addressing this topic tend to focus on the needs of the children and racism within the classroom, as opposed to the experiences of immigrant teachers – that is, what occurs during the recruitment process and in the staffroom. This article is part of a larger qualitative study that explores Indian immigrant women’s experience of settling in New Zealand. Drawing on five participants’ experiences of gaining employment as teachers in New Zealand, the findings raise questions regarding the issue of racial discrimination in the New Zealand education system. The implications of not addressing racial discrimination within the New Zealand education system are discussed.

Introduction

Contemporary New Zealand society is characterised by immigrants, including people from Asia, who constitute the second largest immigrant population in New Zealand. Within the Asian population, the Indian community comprises the second largest group, one which continues to expand in both numbers and diversity. The latest figures taken from the 2006 Census of Population and Dwellings indicate that there are 104,583 people identifying as belonging to an Indian ethnic group living in New Zealand (Statistics New Zealand, 2008). This figure has risen from the 2001 Census of 61,803, a growth of 68.2% (Statistics New Zealand, 2008). Furthermore, in the 2006 Census, India ranked number five out of nine of the most common overseas birth places of people currently living in New Zealand, a rise of four places (Statistics New Zealand, 2008).

In part, the growth of skilled Indian immigrants to New Zealand was facilitated by the introduction of the 1987 Immigration Act which signified a shift in government thinking, whereby immigrants were selected on the basis of personal merit rather than national or ethnic origin (Brooking & Rabel, 1995). One of the underlying reasons for this change was the need to select immigrants who could fill high demand gaps in the workforce, such as the medical and legal professions, and contribute to the growth of the economy over a long-term period. Three years later, in 1990, the immigration policy was again reviewed and, in 1991, legislation was developed that clarified how potential immigrants would be selected. A points system based on criteria delineating personal merit, such as age, employability, educational qualifications and settlement funds was introduced. Today this points system forms the foundation of New Zealand’s immigration policy.
One of the strengths of current immigration policy is the transparent process for selecting skilled immigrants based on clear criteria, a selection process that is “responsive to demand pressures allowing for more stability and predictability in the inflow of new immigrants” (Glass, 2004, p. 4). Yet, despite this obvious improvement, there are still some weaknesses in the current immigration policy. For instance, the settlement policy is not currently embedded into the immigration policy. Simply having a process of selecting skilled immigrants does not ensure the success of their transition and settlement into New Zealand society. Glass (2004) contended that, “there is evidence that immigrants are highly skilled, but also suffer high unemployment (and possibly high-underemployment) rates” (p. 4). This finding is echoed in Pio’s (2008) research on Indian women working in New Zealand and other studies that document the experience of immigrants seeking employment (Abbott, Wong, Williams & Young., 1999; Ethnic Affairs Service, 1996; Oliver, 2000).

High unemployment may be due to the fact that, on arrival, many immigrants find that their qualifications are not accepted, entailing further training or, in some instances, retraining in a new field of work (Ethnic Affairs Service, 1996). Alternatively, difficulty with obtaining employment may be the result of racial discrimination. In a 2005 survey of skilled immigrants, just over 20% of respondents reported difficulty in getting work in New Zealand due to discrimination as an immigrant and 25% felt that their skills or experience were not accepted by New Zealand employers (Department of Labour, 2006). These percentages are significant and draw attention to the prevalence of racism in the workforce. However, the idea of openly discussing issues of racism can be likened to the ‘elephant in the room’; more often than not, it is considered too big or too difficult a subject to tackle. Yet, it is always present.

This article explores the notion of racial discrimination within the New Zealand education system as perceived by five Indian immigrant women seeking employment as teachers in New Zealand. Their stories are part of a larger qualitative study that explored the everyday activities of Indian immigrant women settling in this country, within which the issue of racial discrimination emerged as a significant factor warranting exploration.

**Review of the literature**

Literature addressing the topic of racial discrimination in the workplace for immigrant teachers was difficult to locate. Indeed, the research into racism, cultural difference and multiculturalism within the European, American and Australian education settings has largely focussed on the experiences of students rather than teachers of ethnic difference (Kohli, 2008; Mansouri & Kamp, 2007; Santoro, Kamler & Reid, 2001; Stevens, 2008).

Two studies in Australia have directly explored the issue of racism as experienced by immigrant teachers (David, 1993; Santoro, Kamler & Reid, 2001). In these studies it was revealed that immigrant teachers experience racism at both the institutional and the personal level. At an institutional level, migrant and ethnic minority teachers potentially encounter organisational cultural insensitivity leading to an experience of racism which erases individual variability and complexity. Racism, in this sense, is enacted through the belief that all immigrants are the same, perhaps, in terms of language ability, knowledge of the local systems and teaching practices. At a personal
level, there have been reports of exclusion from formal and informal social interactions and mainstream professional interactions.

Although Henze, Lucas & Scott (1998) have argued that within the profession of education, in the United States, issues of racism and ethnocentrism have been silenced, in their discussion, the authors revert back to considering racism as enacted through the classroom dynamic between teacher and student. There is no consideration of how racism reveals itself between teacher and teacher, or teacher and the wider educational institution. Further, the lack of research directly addressing racial discrimination within the workplace, particularly for immigrant teachers, may be due to the fact that teachers themselves are often reluctant to openly discuss power, racism, and white privilege with colleagues (Grant, 1989; Haberman, 1991; King, 1991; King & Ladson-Billings, 1990; Zeichner, 1992). The systematic silencing of racial discrimination within the education system has meant that teachers have lacked the opportunity to openly examine and discuss issues of racism (Henze et al., 1998), which is reflected in the paucity of literature directly addressing this topic.

Overall, a recurring theme in the literature has been the teachers' feelings of professional, social and cultural alienation and isolation (Basica, 1996; Court, 1999; Kamler, Santoro & Reid, 1998; Madsen & Mabokela, 2000; Meacham, 2000; Overberg, 1976). Although the studies do not always directly attribute these feelings to experiences of racial discrimination within the education setting, the question of racial discrimination within the workplace is nevertheless a significant issue.

**National perspective**

In line with the international situation, the New Zealand literature reveals very little research evidence to support the anecdotal stories of racial discrimination that immigrant teachers encounter when seeking employment in this country. However, a review of popular media, including newspapers and websites, acknowledges the difficulties that immigrant teachers have with obtaining employment in New Zealand.

In March 2007, one of the country's leading national papers - the New Zealand Herald - published an article entitled *Workplace discrimination on the rise*. The article highlighted a 2006 report, released by the Human Rights Commission, which showed workplace complaints made up 20% of race-related complaints, up from 16% in 2005. The article specifically cited the example of a Russian teacher who was refused a job on the grounds that she lacked local experience (NZPA, 2007). Further, the results of a recent New Zealand schools survey, published on the TeachNZ website (TeachNZ, 2010), indicate that overseas teachers being offered positions are generally from Canada, the United Kingdom, Ireland, Australia and South Africa. The reasons given by schools for employing teachers from these countries as opposed to Asian countries include the similarity of the curriculum and teacher education in those countries and the high level of written and oral English language required to teach effectively in New Zealand classrooms. There seems to be an unspoken assumption by employers that immigrant teachers from other countries have a poorer level of written and oral English, or below standard level of education and experience.
Correspondence with the New Zealand Teachers Council reveals that they receive approximately 1500 applications from overseas teachers each year (personal communication, May, 2009). In order to obtain registration with the New Zealand Teachers Council, immigrant teachers are required to show certified proof of their qualifications. Thus, in being granted registration to work as a teacher in this country, it is acknowledged that their training and knowledge are of a standard that is equivalent to and can be transferred into the New Zealand education system. Given this number, the issue of racial discrimination as perceived by immigrant teachers is an issue that the education sector cannot afford to ignore.

Both the international and national literature reveals that the issue of racism has been acknowledged in the education sector. Yet, there is little research exploring how racism is experienced amongst teachers within the workplace. The purpose of this article is to shed light on the experiences of a group of Indian immigrant women and their encounters of racial discrimination during the recruitment process and in the staffroom of New Zealand schools.

**Methodology and methods**

This study employed a grounded theory methodology. Situated within the interpretive qualitative paradigm, grounded theory is useful in exploring the way people attach meaning to events in their lives (Grant & Giddings, 2002; Strauss, 1987). The overall aim of this study was to explore how Indian immigrant women engaged in everyday activities that ultimately facilitated, or hindered, their settlement in New Zealand.

In total, 25 Indian women, who had immigrated to New Zealand directly from India, participated in the larger study. Of these 25, the majority were tertiary educated, including five women who held teaching qualifications. It is the experiences of these five women that are uncovered in this article. The five women were aged between 26-65 years and had immigrated during the years 1995 to 2001. At the time of the study, they were all currently employed and residing in Auckland.

Data were gathered through in-depth conversations and participant observations that were carried out as the women performed everyday activities, such as attending work. Theoretical sampling, a hallmark of grounded theory methodology, with constant comparative analysis was used to guide both data collection and data analysis. Interview transcripts were analysed line by line to identify codes. These codes were then grouped into categories and the relationships between categories examined using dimensional analysis (Schatzman, 1991). From this analysis, the category ‘Perceptions of Self and Others’ emerged.

‘Perceptions of self’ were related to how the women viewed themselves in terms of their personality, skills and abilities. Perceptions of others was the women’s interpretation of the way other people, including family and members of the New Zealand and Indian communities, responded to them. These perceptions both facilitated and challenged the women’s experiences of engaging in everyday activities, including employment, in a new country.
Findings

The issue of racial discrimination as experienced by Indian immigrant women when seeking entry to the workforce, and within the school environment, revealed itself in this category. The following section discusses some of the findings arising from this study in relation to the five Indian immigrant teachers - Nina, Manju, Maria, Anaia and Jean - and their perceptions of racial discrimination in the workplace. Nina, Manju and Maria were all secondary school teachers and had been teaching, on average, for 16 years. Anaia had 20 years experience and was a primary school teacher. Jean had approximately 25 years experience and was working as a relief teacher across both primary and secondary schools. The findings are highlighted by the use of participant quotes.

The job interview

Anaia found the act of getting called for an interview, in itself, a difficult process. Before she even had a chance to prove herself she faced the obstacle of requiring New Zealand experience. ―I couldn’t get a full time job, it was very, very difficult. First thing they say, you have no experience, like New Zealand experience! Though I was teaching in India for almost ten years‖ (Anaia). Nina had similar experiences and found that when eventually she was offered a job interview, the questions put to her only served to reinforce her perceptions of racism.

I’ve been asked questions at job interviews, how can we, your English is so correct, and your accent is so different, how can we be so sure you will talk to your learners rather than talk down to them. That’s a question I have been asked. And the second question is, you’re an Indian with no New Zealand experience, give me one good reason why I should hire you… these are the questions you get, you are not local, how do we know you have the skills due for the job and you did not study [subject] in New Zealand, how can we be sure that the [subject] that you’ve studied in India, would prepare you adequately to be a [subject] teacher in New Zealand? And this was asked by, very experienced teachers in the education line, who subscribed to learning and multiculturalism and biculturalism. (Nina)

Nina’s comments reinforce the idea that, without New Zealand experience, immigrant teachers face a tough task trying to convince an interview panel they are qualified for the job.

Jean related her experience of job seeking and, as a reliever, getting called to work at a school predominantly attended by white, middle-upper class students.

I have been to a few schools, in central Auckland, and there you can really feel the discrimination. Schools in central Auckland, most of the teachers are white, the permanent teachers and they don’t even bother to even acknowledge you. Like you get the feeling _Oh she’s come from India what does she know’, that sort of thing and you say you’ve done your master’s and all they think _Oh, she did it in India’, you get that sort of feeling. Very subtle.
I was shocked when they said that they couldn’t get anybody so they sent me once to a couple of schools in central Auckland and from the name the principal expected to see a white person or Spanish or something like that. They’d look at me and say ‘Are you Jean?’ I’d say yes. ‘Oh okay you have to go to the staff room’ but you could, from the body language and all you knew that he was expecting someone different. And I never got called there again, I never got called there again. (Jean)

While it cannot be assumed that the Principal’s actions were in response to Jean’s physical appearance as an Indian woman, this story revealed that Jean’s perceptions of the Principal’s actions were enough to make her feel excluded from the school community. In addition to other’s actions, Nina found that another obstacle in the job interview centred on the accent, which would always mark her as someone different, an outsider.

But when you come across as a new migrant woman who’s just come, I mean not new, 7 years round, speaking with a different accent but absolutely fluent with the language, you’re perceived in not, not everybody does this, I’m not generalising, there’s some pretty neat teachers out there, but you are generally perceived to be an upstart. (Nina)

The issue of language, as a focus for perceptions of racial discrimination, carried through from the job-seeking and initial interview processes into the staff room.

Within the workplace

As with Nina, in the quote above, Anaia and Manju also perceived racism, as expressed in the attitude of their colleagues in relation to the use of language. Like Nina, Anaia is fluent in speaking English, yet, she perceived that others around her had difficulty understanding her.

In the beginning I used to speak like you know, though I used to speak normal English, they used to say you’re speaking too fast because they can’t, you know have to learn to speak little bit different, not really like that fast Indian way. (Anaia)

For Manju, it was the constant questioning of where she had learned to speak such good English and the surprise of her colleagues which —used to annoy me and I used to think no, no of course I speak good English… and I had to always say no, no we learned English” (Manju).

For some women, racism manifested itself in a silence and a stereotyping of what Indians are capable of doing. When Maria moved from Auckland to Napier and started work at a local school, she immediately felt that her opinions and skills were not recognised.

Because my school, in all the four years, couldn’t identify, couldn’t take this Indian women playing Western music on the piano. It didn’t seem, they never ever asked me to play. But I did at church and that was fine... But there, they would sing without a pianist at assemblies but they would never ask me, because they didn’t ever think that
I would be able to do it, you know. And even if I said, I’m able to do it, they just didn’t ask me, it was as if, it was not possible. And that was probably the Indian thing. That and it bugged me, it really bugged me it’s like, you know, that was a closed, there are some areas I didn’t even think I could go. (Maria)

Maria attributed the lack of acknowledgement to being Indian, a foreigner.

I think it was a preconceived notion that I might not be able to cope because I wouldn’t understand the kids and I wouldn’t understand the work environment and I think, because I’m Indian. Because I’m a foreigner, it’s not just because I’m Indian. (Maria)

While for Maria, it was the lack of words which shaped her perceptions of racism, Nina’s experiences of racial discrimination were played out in the use of words and the use of culture.

Culture could be used as a weapon by a lot of them where I happened to lean against a desk when they said, excuse me in New Zealand culture you cannot put your bum on a place that you’re eating from. So, you know, I often found that people had the slightest opportunity they would jump… Again I’d like to point out, over here is the way it was told to me, and the way it was brought across was a total lack of understanding of a challenge faced by a migrant woman who’s adapting to a new culture and a new climate. They expect you to get everything right the first time and I’m sorry, my point is no, you never get anything right the first time. (Nina)

As a result of such perceptions, the women found themselves fighting to gain acceptance in what was a difficult work environment. Difficult not because they did not have the skills or knowledge to complete the task; rather, difficult because they were unable to form relationships with colleagues from whom they could seek support and assistance with settling into a new job, in an unfamiliar country. For Maria, the lack of acceptance meant that going into work each day was an isolating experience.

I struggled because it was just very difficult. I just felt, not accepted by my workmates. And in this school I felt that I was just looked upon as not measuring up or, you know not able to cope… It was their lack of acceptance of me in many ways. My opinions on things that were being organised was not taken into consideration nor accepted. If I suggested something, they wouldn’t acknowledge it, they wouldn’t be aware of it, it was, I just wasn’t regarded, given the regard that I should have got. (Maria)

By not having her opinions considered or accepted, Maria was made to feel invisible and not included by her colleagues. Anaia, too, had the experience of not being included by her colleagues, unless she made the first attempt.
I most often generally initiate the discussions. Yeah because, when I go relieving and all it’s a new place, there nobody knows me. So wherever I’m sitting I’ll try and talk. Then of course they respond. But then I take, I must make the effort. (Anaia)

Although the women were keen to respond to perceptions of racial discrimination, and be seen as contributing members of staff, more often than not, even social conversations at lunch time in the staffroom were a fraught experience, with little connection. Jean offers an explanation for why she found it hard to mix with the “Kiwis, and the Britishers and the white people”.

I think it is cultural because they have the same, cultural and traditional values as we have… We Indians we talk so much about our families, our children, what they are doing and our husbands but you get the feeling that the white people don’t like anyone to probe into their life. They don’t want to be asked about husbands and where they are working and children, what they are doing. They sort of clam up when we talk about that. They talk about school and what did you teach today and how did you do this, or where did you go shopping, where did you buy that outfit, but when it comes to talking about personal things, they sort of shy away. (Jean)

Jean’s explanation for the difficult relations she has with her colleagues highlights the differences in cultural attitudes and values which can be perceived as a disconnection.

For some women, the disconnection that arose in response to others’ words and actions was framed as racism. The participants stated that their experience of racism was subtle, yet their interactions with others at times left them feeling unaccepted, stereotyped and unable to break into what appeared to be established ways. As Jean commented, “they don’t say anything to your face, but you can feel it, you can feel it, you know”. This feeling, or perception of racism, was constantly present with the women throughout the process of applying for, and being granted, a job interview and, if successful, commencing work within the school.

Discussion

The findings presented here highlight how, as trained and qualified teachers, the women in this study all experienced what they regarded to be racial discrimination, both when seeking employment and when offered a job within the workplace. Although the women who participated in the study are a select few, their experiences nevertheless raise questions regarding how racial discrimination is conceived and dealt with, within the New Zealand education setting.

As highlighted in the literature review, there is little discussion about racism in the education literature, particularly in regards to immigrant teachers’ interactions with other teachers or employers or the educational administration. That is not to say that racial discrimination does not exist; rather, that it is an embedded practice with subtle manifestations. For instance, in the scenario of applying for a job, the discourse is related to cultural competence or lack of it, and/or a lack of local knowledge and experience. Ultimately, these questions of competence and knowledge act as a smoke-screen for racism and provide a path for deflecting immigrant teachers who are not
considered suitable for the position, despite their qualifications and experience in their home country.

Using language that shields the overt expression of racial discrimination does not negate the fact that the Indian immigrant women in this study still perceived that they were disadvantaged as a result of their culture and immigrant status. The continued use of such language, both verbal and nonverbal, which creates a perception of disconnection, has two potentially significant ramifications for the New Zealand education system. First, through the loss of knowledge and skills that immigrant teachers have to contribute to curriculum development and second, through the loss of role-modelling that these teachers can offer students.

As indicated earlier in this paper, immigrant teachers are required to obtain registration with the New Zealand Teachers Council before practising in New Zealand. Yet, time and again many immigrants are faced with the question, "You have no New Zealand experience, why should I hire you?" Rather than considering what immigrant teachers perhaps lack in terms of knowledge regarding the culture of the system and society, perhaps thinking needs to shift towards, "What could potentially be gained from having another perspective?" By not employing immigrant teachers, schools potentially lose out on discovering new ways in which to deliver material and new knowledge which could be integrated into the curriculum in order to enhance student learning. Student education should be about all facets of learning, intellectual, emotional, social, and physical, and immigrant teachers bring skills which they can contribute across all these dimensions.

The notion of role modelling and the benefits of having immigrant teachers working with an increasingly ethnically diverse student population have been highlighted in the research (Asam & Cooper, 2000; Bascia, 1996; Chinn & Wong, 1992; Seah & Bishop, 2002; Su, Goldstein, Suzuki, & Kim, 1997). There is evidence to suggest that immigrant teachers can act as language and academic support providers for immigrant students. For the wider student population, their cultural and life experiences can be used to challenge and strengthen students' intellectual, social and emotional needs.

Countering the impact of racial discrimination is critical to ensuring that the New Zealand education system is not adversely affected through not employing immigrant teachers. Research into what systems are in place to support teachers in the workplace may shed light on what immigrant teachers need to feel accepted in the education system; for example, do such systems exist and/or are they not used, or do they need to be developed? Could a nationwide mentoring programme be developed that would allow immigrant teachers to gain experience in the New Zealand system? From a government perspective research might address the racial mix of teachers within the system. For example, given the high immigration of people from countries in Asia to New Zealand, having teachers from India, for example, will better reflect the changing population. Finally, within the specific institutional setting, equity representatives on interview panels should be present to facilitate a focus on what the prospective employee has to offer as opposed to what he or she lacks.
Summary

Racial discrimination has been, and continues to be, an issue for immigrants seeking employment. This article has explored the experiences of five Indian immigrant women who had obtained registration to work as teachers in New Zealand. Although the issue of racial discrimination is not widely addressed in the literature, the participants' stories, as used in this article, reveal that their attempts to find employment and build relationships with their colleagues were continuously hampered by what they perceived as a disconnection in the language (both verbal and non verbal) and actions of those already working in the system. While the practice of racial discrimination may be subtle, as the discussion highlights, such a practice can have negative consequences, both for immigrant teachers and the educational institution. Given the increasing numbers of immigrants settling in New Zealand, racial discrimination in the educational system is an issue that warrants further consideration.

References


Nature of science in *Science in the National Curriculum of Seychelles*: Recommended policy and practice changes

Rosianna Jules and Lindsey Conner, University of Canterbury, New Zealand

Abstract

Nature of science (NOS) is discussed as encapsulating the science education community’s consensus on ‗what science is‘. This is a fundamental component of science education. Document analysis of *Science in the National Curriculum* of Seychelles and *Seychelles National Curriculum Framework* reveals an under-representation of NOS. We argue that the nature of science should be a strong focus of science education in Seychelles because it will help people to increase their understanding of science and the practice of science.

Introduction

The scientific community and communities at large are becoming increasingly more aware of the tentative nature of scientific knowledge. Scientific methods and interpretations have their limitations. They are limited by the technologies we have available to observe the details of the nature of our world and beyond. Unfortunately many people are unaware of this tentative aspect of science, because often science is not made explicit in teaching and tends to be portrayed in the media as a ‗truth‘. For instance, for so long we have been led to believe that there were nine planets; recently we were told otherwise in the media. Currently, there is debate amongst professional astronomers as to whether Pluto is a planet or not, mainly because, in contrast with other objects considered as planets, Pluto has an erratic orbit. Because Pluto is described as a planet in millions of books, in different languages all over the world, many people still consider that it must be true. However, scientific knowledge changes quickly as technologies develop to allow us to observe our world differently or in more detail.

Many other examples of changes in thinking about our world could be cited here, including the first observations of sperm cells through a microscope and how they were interpreted as containing mini human life forms. Due to changes in microscope resolution and what we know about biases in interpretation, we now know this is not the case. These examples indicate that, as part of science education, people need to develop the understanding that knowledge, especially scientific knowledge, is tentative, temporal and based on interpretation. In the last three decades or so, a number of science educators and curriculum developers have discussed the need to incorporate aspects of the nature of science (NOS) in science education (Lederman & Niess, 1997; Mathews, 1998; McComas, Clough & Almazroa, 1998). While many places around the world, like New Zealand (Ministry of Education, 2007) and North Carolina (Department of Public Instruction, n.d.), have taken the initiative to include the strand —nature of science— in their school science curriculum, this strand is not present in *Science in the National Curriculum* (Ministry of Education, 2001a) of Seychelles.
This article presents a small-scale study about the Nature of Science in *Science in the National Curriculum* (Ministry of Education, 2001a) of Seychelles. This analysis is timely as the science curriculum in Seychelles will be reviewed in 2008. Even though the focus is on *Science in the National Curriculum* of Seychelles, the discussion here provides insights for curriculum developers, teacher educators and classroom teachers in other countries. The paper is in five parts. The first part characterises the societal context for *Science in the National Curriculum* of Seychelles by summarising the status of the science curriculum in Seychelles and tracing its history to the early 1970s. Next we present a selected literature review of aspects of NOS. In the third section we evaluate the present status of NOS in *Science in the National Curriculum* of Seychelles. We then make recommendations, propose suggestions for the inclusion of NOS in *Science in the National Curriculum* (Ministry of Education, 2001a) of Seychelles and discuss the implications. Finally we summarise the main points and assert that the inclusion of the NOS in the school science curriculum will help to provide students with experiences that enable them to understand science conceptually as well as the practice of science and its limitations.

**Setting the context: Science curricula in Seychelles**

Prior to 1972, science was taught only to the students studying at the Regina Mundi Convent and the Seychelles College. No other school in Seychelles was equipped to teach science. Between 1972 and 1976, the Department of Education made a decision to introduce science in the Junior Secondary Schools and set up a committee to adapt the Scottish science programme (National Institute of Education, n.d.). At the same time the 1972 Faure's Report *Learning to be: The world of education today and tomorrow* established that science should be included as part of the core and compulsory subjects for all in school curricula. Another major influence on the introduction of science for all in Seychelles is believed to have come soon after liberation in 1977 when a socialist government was established. The President declared that, “we have to teach the same subjects in all schools use the same books and make sure that all children get the same opportunities” (speech delivered by Mr. F.A. René, on June 29, 1977, cited in Ministry of Education, 1999, p. 5).

Following several science programmes and syllabi, subsequent education changes since the 1978 Education Reform, and the 1996/1997 review of the curriculum development process by the Curriculum Development Section (CDS), Seychelles current and first science curriculum document entitled *Science in the National Curriculum* was published in January 2001 alongside *Seychelles National Curriculum Framework* document. The curriculum is centrally planned (Purvis, 2004) with an emphasis on ‘core’ traditional academic subjects, that is, biology, chemistry and physics. The curriculum was developed by the five members of the Science Unit of CDS with ‘necessary support and background information’ from 12 science teachers who formed the ‘Primary and Secondary Science Subject Committee’ and others who participated in workshops (Ministry of Education, 2001a, p. ii). *Science in the National Curriculum* was progressively implemented in 2002 and, as mentioned earlier, is due for review in 2008 (E. Gedeon, personal communication, June 20, 2007). Gedeon explained that the science curriculum has been supported by on-going development and review of a set of programmes of study (POS) since 2001.

*Science in the National Curriculum* is designed for all State schools and is organised in six progressive achievement levels as follows: three primary cycles (Cycle 1 – Crèche - P2; Cycle 2 – P3 - P4; and Cycle
3 – P5 - P6); and two secondary cycles (Cycle 4 – S1 - S2; and Cycle 5 – S3 - S4). The medium of instruction for science in Cycle 1 is Creole\textsuperscript{5} and from Cycle 2 English is used.

School science in Seychelles and elsewhere has multiple aims. One of the goals of the science curriculum in Seychelles is a hegemonic agenda which assumes that the acquisition of scientific knowledge, skills, and values will help students to become increasingly confident and scientifically literate citizens capable of contributing to sustainable environmental, social and economic development through informed decision-making (Ministry of Education, 2001a).

According to the Ministry of Education (2001a):

Science is essentially an active and continuous process of exploration of the physical and biological aspects of the universe. It comprises a body of knowledge and theories, which provide a framework of concepts that, enable human beings to better understand the world around them. (p.1)

The description of science provided by the Ministry of Education (2001a) acknowledges science both as a process and a product. However, the view of science as a ‘body of knowledge and theories’, where the theories, laws, principles, concepts and facts found in biology, chemistry and physics textbooks tend to be presented as given ‘truths’, does not reflect the multiple aspects of the nature of science, particularly the tentative nature of knowledge. This perception of science and scientific knowledge as final ‘truth’ reflects a relatively narrow view of the nature of science. In contrast, the New Zealand resource website for teachers (\textit{Te Kete Ipurangi}) is very explicit that the nature of science is based on science as a human activity rather than science as a body of knowledge. Their NOS is provided as a number of themes (see Appendix 1).

\textbf{Nature of science (NOS)}

Internationally, the phrase ‘nature of science’ has multiple interpretations advanced by science educators, philosophers, historians, and scientists (Abd-El-Khalick, Bell & Lederman, 1998; Clough, 2007; Lederman & Niess, 1997; Mathews, 1994; McComas et al., 1998). However, there is a common understanding that the phrase ‘nature of science’ generally refers to —the epistemology of science, science as a way of knowing, or the values and beliefs inherent to scientific knowledge or the development of scientific knowledge” (Lederman, 2004, p. 303). In general, as succinctly put by McComas et al. (1998), —nature of science describes how science functions” (p. 5).

Science educators, according to McComas et al. (1998), portray NOS as —the intersection of issues addressed by the philosophy, history, sociology and psychology of science as they apply to and potentially impact science teaching and learning” (p. 5). For us, the phrase ‘nature of science’ refers to the —characteristics of science and scientific knowledge” (Lederman & Niess, 1997, p. 1) as informed by the philosophy, history, sociology, and psychology of science (Clough, 2007; McComas et al., 1998).
From their study, *The nature of science in international science education standards documents*, McComas & Olson, (1998) concluded that the philosophy of science provides a broad view of philosophical assumptions underlying the nature of science such as the tentative character of knowledge, what science is and how it works. The history of science refers to ‘science as a social tradition’ encompassing ideas, such as, the impact that social and historical contexts have on the development of scientific ideas and the global implications of science. The sociology of science relates to how scientists are and how they work - for example, the ethical decision making of scientific peer review and the accuracy of their record keeping. The psychology of science, on the other hand, focuses on the characteristics of scientists, like their creativity and openness to new ideas (McComas & Olson, 1998, pp. 49-51). While all four disciplines are crucial to our understanding of scientific knowledge and the scientific community, the greatest influences come from the philosophy and history of science (McComas & Olson, 1998).

**The status of nature of science in Science in the National Curriculum of Seychelles**

**Description of the study**

The strand ‘nature of science’ is not present in the science curriculum in Seychelles. In this study, document analysis was used to find out whether NOS is represented in other ways in the *Science in the National Curriculum* (SNC) (Ministry of Education, 2001a) and the *Seychelles National Curriculum Framework* (SNCF) (Ministry of Education, 2001b) documents. In the SNCF, the analysis was limited to the description of science and rationale for science education on page 10 of the document (Ministry of Education, 2001b) while in the SNC document, the study was limited to the introduction (p. 1), the rationale and the aims (p. 2), and the general objectives for the three domains: knowledge, skills and attitudes (pp. 3-6) (Ministry of Education, 2001a). These sections were used because they are the sections that present information about science and science education in Seychelles.

The matrix designed by McComas and Olson (1998) for their review of ‘a number of leading science education standards documents for their recommendations relative to the nature of science’ (p. 41), was used for this study. Each section of the documents was analysed by sentence or statement and matched to relevant statements and assumptions about science and the nature of science from McComas and Olson's (1998) study. McComas and Olson's statements and assumptions were grouped into these four categories: philosophy insights, statements and assumptions; sociological insights, statements and assumptions; psychological insights, statements and assumptions; and historical statements and assumptions. Consistent with the same approach used by McComas and Olson (1998), a statement from the SNC document or the SNCF document was recorded as `a match’ as long as it expressed, reflected or implied the central idea of the statement(s) advanced by McComas and Olson (1998).

Some examples of how the sentences or statements were recorded as a match are given below:

1. ‘...develop an understanding of the changing nature of science, and the assumption on which it rests” from the SNCF (Ministry of Education 2001b, p. 10) was matched to statement 2— *scientific knowledge is tentative* in the *philosophy insights, statements and assumptions* category.
2. —Science is essentially an active and continuous process of exploration‖ from the SNC (Ministry of Education 2001a, p. 1) was recorded as a match to statement 3—science will never be finished in the philosophy insights, statements and assumptions category.

3. —...be ready to adjust or reject explanation‖ from the SNC (Ministry of Education 2001a, p. 6) was matched to statement 2—scientists must be open to new ideas in the psychological insights, statements and assumptions category.

4. —...make rational decisions on issues relating to wise use and good protection of local, national, global resources and environment . . .‖ from the SNC (Ministry of Education 2001a, p. 2) was matched to statement 5—science has global implications in the historical statements and assumptions category.

Sometimes an individual statement was matched to more than one statement from the same category. For example, the statement —...scientific accomplishments are the result of the efforts of women and men from diverse races and cultures‖ from the SNC (Ministry of Education 2001b, p. 10) was matched to statement 1—all cultures (can) contribute to science and 2—science is a human endeavour in the sociological insights, statements and assumptions category.

Qualitative research acknowledges that the researcher as 'research instrument' influences the conduct of the study. The researcher influences the research design, the collection of data, the analysis and interpretation of the data (Bogdan & Biklen, 2003, 2007; Janesick 2003) because the ―researchers bring their own specific background to the study‖ (Bogdan & Biklen, 2007, p. 55). We acknowledge that this analysis was influenced by the first author's recent encounter with the philosophy and history of science. Another researcher sharing the same interest and with more experience may interpret the same data differently.

Findings

The findings of the study are displayed in Tables 1 to 4 according to the four categories: philosophy insights, statements and assumptions; sociological insights, statements and assumptions; psychological insights, statements and assumptions; and historical statements and assumptions respectively. An initial interpretation of the four tables of results reveals that many statements about the nature of science advanced by McComas and Olson (1998) were not represented in the two curriculum documents: Science in the National Curriculum (SNC); and Seychelles National Curriculum Framework (SNCF). The findings for each category of statements are presented below.

Philosophy insights, statements and assumptions
Table 1 shows the philosophy insights, statements and assumptions that were represented in the SNC and the SNCF documents. In this category only seven of the 18 statements were identifiable in the SNC and the SNCF documents. Of the seven statements, only two: statement 8—science aims to be testable, and statement 18, which claims that vocabulary (namely observation, hypothesis and theory) is important to learn about how science works, were expressed in both curriculum documents.
Table 1: The philosophy insights, statements and assumptions represented in the SNC and the SNCF documents

<table>
<thead>
<tr>
<th>Philosophy insights, Statements and Assumptions</th>
<th>SNC</th>
<th>SNCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Scientific knowledge is stable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Scientific knowledge is tentative</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>3. Science will never be finished</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>4. Science relies on empirical evidence</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>5. Science relies on logical arguments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Science relies on scepticism</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>7. Science aims to be objective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Science aims to be testable</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9. Science aims to be consistent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Science aim to be precise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Science knowledge is based on observation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Science knowledge is based on experimental evidence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Science knowledge is based on careful analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Change in science results from information of better theories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. There are many ways to do scientific investigations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Science has inherent limitation</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>17. Science is an attempt to explain phenomena</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. To learn about how science operates, vocabulary is vital</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Observation</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Hypothesis</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Law</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theory</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Inference</strong></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Models</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: McComas and Olson, 1998, pp. 44-46)
Sociological insights, statements and assumptions
With regards to the sociology of science, as shown in Table 2, three of the statements (statements 1, 2 and 4) were represented in both the SNC and the SNCF documents.

Table 2: The sociological insights, statements and assumptions represented in the SNC and the SNCF documents

<table>
<thead>
<tr>
<th>Sociological insights, statements and assumptions</th>
<th>SNC</th>
<th>SCNCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All cultures (can) contribute to science</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. Science is a human endeavour</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3. New knowledge must be reported clearly and openly</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4. Scientists makes ethical decisions</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5a. Scientists require:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>accurate record keeping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5b. peer view</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5c. replicability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5d. truthful reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Scientists work collaboratively</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: McComas and Olson, 1998, p. 46)

Psychological insight, statements and assumptions
Table 3 shows that there were two out of the four statements in this category common to both documents. These were statement 2, which referred to the scientists’ openness to new ideas and statement 4, which dealt with the creativity of scientists.

Table 3: The psychological insights, statements and assumptions represented in the SNC and the SNCF documents

<table>
<thead>
<tr>
<th>Psychological insights, statements and assumptions</th>
<th>SNC</th>
<th>SCNCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Observation are theory-laden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Scientists must be open to new ideas</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3. Scientists must be intellectually honest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Scientists are creative</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

(Source: McComas and Olson, 1998, p. 47)
Historical statements and assumptions
As shown in Table 4, this category was rather under-represented in both the SNC and the SNCF documents; only two statements were represented: statement 5 — *science has global implications* was common to both documents, while statement 6 — *technology has impacted science* was relevant only to the SNC document.

Table 4: The historical statements and assumptions represented in the SNC and the SNCF documents

<table>
<thead>
<tr>
<th>Historical statements and assumptions</th>
<th>SNC</th>
<th>SNCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New specific ideas have frequently been rejected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The past eliminates current scientific practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3a. Change in science occurs gradually</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3b. Change in science occurs through revolution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4a. Science research are dictated by prevailing paradigms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4b. Science research is dictated by national and/or corporate interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Science has global implications</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. Technology has impacted science</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>7a. Science is part of intellectual tradition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7b. Science is part of social tradition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7c. Science is part of cultural tradition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Science has played an important role in technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Science has been in the centre of many controversies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Science ideas are affected by their social and historical milieu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Science builds on what has gone on before</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: McComas and Olson, 1998, pp. 47-48)

What is surprising is that the document analysis, as outlined above, revealed no explicit or direct statements about nature of science in the SNC and the SNCF documents. However, there were a few statements in the two documents which related to McComas and Olson’s (1998) list of statements about science and nature of science. It should be noted that none of the statements from the SNC and SNCF documents are worded exactly as those listed by McComas and Olson (1998). Moreover, statements from the SNC and the SNCF documents referring to the same statement from McComas and Olson’s (1998) list were worded differently. For instance: the statement from the SNC which reflected statement 4—
scientists are creative from the psychological insight, statements and assumptions category read as —. . utilise and value their capacities for creative and critical thinking” (Ministry of Education, 2001a, p. 6) while that from the SNCF document stated that —ti[science] . . . promotes creative thinking” (Ministry of Education, 2001b, p. 10).

Analysis and discussion

The findings reveal that statements about nature of science were not well represented in the SNC and the SNCF documents. The philosophy and history of science, which are the most influential disciplines in our understanding of scientific knowledge and the scientific community (McComas and Olson, 1998), were the least represented in the two curriculum documents. Their under-representation in the Science in the National Curriculum document is of major concern because it is this document which guides the teaching and learning of science.

The findings also showed that there were disparities in the way the information regarding science and science education in the SNC and the SNCF documents related to aspects of nature of science. The discrepancies are probably because, as mentioned earlier, the two curriculum documents were both published in January 2001 and designed by two different teams of people.

In general, as shown in the four tables, the nature of science is under-represented in the SNC and the SNCF documents. Consequently, based on the findings and arguments presented, we would suggest the inclusion of the nature of science in Science in the National Curriculum of Seychelles in order to provide students with a more authentic experience of science.

Proponents of the current curriculum could argue that the present science curriculum encourages first-hand experiences and the development of science process skills and, as such, it is promoting the nature of science. To gain or ascertain scientific knowledge, an understanding of the processes of science is an essential component of the SNC of Seychelles. Consequently, students are taught about the _scientific method_ and the _science process skills_ such as observing, predicting, hypothesising, measuring, collecting and recording data, controlling variables, communicating, analysing and interpreting, among others, (Ministry of Education, 2001a). However, it should be clear that this mantra _learning by doing [which] has central place in the science curriculum_’ (Ministry of Education, 2001a, p. 1), is often just rhetoric because the pedagogical approaches used in science classrooms often do not reflect aspects of NOS explicitly. For example, most, if not all, science teachers and students have been led to believe that all scientific investigations adhere to an identical set and sequence of steps known as _the scientific method_’ (McComas, 1996). Hence, both the teachers and the students need to broaden their understandings of the different assumptions inherent in scientific knowledge and scientific processes. Teachers would benefit from professional development that extends their thinking about the multiple ways investigations can be conducted in science.

Furthermore, the inclusion of NOS will have several benefits for the teaching and learning of science. McComas et al. (1998) have identified and discussed five benefits of the NOS in science curriculum and instruction. They claimed that NOS will promote: (i) the learning of science; (ii) understanding of science; (iii) interest in science; (iv) informed decision making; and (v) enhanced instructional delivery.
Recommendations

Five main recommendations emerge from this analysis for science curriculum developers in general and for the Seychelles Curriculum Review Team and the National Institute of Education (NIE) which has the mandate for teacher education, curriculum development, and research. These are:

1. Curriculum developers should ensure consistencies between specific subject documents by having representations on the different teams and/or by establishing a validation team. In the case of Seychelles, the rationale for science in the SNCF document should be compatible with that of the SNC document. This should also be done for the other subjects.

2. The curriculum development team should explore the possibility of including aspects of nature of science in the reviewed curriculum. We recommend that changes to the curriculum document(s) are made in collaboration with science teachers and science teacher educators because teachers are “the key curriculum decision-makers” (McGee, 1997, p.15) and “the most influential factor in educational change” (McComas, et al., 1998, p. 23).

3. Curriculum developers should adopt definitions for science that reflect multiple aspects of the nature of science. They may need some professional development to assist in this process.

4. Research should be carried out to identify the science teachers' knowledge base of NOS and teachers who could serve as pioneers and/or resource persons to lead/support professional development. In the case of Seychelles, NIE should be responsible for this research.

5. As a consequence of changes to the documents, there is a need for on-going professional development for all parties concerned. Hence, NIE should engage in the professional development of its science teacher educators and science teachers.

Suggestions for implementation

We suggest that the most important aspects of NOS are included in curriculum documents and science education. Lederman (2004) has identified seven essential aspects of NOS for science curriculum and instruction. These are:

1. “the distinction between observations and inferences”;
2. “the functions of, and relationships between, scientific theories and laws” (p. 304).

The other five aspects refer to the characteristics of scientific knowledge as being:

3. “tentative (subject to change)”;
4. “empirically-based (based on and/or derived at least partially from observation of the natural world)”;
5. “subjective (theory-laden, involves individual or group interpretation)”;
6. “necessarily invol[ing] human inference, imagination, and creativity (involves the invention of explanations)”;

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7. —socially and culturally embedded (influenced by the society/culture in which science is practice)” (Lederman, 2004, p. 304).

Perhaps the best way to ensure the successful inclusion of these aspects of NOS in the science education and consequently in the SNC document is to follow Black and Wiliam’s (1998) “four-point scheme for teacher development” (p. 146) which includes: step 1: learning from development—the formation of a small network of schools to pilot the implementation; step 2: dissemination—sharing success stories, and giving support and encouragement to other schools; step 3: reducing obstacles—the examination of all features which could affect the implementation; and step 4: research—the engagement in contextual classroom research. Piloting the implementation of NOS in a sample of primary and secondary science classrooms and disseminating success stories will provide other teachers with:

A variety of living examples of implementation, as practiced by teachers with whom they can identify and from whom they can derive the confidence that they can do better. They need to see examples of what doing better means in practice. (Black & Wiliam 1998, p. 146)

The way the different aspects of NOS are introduced to students, teachers and teacher educators is very important. Clough (2007) argued that some characteristics regarding the nature of science have been reduced to a set of tenets of established scientific knowledge that can easily be distorted, misinterpreted by researchers, teachers and students. As such the tendency is that instead of investigating and understanding those tenets, the tenets become knowledge to be taught and known by students (Clough, 2007). This view was also emphasised by Eflin et al. (1999, cited in Clough, 2007) who claimed that “just as science educators stress that science is more than a collection of facts, we emphasize that a philosophical position about the nature of science is more than a list of tenets” (Eflin et al., 1999, p. 112, as cited in Clough, 2007).

Clough (2007) has thus proposed that the established tenets should be converted into questions about the nature of science. This approach, according to Clough (2007), would explicitly and directly confront students’ naïve views of the nature of science. In agreement with Clough’s alternative approach to introduce NOS to students, we propose that due consideration is given to pedagogical approaches specific and relevant to teaching and learning about the NOS. In particular, it seems that the use of different forms of questioning could have merit.

**Implications**

The inclusion of NOS in *Science in the National Curriculum*, like any other curriculum change, will have implications for science teachers at all levels (pre-service and in-service science teachers including science teacher educators). We now discuss some of the major issues, although we acknowledge that other issues will arise.
Implications for science teachers
Most teachers and teacher educators may be unaware of the multiple aspects of NOS since NOS was not explicitly emphasised as part of their schooling or teacher education. As McComas (1996) remarked, pre-service teacher education programmes and the science textbooks used in these programmes make little or no reference to NOS. The language of the philosophy of science, for instance, may be unknown to many if not all science teachers, teacher educators and curriculum developers in Seychelles. In the first author’s case, after many years of teaching, her first encounter with the philosophy of science was in a course entitled Introduction to the philosophy of science, offered as a choice but not as a compulsory requirement of her programme of study for a Master of Science Education degree. This experience, with the assistance of Dr Philip Catton (the lecturer), indicated that the philosophy of science does have implications for science education that are important to identify, discuss and take into account.

According to Matthews (1994), science education without some consideration of the philosophy of science —results in a distorted science education‖ (p. 84) and this, according to McComas (1996), is possibly the main cause of misconceptions in science. Consequently, we suggest that as an initial step, the National Institute of Education should provide professional development for its science personnel (science teacher educators and curriculum developers) who will then be able to spread this innovation. NIE personnel should hold meetings and on-going workshops that focus on NOS to increase the awareness amongst existing teachers. Pre-service science teachers will gain an awareness of NOS through their respective, modified teacher-training programmes.

Implications for primary and secondary science teacher-training programmes
With this innovation, both the primary and the secondary teacher-training programmes presently being offered should be reviewed to integrate multiple aspects of NOS. While the teacher education programmes currently focus on the philosophy of education, we strongly propose that the nature of science, especially the philosophy and history of science, should be compulsory components of the science teacher education programmes.

Implications for teaching and learning of science
The current textbooks used for science teaching in Seychelles assume that science knowledge is static and that science knowledge is the information as written in textbooks. This relates to the present definition of science in Science in the National Curriculum of Seychelles and therefore this statement should be reviewed to include broad aspects of NOS. Curriculum developers could adopt a description for science that encompasses the three aspects put forward by Lederman and Niess (1997): —Body of knowledge, process/method, and a way of constructing reality (i.e. nature of science) that distinguishes it from other disciplines or ways of knowing‖ (p. 1).

The pedagogical approaches used in teacher education also need to be considered for successful implementation of this innovation. Hence, in pre-service science teacher education, as Meichtry (1998) suggested, teacher educators should model effective and appropriate pedagogical strategies for making NOS explicit with primary and secondary students. This will provide —real science experience for pre-service teachers to construct their own knowledge of the nature of science, (Meichtry, p. 231) and provide opportunities to reflect —on new understandings, and making connection between‖ their own learning and
that of the prospective students. By experiencing pedagogy that focuses explicitly on NOS, they will gain insights about the ways their future students experience learning” (Meichtry, 1998, p. 231).

Conclusion

Many science educators have shown concern about the lack of inclusion of NOS in science education at multiple levels. An analysis of the science curriculum and curriculum framework of Seychelles revealed that NOS is under-represented in these documents. In order to broaden students’ understandings about science knowledge and scientific processes, aspects of NOS need to be described in Science in the National Curriculum of Seychelles. Further, pedagogies that explicitly work with these definitions to clarify them in multiple contexts will foster more authentic students’ science learning experiences at multiple levels. Using knowledge of NOS in science education not only promotes the learning of science content and understandings about science, but also could stimulate interest in science and expand the ways people consider science when making important decisions (McComas, et al., 1998). Suggestions for the inclusion of aspects of NOS in the science curriculum and science education in Seychelles have been proposed. It is clear that teachers will be those who are most affected by this innovation as they will have to master not only . . . the subject matter and the techniques of making it interesting and intelligible to students, but [they] also [have] to get . . . the understanding of the nature of science” (Matthews, 1998, p. xiii). Moreover, it should be noted that the change will take time. As Battista (cited in Bentley & Fleury, 1998, p. 277) remarked “teachers themselves are the products of an old curriculum and have developed beliefs incompatible with the spirit and the substance of these innovations”.

Notes

1. Faure et al.’s report Learning to be: The world of education today and tomorrow is a UNESCO funded World Education report published in 1972. In this report Faure et al. considered that, “it was essential for science and technology to become fundamental, ever-present elements in any educational enterprises for them to become part of all educational activities designed for children, young people and adults” (Faure et al., 1972, p. xxvi).

2. Liberation was the result of a coup on the 4-5 June 1977. The Seychelles People United Party (SPUP) – a Socialist oriented party - overthrew the Seychelles Democratic Party (SDP) – Capitalist oriented, which had ruled the coalition government since Independence on 29th June 1976.

3. The curriculum framework outlines the seven underlying principles which guide all curriculum development and direct teaching and learning. It states the assessment policy, specifies the eight essential learning areas and broadly describes the main learning objectives for each and outlines the eight categories of essential skills to be “developed by all students” and the “desirable attitudes and values to be promoted through the curriculum” (MOE, 2001b, pp. 2-3).

4. The POS are modular publications serving as teachers’ guides. They define very specific objectives, skills, time allocation, teaching and learning strategies, and so forth for a given topic or section in the subject-based curriculum documents (MOE, 2001b, pp. 2-3).

5. Creole (the mother-tongue), English and French are the three spoken languages in Seychelles – all three officially recognised. They are all compulsory school subjects taught up to Secondary 5 with the exception of Creole which is only taught from Creche to Primary 6. Creole has a French-based dialect mixed with words and syntax from the traditional African and Asian languages spoken by slaves.
References


Appendix 1: Themes related to the nature of science (Te Kete Ipurangi).

1. Scientists turn their science ideas into questions that can be investigated
2. Scientists’ observations are influenced by their science ideas
3. Scientists’ investigations are influenced by their communities
4. Scientists’ predictions are based on their existing science knowledge
5. Scientists design investigations to test their predictions
6. Many different approaches and methods are used to build scientific investigations
7. When scientists carry out investigations they aim to collect adequate data
8. Scientists think critically about the results of their investigations
9. Scientific explanations may involve creative insights
10. There may be more than one explanation for the results of an investigation
11. Scientific explanations may be in the form of a model
12. When an explanation correctly predicts an event, confidence in the explanation as science knowledge is increased
13. Scientific explanations must withstand peer review before being accepted as science knowledge
14. New scientific explanations often meet opposition from other individuals and groups
15. Over time, the types of science knowledge that are valued change
16. All science knowledge is, in principle, subject to change
17. Open-mindedness is important to the culture of science
18. Scientific progress comes from logical and systematic work, and also through creative insights
19. Science interacts with other cultures.
A critical reflection of the evolution of civic education in Hong Kong schools

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Abstract

This article first discusses the successive phases of Hong Kong’s civic education in schools, to provide a historical context. It proceeds to critically examine the future development of Hong Kong’s civic education in schools with regard to political, national and human rights education, by analyzing the intended curriculum conveyed by the curriculum document of the mandatory subject, Liberal Studies, to be launched in September, 2009. For the first time, the subject provides all senior secondary students with the opportunity to study political topics. However, the limited scope of such political education and the conservative tone may limit its usefulness in assisting youth to reflect on political matters in a critical and informed way. In terms of national education, the issue of de-politicized and uncritical patriotism is better addressed than previously while the issue of inclusion and exclusion is not addressed. In addition, the action-poor nature of human rights education within the subject is hardly adequate for cultivating a human rights culture in Hong Kong. This article concludes with the plea that more empirical studies of the implementation are urgently needed.

Introduction

Civic education can broadly be understood as the education required to nurture good citizens. Tse (2004) explained that in nation-states, political education is commonly tied closely with citizenship and is commonly called civic education or citizenship education. According to this understanding, the core of civic education is political education, as it defines the relationship between a person and the political community. However, recently national education and human rights education have also emerged as important themes in civic education internationally. This article focuses on civic education in Hong Kong schools. It first discusses briefly the successive phases of Hong Kong’s civic education in schools to provide a historical context. Then with reference to the emerging international agenda, it proceeds to critically examine the future development of Hong Kong’s civic education at curriculum policy level with regard to political, national and human rights education, by analyzing the intended curriculum as prescribed in the Curriculum and Assessment Guide (Secondary 4-6) (CDC, 2007) of the mandatory subject, Liberal Studies, which is to be implemented in September, 2009.

Distinctive phases in Hong Kong’s civic education history

Civic education in Hong Kong is shaped by Hong Kong's colonial history and its social, economic and political development, as well as the political developments in China and China’s relationship with the world.
**Stage 1: (From World War II to mid 1980s): Depoliticization by the State and the Schools**

From the end of World War II to mid 1960s, the colonial government had a distinct need to depoliticize Hong Kong. Morris and Sweeting (1991) pointed out that in the late 1940s, the government enacted regulations to empower the Director of Education to control school subjects, textbooks, teaching materials and political activities in schools. The defeat of the Nationalist Party and the founding of the Communist regime in the mainland, in 1949, had caused much concern, particularly when there were clashes between Nationalist and Communist sympathizers in the colony. Apolitical and decontextualized model syllabuses leading to public examinations were set up and Civics was established as a school subject. The Cultural Revolution that took place in the People's Republic of China (PRC) in the mid-1960s brought about internal riots, resulting in chaos and instability. The government moved swiftly to undo any possible teaching of politics in schools, so as to preserve the status quo and avoid offending China. Civics was replaced by a new subject called Economic and Public Affairs (EPA). Politics and the discussion of sensitive issues were played down. The rapid industrialization of Hong Kong since the late 1960s also encouraged students to excel in public examinations to win a promising job. Education was further depoliticized.

**Stage 2 (mid 1980s -1997): The politicization of the intended curriculum**

In 1984, Britain and China signed a joint declaration on the future of Hong Kong. The agreement reinstated China as having sovereignty over, as well as the right to rule, Hong Kong from 1st July 1997. In return, China promised to give Hong Kong’s people self-rule and keep the capitalist system and way of life for another fifty years. Against this impending transfer of sovereignty, representative government began to develop. These democratic developments had a tremendous impact on the development of civic education. In 1985, the Government released its guidelines on civic education (**1985 Guidelines**) in schools, together with reform in the formal school curriculum. Morris (1990) noted that, in 1984, the syllabus of EPA was revised and discussion of representative government was included. A new subject, Government and Public Affairs, which was concerned mainly with the study of politics, was launched. Chinese History was extended to include the founding of the PRC. Morris and Chan (1997) commented that the study of previously sensitive material, including aspects of politics and the social and political context of the PRC, was then allowed, given the impending transfer of sovereignty in 1997.

Though the **1985 Guidelines** were released, little was actually done in schools, especially with respect to political education and the nurturing of national identity. Ironically, the **1985 Guidelines** called for schools to pass on political knowledge although the ban on political education was not removed until 1992. Tse (1997, pp. 5-7) concluded that, notwithstanding the issue of the **1985 Guidelines** and what had been done in their pursuance, students in Hong Kong still suffered from a poverty of political education in the wake of the handover.

Locally, representative reform moved swiftly forward. Meanwhile, the populace was becoming more politicized as a result of the Tiananmen Incident, in 1989, and the passing of the Basic Law and the Bill of Rights, in 1990 and 1991 respectively. Regarded as outdated, the **1985 Guidelines** were replaced by a new set of guidelines (**1996 Guidelines**) in 1996. Leung, Chai and Ng (2000) noted that the **1996 Guidelines** had six foci, namely, education for democracy, education for rule of law, human rights education, national education, global education and education for critical thinking. This set of guidelines established the
agenda for civic education, namely understanding politics and government, learning for democracy, national identity, human rights and promoting international perspectives. However, to what extent the intended curriculum was actually implemented, is a matter of doubt.

**Stage 3 (1997 to present): Re-depoliticization and official affirmation of nationalistic education**

Leung and Ng (2004) argue that after the return to China, there was a trend for the Hong Kong government to “re-depoliticize” civic education by adding a lot of non-political and moral content into civic education. The most fundamental change in the curriculum document: *Learning to Learn: Life Long Learning and Whole-person Development* is that civic education was replaced by moral and civic education, in which content related to politics was substantively downsized. Against this depoliticized context, the government has been giving a strong official affirmation to a national education aimed at promoting patriotism and displaying love for the motherland and traditional Chinese culture. Values like filial piety, love for the family, modesty, integrity, the desire for continuous improvement and collective responsibility are to be stressed, while sensitive topics are to be avoided. National identity is included as one of the paramount values in *Learning to Learn*. Leung and Ng (2004) assert that the national education currently in place is apoliticized, with emphasis mainly on the cultural dimensions of China – an education for cultural nationalism (Leung & Print, 2002).

This de-politicized policy may be due in part to the apolitical inclination of Asian civic education, which is expressed more in terms of moral education, rather than human rights and the democratic system (Lee, 2004). Nevertheless, despite the de-politicized policy, the second International Association for the Evaluation of Education Achievement (IEA) study revealed that Hong Kong students fare well in citizenship knowledge and have strong concern for elections, freedom of expression and political rights as compared internationally, though they tended to avoid activist politics (Lee, 2003a). This gap between policy and students’ behavior may be due to the political socializing effect of other socializing carriers, such as media, and politically active teachers adopting appropriate pedagogies (Lee, 2003a; Leung, 2006). Further research is needed for deeper understanding of the phenomenon.

**International trends in the development of citizenship education**

Whilst the second IEA study revealed that Hong Kong students compared well internationally, this article attempts to discuss whether the civic education policy at the present moment (stage three), with its de-politicized nationalist flavor, is able to match international trends in the development of citizenship education and the local need to support young people in facing the coming democratization of Hong Kong.

In the 21st century, there has been worldwide recognition that without active citizenship, which comprises both voting and active participation in civil society, democratic governance is fragile (Naval, Print & Veldhuis, 2002; Osler & Starkey, 2006). This observation has lead to a renewed interest in education for democratic citizenship (EDC) in civic education internationally (Bank, 2004; Birzea, 2004; Davies et al., 2001; Eurydice, 2005; Morris & Cogan, 2001; Osler & Starkey, 2006; Torney-Purta, Lehmann, Oswald & Schulz, 2001). Although there is a heated debate about the inclusion of human rights education in citizenship education, as reflected in the disputes surrounding the Crick Report in the United Kingdom.
human rights education is recommended as an important area of concern in citizenship education, especially global citizenship education. Human rights are regarded as a kind of global ethics that helps to address pressing issues, such as global injustice, and to act as shared values for the facilitation of intercultural understandings (Cogan & Derricot, 1998; Gaudelli & Fernekes, 2004; Osler, 2008; Print, Ugarte, Naval & Mihr, 2008; Tang, 2001; Turner, 1997). Some common themes identified in various EDC initiatives include national identity, democratic principles, values and processes, human rights, rule of law, global citizenship, children as citizens, democratic schooling and students’ construction of citizenship, (Naval, Print & Veldhuis, 2002; Osler & Starkey, 2006).

In particular, national identity has risen in the international agenda as globalization undercuts the traditional notion of national identity. In European countries, the issue of national identity is tied up with issues of unity and identity, inclusiveness and exclusiveness (Osler & Starkey, 2001). In Asian countries, civic education has traditionally been charged with the responsibility of instilling a sense of national identity, loyalty to the nation state and patriotism, associated with good citizens characterized by obedience, docility and deference to authority (Morris & Morris, 1999). This is the case with the Philippines (Sherlyne, 2003), Japan (Otsu, 2000), Thailand (Pitiyanuwat & Sujiva, 2000), Singapore (Han, 2000), Taiwan (Liu, 2000), Indonesia (Thomas, 1993) and the PRC, where the term political / ideological or patriotic education is used instead (Lee, 1997).

The implications for Hong Kong

What is the important mission for Hong Kong’s civic education when the above-mentioned worldwide trend is considered locally? As a Chinese special administrative region, how will the Confucian oriented, depoliticized Asian values affect future civic education in HK? In addressing the issue, Lee (2008) raised important questions asking “what kind of culture should be upheld, and whether the young generation should be socialized into the traditional culture or develop competency in critical cultural acculturation?” (p. 230). Kennedy (2005) argued that though Asian citizenship is characterized more by moral virtues and personal values than by civic and public values, a depoliticized civic and moral education is not good for Hong Kong in facing a complex and challenging future. Kennedy (2005) further argued that moral education in the Confucian tradition does not necessarily focus solely on personal and inward looking matters. Instead, there could be a political implication in a Confucian tradition civic education. After all, culture is not static, but rather a living web of values, customs and beliefs, capable of self-regeneration.

Politically, Hong Kong’s democratic development is defined and framed by the Basic Law which stipulates that universal franchise will eventually be adopted. In 2007, the Standing Committee of the People’s Congress of PRC ruled that the Chief Executive of Hong Kong could be elected by universal franchise in 2017, while universal franchise for the Legislative Council would be possible in 2020. Political education is consequently needed to cultivate informed democratic citizenry to make representative government work. Besides, the debate about the pace of democratic development will need to take into account the public’s understanding of politics.

As a cosmopolitan city, Hong Kong has committed to fifteen international conventions on human rights and associated local legislation. For example, the Hong Kong Bills of Rights and various discrimination
bills have been endorsed. Educating Hong Kong citizens to understand the conventions and the associated local legislation is essential for the legislation’s effective implementation. Moreover, even though there are relevant discrimination bills, there is a need for Hong Kong to be vigilant about discrimination relating to gender, race, disability, sex orientation and the abuse of disciplinary forces. This is understandable given its proximity to a weak human rights culture caused by decades of neglect (Leung, 2008). Moreover, being a member of the Human Rights Council of the United Nations, the PRC has just issued the National Human Rights Action Plan of China (2009-2010), in which there is a chapter on human rights education describing action plans for human rights education at various levels of schooling, public sector and the civil service. This suggests a need for human rights education.

Although Hong Kong’s sovereignty has been returned to the PRC for more than 10 years, and a lot of work has been done on national education, the national identity of Hong Kong people is still low compared to their local Hong Kong identity (Lee, 2003b). This need for national education has to be addressed together with attention to accommodating cultural diversities, given that Hong Kong is a cosmopolitan city.

Previous civic education in Hong Kong tried to capture some of the popular concerns, for example: national identity, democratic principles and values and human rights. However, little was achieved and now civic education is paying insufficient attention to political and human rights education. Nor is participatory citizenship adequately emphasized. National identity has received a lot of attention but not in the right proportion to multiculturalism. This informs an understanding of the future development of Hong Kong’s civic education to which we now turn.

Looking to the future: Civic education in Hong Kong with the launching of the subject Liberal Studies

In September 2009, a new mandatory subject called Liberal Studies, which is expected to be a vehicle for civic education, will be introduced to all senior secondary students (aged 15 to 18) as part of Hong Kong’s educational reforms. This is the first time a subject with a civic education mission has been made compulsory. However, other possible vehicle subjects, such as history and geography, may be marginalized with the introduction of Liberal Studies. It is interesting to examine whether the intended curriculum of Liberal Studies can address the specific needs of Hong Kong’s civic education as discussed, namely: political education, national education, and human rights education. To facilitate the analysis, we turn to the Liberal Studies document, *Liberal Studies Curriculum and Assessment Guide Secondary 4-6* (CDC, 2007). The development of the document from the draft to the final version and the content of the document will be examined.

The aims (CDC, 2007, p. 5) of Liberal Studies are to:

- enhance students’ understanding of themselves, their society, their nation and the human world and the physical environment;
- enable students to develop multi-perspectives on perennial and contemporary issues in different contexts (e.g. cultural, social, economic, political and technological contexts);
- help students become independent thinkers so that they can construct knowledge appropriate to changing personal and social circumstances;
(d) develop in students a range of skills for life-long learning, including critical thinking skills, creativity, problem solving skills, communication skills and information technology skills;

(e) help students appreciate and respect diversity in cultures and views in a pluralistic society and handle conflicting values; and

(f) help students develop positive values and attitudes towards life, so that they can become informed and responsible citizens of society, the country, and the world.

The basic curriculum framework is detailed in Appendix 1 (CDC, 2007, p.11, 14 & 15). In it, there are three areas of study: ‘Self and Personal Development’, ‘Society and Culture’ and ‘Science, Technology and the Environment’. In the three areas of study, there are six modules: ‘Personal Development and Interpersonal Relationships’, ‘Hong Kong Today’, ‘Modern China’, ‘Globalization’, ‘Public Health’ and ‘Energy, Technology and the Environment’. In each module, there are several themes with key questions for enquiry. In addition, there are explanatory notes for the key questions. All the modules are compulsory but the detailed content can be used flexibly to adapt to the abilities and interests of the students.

**Liberal Studies and Political Education**

Can Liberal Studies prepare Hong Kong’s students, in terms of political education, to cope with the demands of representative government, given that the Basic Law of Hong Kong already prescribes that both the Chief Executive and the Legislative Council will be returned by direct election in the future? What follow are some observations about the political education embedded in Liberal Studies. Reference will be made to Porter’s (1983) concepts of political education.

Firstly, the subject means that, for the first time, all students can have the opportunity to acquire political knowledge. This is helpful for the development of a representative government system in Hong Kong. However, we should reflect on the adequacy of the political knowledge conveyed through the subject. While it may be difficult to ascertain the precise amount of political knowledge required by students to face the challenges of ‘Hong Kong people ruling Hong Kong’ and the development of representative government, we may consider as a reference point the content of the subject Government and Public Affairs, which was set up in the late 1980s mainly to address the prospective political changes in Hong Kong. Government and Public Affairs teaches students political concepts and theories, the politics of Hong Kong, as well as the politics of China and democracies in the West (Yuen, 2007). Through Government and Public Affairs, students acquire political concepts such as nation, state and sovereignty upon which they will presumably base their new citizenship status. Study of the general concepts and theories pertaining to democracy and representative government helps students to evaluate the development of representative government in Hong Kong. In-depth study of Hong Kong’s political institutions informs such judgment. Studying the politics of China, inclusive of its ideology, helps students understand their motherland. This is further enhanced by a worldview acquired through comparing and contrasting China’s politics with the West. By contrast, the political content of the Liberal Studies curriculum, particularly if it is intended to replace Government and Public Affairs and other similar subjects, is comparatively thin in a number of ways. Political ideologies, particularly those pertaining to how democracy is construed, are lacking. This makes it difficult to understand not only the One Country Two Systems but, as well, the debate relating to representative development in Hong Kong. Not including
the study of Western democracies seems parochial in an increasingly globalized world and prevents students from making meaningful comparisons.

Secondly, attempts have been made to make the teaching of politics a harmonious matter and to downplay any radical/critical perspectives. A conservative approach to teaching has been chosen. It is interesting to note the change in curriculum aim between the first draft (2004) and the final version (2007). In the 2004 first draft, aim no. 6 of the subject reads talks of helping students develop and reflect on their own values, so that they are able to defend their own decisions, judgments and convictions, and to become informed and responsible citizens in their community, nation and the world. Translated into pedagogical terms, this came close to a liberal/reformist mode and the critical perspectives of a radical stance can be seen. This, however, was replaced in the final version by talking of helping students develop positive values and attitudes towards life, so that they can become informed and responsible citizens of the country, society and the world (aim f). The slip into the conservative mode can be discerned. While this article does not study the factors behind such change, a study of the factors shaping the developmental process of the subject can be illuminating.

Thirdly, students are required to understand how government and politics are working to resolve conflicts and achieve common goals, rather than to analyze the root of disagreement and the basic contradictions pertaining to the disagreement. Thus, Theme 2, ‘Rule of Law and Socio-political Participation’ directs the students to consider ‘what ways does the rule of law protect rights and promote the observance of responsibilities among Hong Kong residents?’ and ‘how does the government respond to the demands of different social groups?’ On the other hand, while the study of political participation can lead the way to a controversial debate about the pace of democratization and contrasting notions of democracy, the syllabus instead requires the students to concentrate on ‘What factors determine the level and form of socio-political participation by Hong Kong residents?’ and ‘What is the significance of their participation?’ Furthermore, in the explanatory notes under Theme 2, when government as an institution is mentioned, the focus is on how the government responds to the demands of the people, organizations and interest groups and how such responses help enhance rule of law and socio-political participation.

Liberal Studies and national education
A major international concern regarding national education in citizenship is whether national education is inclusive and whether it can balance diversity and unity (Osler & Starkey, 2001). The local concern, as expounded above, is about the de-politicized nature of national education and the kind of patriotism under promotion.

In Liberal Studies, the themes related to national education include ‘China’s Reform and Opening Up’ and ‘Chinese Culture and Modern Life’ in the module ‘Modern China’; ‘Rule of Law and Socio-political Participation’ and ‘Identity’ in the module ‘Hong Kong Today’. Regarding the issue of inclusion and exclusion, the theme ‘China’s Reform and Opening Up’ does not include anything specifically related to ethnic minorities. In the theme ‘Chinese Culture and Modern Life’, ‘ plurality and diversity of cultures’ is included in the explanatory notes while ‘aspect for different ways of life’, ‘plurality’, ‘sensitivity’ and ‘appreciation’ are merely included as attitudes. However, they are included in the context of a traditional Chinese lifestyle against a modern lifestyle, not in the context of ethnic diversities.
In the theme ‘Identity’, of the four questions for enquiry, only one contains the phrase ‘ethnic minorities’. It asks, ‘How do different social groups, such as new arrivals, indigenous inhabitants in the New Territories and ethnic minorities, develop a sense of identity?’ In the explanatory notes, there is no explicit mention of ethnic minorities. Several sentences touch obliquely on the subject: ‘—Multiplicity of identities of Hong Kong residents’, ‘—Different kinds of Hong Kong residents: permanent and non-permanent residents; permanent residents who are Chinese citizens and permanent residents who are not of Chinese nationality etc.’ Other examples in the explanatory notes likewise show scant concern: ‘—Factors affecting the sense of belonging and identity may include historical development; development in political, economic, social and cultural life’, ‘—Significance of multiple identities of Hong Kong residents may include: cultural reflections and innovation, diversity and multiple voices in society and increasing thresholds of freedom and adaptability.’ Regarding the concepts of plurality, open-mindedness and interdependence, they are merely included as values and attitudes. The term ‘ethnic minorities’ and the related concept ‘permanent residents who are not of Chinese nationality’ are each only mentioned once. Moreover, the tone used in the description of Hong Kong residents implies a sense of homogeneity, regardless of the fact that ethnic minorities are increasing. For example, in the questions of enquiry, it is asked, ‘To what extent do Hong Kong residents regard themselves as local, national and global citizens? How are their identities shaped?’ In the explanatory notes, it states that, ‘—Identity and sense of belonging may be shown by feelings and responses towards local and national symbols, national historical events, cultures and landscape.’ It seems that although the notion of multiple identities is included, these are interpreted as global, national and local identities, without addressing the issue of ethnic identity.

For the theme ‘Rule of Law and Socio-political Participation’, the explanatory notes state that the government receives ‘—demands from people, organizations and interest groups with different characteristics, backgrounds, ideals and endowments, e.g., …people of different gender, ethnicity and religion.’ That is, in this theme, ethnic minorities are considered as groups of people making demands on the government for their interest.

From the above discussion, we can see that the ethnic minority issue is not addressed at all in the module ‘Modern China’ and is only obliquely tackled in the themes in ‘Hong Kong Today’. This indicates that Liberal Studies does not regard it as an issue for national education but treats it only as a local issue. In addition, Hong Kong society is taken as a homogenous community and the rights of ethnic minorities are not adequately addressed. Moreover they are depicted as groups fighting for their own interest. The portrait of ethnic minorities in Liberal Studies is very different from that in the global trend of civic education, which is moving towards greater inclusiveness, suggesting that Liberal Studies is inadequate in addressing the need to accommodate a diverse range of ethnic and cultural communities.

Whether national education embedded in Liberal Studies remains de-politicized is the focus of the following discussion. The theme ‘China’s Reform and Opening Up’ seems to offer some hope of political attention. There, the questions for enquiry which are politically related include ‘—How has the Central People’s Government dealt with the effects of reform and opening-up?’, ‘—What way has China’s participation in international affairs affected the overall development of the country?’ and ‘—To what extent have the reform and opening-up affected the overall national strength of the country?’ In the discussion of reform and opening-up, examples listed in the explanatory notes are rural reform, the development of township and villages’ enterprises etc. Most of them are social and economic reforms and
no explicit political reform is quoted. The most relevant explanatory notes are, examples of the Central People’s Government’s responses to reform and opening-up: institutionalization of more democratic practices, building of the legal system, and legislation and policies with respect to international standards”. Another relevant explanatory note mentions:

…dimensions of governance and the impact of reform and opening-up, e.g. decision on priorities in resource allocation; the functions of government and administrative efficiency; the formulation and implementation of policies, rules and regulations… responding to the needs of citizens; the legitimacy of government; the relationship between the government and people, and between the Central People’s Government and local people’s governments.

For the measurement of overall national strength, the explanatory notes suggest indicators in the economy, military strength, science and technology, resources, governance, diplomacy and social development level. Although the overall discussion of the theme ‘China’s Reform and Opening Up’ is inclined more to social and economic aspects, there are opportunities to explore the political aspect of the reform and opening-up. However, for the theme ‘Chinese Culture and Modern Life’, which focuses on the exploration of the changing Chinese family and the interaction of Chinese culture in the modern society, there is less material related to politics.

If teachers are well equipped with knowledge about the politics of China, opportunities can be well utilized. If not, teachers may prefer focusing on the less sensitive social and economic aspects. In conclusion, in comparison to stage three, the issue of de-politicization of national education is better addressed and the key to success is knowledgeable teachers.

In general, the hegemonic discourse of national education focuses on the ‘bright side of China’, with emphasis on the achievements of the PRC and an avoidance of the ‘dark side’ (Leung, 2003). This biased approach may lead to indoctrination (Leung, 2004) and become a hindrance to critical patriots’ (Fairbrother, 2003; Leung, 2007). Although patriotism is explicitly stated as one of the values and attitudes in the theme ‘China’s Reform and Opening Up’, it is contextualized in an approach which helps teachers and students understand related issues and suggests possible perspectives and directions in exploring the issues”. This implies that both the ‘bright’ and ‘dark’ will be studied, opening up the possibility of the cultivation of ‘critical patriots’.

In conclusion, we can say that the national education focus of Liberal Studies addresses the two local concerns, namely the de-politicized nature of the curriculum and the cultivation of blind patriots against critical patriots. But it fails to match the global trend of addressing the issues of inclusion and exclusion, diversity and unity in the context of a growing multi-ethnic society.

Liberal Studies and human rights education
Human rights education has been inadequately addressed for decades in Hong Kong (Leung, 2008). In the following discussion, international documents – the Universal Declaration of Human Rights (UNDHR), the International Convention on Economic, Social and Cultural Rights (ICESCR), and the International Convention on Civil and Political Rights (ICCPR) are used in analysing the content of the Liberal Studies Curriculum and Assessment Guide (Secondary 4-6) (CDC, 2007), while its aims and pedagogies are
analysed with reference to commonly used pedagogies in human rights education (Meintjes 1997; Nazzari, McAdams & Roy, 2005; Tibbitts, 2005).

In the curriculum document, human rights, as a value and attitude, is only mentioned three times. Besides, nothing explicitly related to human rights is included. However, although little has been said about human rights directly, there are themes and key questions within the modules that can be used for human rights education, provided teachers are knowledgeable in human rights. Using the module ‘Hong Kong Today’ as an example, how human rights education can permeate the curriculum is illustrated below.

In the basic curriculum framework, the theme ‘Quality of Life’ in ‘Hong Kong Today’, contains questions of enquiry addressing how the quality of life can be measured economically, socially, culturally, politically and environmentally. For the economic, social and cultural dimensions, the ‘rights-based’ concepts of the UNDHR and ICESCR can be considered as standards of reference. For example: ‘right to work for a decent living and safe and healthy working conditions’ (UNDHR, article 23; ICESCR, articles 6 and 7); ‘right to the enjoyment of the highest attainable standard of physical and mental health’ (articles 12 and 25); and ‘right to enjoyment and participation in cultural activities’ (articles 15, 24 and 27). As for the political dimension, it can be discussed together with the theme ‘Rule of Law and Socio-political Participation’. In this theme there are issues about rule of law, citizenship, rights and minority rights. In addressing these issues and the political dimension, the civil and political rights of UNDHR and ICCPR can be incorporated: for example, ‘rule of law’ (UNDHR, articles 6, 7, 8, 10, 11; ICCPR, articles 14, 15, 16, 26); ‘right to freedom of thought, conscience and religion’ (article 18); ‘right to fair universal suffrage’ (articles 21 and 25); and ‘minority rights’ (ICCPR, article 27).

Concerning the proposed pedagogies, the Liberal Studies document emphasizes students’ construction of knowledge and recommends an enquiry approach, exploring contemporary and perennial issues from a variety of perspectives. It proposes learning outside the classroom, using, for example, experiential learning, with the involvement of non-governmental organizations (NGOs). All these recommendations are supported by human rights educators (Krain & Nurse, 2004; Meintjes, 1997; Nazzari, McAdams & Roy, 2005; Tibbitts, 2005). However, unlike human rights education, the recommendation of participatory learning strategies in Liberal Studies is not for cultivating ‘change agents’, but rather to provide learning opportunities which cannot be achieved in the classroom, such as surveys, interview and various forms of fieldwork. In addition, important human rights education teaching approaches that emphasize the role of learners as ‘change agents’, such as critical pedagogy (Giroux, 1983), transformative learning (Mezirow, 1997) and emancipatory transformation (Freire, 1972), which highlight the need for critical perspectives in the analysis of dominant discourse, are missing in Liberal Studies (Magendzo, 2005; Tibbitts, 2005).

Although human rights education is not mentioned explicitly in the aims of Liberal Studies, all of its aims pertain to human rights education. To a certain extent, the types of citizens expected to result from the aims of Liberal Studies are similar to those expected from human rights education (Leung & Lau, 1999; Starkey, 1991). Hence, although human rights are not explicitly mentioned in the aims of Liberal Studies, there is room for human rights education within the aims. However, as discussed, cultivating students to be transforming agents for the protection and improvement of human conditions, which is an important aim of human rights education, is largely neglected. It is only referred to obliquely in aim (e), ‘handling
conflicting values’ and aim (f), ‘become informed and responsible citizens of society, the country, and the world’. In addition, in the development of skills in aim (d), the emphasis is on intellectual and communication skills but not action skills. All this implies a gap between the types of citizens expected from Liberal Studies and from human rights education. Perhaps, the human rights education that permeates into Liberal Studies is a form of ‘action-poor human rights education’ where the citizens are not expected to be transforming agents (Leung, 2008). Moreover, after decades of neglect of human rights education, including by teacher education institutions, very few teachers are knowledgeable in human rights. Coupling the lack of well-prepared teachers and the action poor nature of human rights education in Liberal Studies, it may be difficult for Liberal Studies to reach the international standard and address the need for the cultivation of a mature human rights culture.

Conclusions and recommendations

This paper argues that civic education in Hong Kong will soon move into a new phase due to the introduction of the core subject Liberal Studies. This will be a watershed for Hong Kong’s civic education because, for the first time, a subject with a civic education mission has been made a compulsory subject. This implies that all students have at least a chance to encounter learning experiences related to civic education (Kerr et al., 2007). However, whether this newly introduced subject can successfully become a vehicle for civic education depends on whether it can address various concerns, both globally and locally.

For the first time, Liberal Studies allows all Hong Kong students access to the learning of political knowledge, which is so important for the development of representative government and the smooth working of ‘One Country, Two Systems’. It can also be potentially helpful in nurturing future political leaders. However, if the aim is to nurture students who can make informed judgments on political issues and who can understand the politics of Hong Kong and China in a world context, the political education elements in the subject may be too limited in scope and too conservative in tone.

From a national education perspective, this article concludes that if teachers are well equipped with knowledge and awareness of the political affairs of China and appropriate pedagogies, local concerns regarding the de-politicizing of national education and the worry of cultivating uncritical patriots can be better addressed, as the curricular content encourages the exploration of political aspects of China from various perspectives. However, the international concern about the inclusive and exclusive nature of national education, which is also rapidly arousing local concern, is still insufficiently addressed.

For human rights education, unless teachers have a very sound knowledge of human rights, which is uncommon, there is limited scope to instil human rights in the curriculum. Moreover, the action-poor nature of the pedagogies recommended is insufficient for the cultivation of active citizens who not only live in accordance with the principles of human rights but also are willing to take actions to protect their own and other citizens’ human rights when those rights are being infringed. This implies that the growing global concern for human right education may not be adequately addressed and the hope of cultivating a human rights culture in Hong Kong is hindered.

According to the analysis, we recommend that the Curriculum Development Council should review the Liberal Studies curriculum and tackle its insufficiencies as soon as possible. We urge that teacher
education institutes should take appropriate measures to equip teachers with the necessary knowledge, values and skills. The effectiveness of various programmes should be evaluated so as to identify areas for improvement. For academics, research on the implementation of Liberal Studies and the learning of students should be conducted to evaluate the effectiveness of the implementation of the subject. After all, it is the learning, not the intended curriculum that is deemed to be the most important. Moreover, much more research is needed to study the impacts of Asian values on political education, human rights education and national education in Hong Kong in this globalizing age, in order to address the issue of mutual accommodation between universality and particularity. Last of all, we would like to appeal to all Liberal Studies teachers, the gate keepers of learning and teaching, that they work to modify and adapt civic education content to purposes beyond those of the curriculum drafters so as to address the local and international challenges discussed earlier. What and how this can be done is another issue calling for urgent in-depth research.

We have conducted the analysis and make the suggestions in the hope that Liberal Studies can genuinely achieve the goal of cultivating active, multiple citizens for Hong Kong, China and the world.

Notes
1 In this paper, the terms civic education and citizenship are used interchangeably

References
Curriculum Development Council (CDC). (2007). *Liberal Studies Curriculum and Assessment Guide (Secondary 4-6)*. Hong Kong: Hong Kong Education Department.


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### Appendix 1: The Framework for Liberal Education:

<table>
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<tr>
<th>Areas of Study</th>
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<tr>
<td><strong>Self and Personal Development</strong></td>
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<td><strong>Module 1</strong>: Personal development and interpersonal relationships</td>
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<td>Theme 1: Understanding oneself</td>
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<td>Theme 2: Interpersonal relationship</td>
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<td><strong>Society and Culture</strong></td>
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<td><strong>Module 2</strong>: Hong Kong Today</td>
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<td>Theme 1: Quality of life</td>
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<td>Theme 2: Rule of law and socio-political participation</td>
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<td>Theme 3: Identity</td>
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<td><strong>Module 3</strong>: Modern China</td>
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<td>Theme 1: China's reform and opening up</td>
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<td>Theme 2: Chinese culture and modern life</td>
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<td><strong>Module 4</strong>: Globalization</td>
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<td>Theme 1: Impact of globalization and related responses</td>
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<td><strong>Science, Technology and the Environment</strong></td>
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<td><strong>Module 5</strong>: Public Health</td>
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<td>Theme 1: Understanding of public health</td>
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<td>Theme 2: Science, technology and public health</td>
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<td><strong>Module 6</strong>: Energy, Technology and the Environment</td>
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<td>Theme 1: The influence of energy technology</td>
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<td>Theme 2: The environment and sustainable development</td>
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Perceptions of the Pacific in New Zealand social studies programmes

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Abstract

The study of Pacific nations has an established history in New Zealand social studies programmes. Pacific topics have been popular in New Zealand schools, particularly those with significant numbers of Pacific students. Despite the popularity of such studies, little is known about the way in which Pacific peoples, and their knowledge, are represented in The New Zealand Curriculum. The general image of Pacific peoples that emerges from resources for schools is often superficial and limited to cultural components of ritual and artefacts such as food, dance, music, and dress. This paper examines the way in which Pacific knowledge and experience is located, represented, and legitimated in social studies programmes in New Zealand schools.

Introduction

Pacific peoples are the third largest ethnic minority in New Zealand. In 2006, this multi-ethnic group made up 6.9 percent (Statistics New Zealand, 2007) of the total population. These peoples have become part of the fabric of New Zealand society and have developed in a multitude of ways over the past fifty years. Two important questions, therefore, have preoccupied the writers of this paper:

- How has the school curriculum represented Pacific peoples, knowledge and experience within the school curriculum?
- What perspectives have informed teachers’ views of Pacific people’s knowledge, and experiences (in all their diversities and commonalities)?

We suggest that New Zealand learners are more likely to encounter, engage, and develop their knowledge about Pacific peoples and societies in social studies programmes. They are also likely to form views about their Pacific peers and fellow New Zealanders. We argue elsewhere (in Aitken & Sinnema, 2008) that the identity outcomes of the new social sciences curriculum are relevant to Pacific learners as they inevitably explore, ask questions, and develop their personal identity, but more particularly their identity as a Pacific person who is part of a New Zealand society, has ties to a Pacific heritage and possibly homeland, and is a member of a global community.

A significant body of literature has been devoted to the need to affirm and advance minority groups’ visibility in mainstream curriculum (for example, Banks & Nguyen, 2008; Cummins, 1985; Delpit, 1995; Ladson-Billings, 2004; McIntosh, 2001; Nieto, 2001). These writers argue that minority groups have been systematically marginalized in education. Banks (2004) for example, writes of assimilationist approaches to education that marginalize minority students from their ethnic group and also from the mainstream...
culture of society. Greene (1995) argues that many minority groups are invisible in the curriculum and therefore —erc made to feel distrustful of their own voices . . . yet they are not provided alternatives that allow them to hear their stories or shape their narratives or ground new learning in what they already know” (p. 168). Others have developed theoretical frameworks that attempt to integrate minority students’ cultural background into the pedagogy of the classroom (Gay, 2000; Hernandez-Sheets, 2006; Ladson-Billings, 2004). These arguments have resonance for all minority groups whether they are Hispanic, African American, Inuit or Pasifika.

This article examines the way in which Pacific knowledge and experience is located, represented, and legitimated in social studies programmes in New Zealand schools. We offer an analysis of social studies resources commonly used in primary and secondary schools. We also detail three perspectives of the Pacific in social studies programmes: a ‘small island’ perspective, an Oceanic perspective, and a tourist perspective. We argue that narrow and often ideologically traditional perspectives of the Pacific embedded in teaching about Pacific people and Pacific knowledge may misrepresent cultural realities, perpetuate stereotypes, and undermine the identity of students of Pacific heritage.

The national context

New Zealand has a national curriculum that provides a framework and a common direction for schools so that they might develop their own school and classroom curricula. Schools and teachers have, therefore, considerable influence over the exact content that students will engage with in the classroom. What has been the general nature of the decisions teachers have made regarding the location of Pacific knowledge and experience in the social sciences, and social studies in particular?

A national survey in the early 1980s found that many teachers either lacked confidence or were not very concerned about teaching topics based on Pacific content (Department of Education, 1987). School inspectors reported that discussions with teachers on cultural issues indicated a great deal of misinformation and some overt prejudice. Samu (1998) was of the view that teachers found Pacific topics problematic due to their lack of confidence about how to include these topics in their social studies programmes. These findings are reiterated in a literature review and survey commissioned by the Pacific Cooperation Foundation (PCF) in 2004. Their report found that Pacific information was readily available in resources that had been developed in many parts of the curriculum. Pacific resources were being actively used in several areas within the curriculum such as the language teaching streams. While the supply of Pacific resources within the social studies curriculum was relatively high, the demand for these resources was generally very low. Most social studies teachers seemed to have a preference for teaching about other parts of the world rather than the Pacific. The reason for this avoidance of Pacific topics, the survey found, was largely due to low levels of teacher knowledge and confidence about the Pacific. The report considered this to be a key factor in the low uptake, amongst teachers, of the Pacific social studies resources.

Prior to release of The New Zealand Curriculum (2007), Pacific content was mandatory in social studies programmes. Students were to —develop understandings of the societies, cultures and environments of Tangata Pasifika” (Ministry of Education, 1997, p. 20). While teacher knowledge and confidence related to teaching about the Pacific was low, Pacific-based topics were popular in schools with significant
numbers of Pacific students, especially those situated in cities such as Auckland, which has a large population of Pacific peoples. A teacher from one Auckland school spoke about the way students’ Pacific identity was validated by promoting Pacific role models in the school social studies programme.

Last year they had Adeaze [and] Orene Ai‘i, the rugby player . . . The year before that they had Ali Lauiti‘iti. So they had these famous New Zealand people that they can look up to. We’re actually looking at Pacific Island role models that they can actually look up to. I actually prep the guest speakers to talk to them about setting goals and taking pride in yourself and your culture. (Cited in Siteine, 2006, p. 75)

This example represents the perception that Pacific topics within social studies were included to help students understand their Pacific identity and therefore, were important and prioritized aspects of their programme. What, then, is the extent of our knowledge about the ways in which social studies validates Pacific identities, and represents Pacific peoples knowledge and experience?

Unfortunately, there is a dearth of research about the location of Pacific knowledge and expertise in the New Zealand curriculum, particularly in terms of representation and the types of understandings that students develop as a consequence of their Pacific-based studies within either social studies or other social sciences fields. Pacific education and Pacific education research are established and recognized fields or disciplines within New Zealand (Coxon & Mara, 2000; Coxon, Anae, Mara, Samu & Finau, 2001; Ministry of Education, 2005). Coxon et al. were unable to locate many research studies for inclusion in their Literature Review on Pacific Education Issues. In terms of the primary sector, they explained: “Research into the primary curriculum issues . . . has not been extensive” (2001, p. 42). Most of the studies located and analysed were based on literacy and language issues and concerns. In terms of the secondary sector, only one social studies-based piece of research was identified. The main conclusions of this study were that schools were at risk of developing simplistic and stereotypical programmes and Pacific knowledge and experience was at risk of being rendered invisible (Coxon et al., 2001, p. 68).

Two more recent sources demonstrate that not much has changed and the dearth of information about Pacific-related research and literature continues. Bruce-Ferguson, Gorinski & Samu (2007) conducted a literature review focused on the experiences of Pasifika learners in the classroom. In searching and analysing research in terms of ‘culturally responsive pedagogical practice and content’, nothing specific related to social studies or other areas within the social sciences domain was found. The Best Evidence Synthesis (BES) in the Social Sciences (Aitken & Sinnema, 2008) located and analysed six studies that foregrounded Pacific learners. Of these, two were directly about students engaging with social studies content and only one involved Pacific-specific content.

A conceptualisation of Pacific perspectives

Given our limited knowledge about the ways in which Pacific peoples and their knowledge is represented, we propose a framework that allows teachers to utilise a more critical lens to inform their decision-making process about Pacific social studies topics. The proposition of such a framework is based on our understanding that while there is a national curriculum that provides guidelines for the development of social studies programmes, critical decisions about how and what to teach rests in the hands of teachers.
Their perspectives of the Pacific will influence the nature of the content that is learned. The prevalence of certain perspectives over others is evident in social studies texts and resources. We suggest that this is likely to be the same with regard to teachers' perspectives of the Pacific. We propose, detail, and problematize, therefore, a conceptualization of three perspectives.

**The Oceanic perspective of the Pacific**

Hau’ofa presented what Samu and Siteine (2006) identify as ‘an Oceanic perspective’. This view emphasizes ‘a more holistic perspective in which things are seen in the totality of their relationships” (Hau’ofa, 1993, p. 7). An Oceanic perspective draws attention to ancient Pacific people’s ways of seeing their world and to their actions in the present. New Zealand social studies programmes that do not engage in more critical inquiries of other perspectives besides ‘small island’ perspectives are likely to lead to a narrow, superficial and perhaps misinformed understandings about Pacific nations and peoples. Jacoby (1975) described this process as social amnesia: ‘A forgetting and repression of the human and social activity that makes and can remake society” (p. 5).

**The ‘small island perspective’ of the Pacific**

Another view can be described as a ‘small island’ perspective. The main proponents of this perspective describe small island states in terms of the geographic and economic features of the island nation. These features may include geographic isolation, a land area of less than 20,000 km, and a population of fewer than 1,200,000 (Shaw, 1982). The level of income of the population, economic development, and length of experience as an independent nation, are other indicators (Doumerge, 1983).

We consider small island perspectives as problematic. Pacific academics have argued that such perspectives are dangerous for Pacific peoples and the way they see themselves particularly if these views are presented as the only perspective to view the smallness and ‘islandness’ of Pacific countries (Waddell, Naidoo & Hau’ofa, 1993). Hau’ofa has warned that such views,

if not countered with opposite and more constructive views, could inflict lasting damage on people’s image of themselves, and on their ability to act with relative autonomy in their endeavor to survive reasonably well within an international system in which they have found themselves. (1993, p. 4)

Alternative perspectives can assist to deconstruct the frameworks for viewing the Pacific created by western academic disciplines.

**The tourist perspective of the Pacific**

Social studies programmes can easily degenerate into what Jones and Derman-Sparks (1992) termed a ‘tourist’ approach, which involves ‘touring’ students around the food, dress, and music of ethnic groups. While students from the dominant culture are —presented with their heritage as part of the regular and accepted sequence of topics,” students with Pacific backgrounds are —put on show” to illustrate topics dealing with their countries of origin (Hill, 1994, p. 89). Unfortunately, a tourist perspective is evident in many New Zealand publications for social studies teachers (Siteine, 2006). They are unlikely to introduce students to the substantive issues associated with global issues and world enlargement, such as inequality and oppression, or give voice to silent histories (Harrison, 1998). A ‘tourist’ perspective can serve to
perpetuate the stereotypes, misrepresent cultural realities, and undermine a sense of belonging and identity.

**Dominant perspectives in New Zealand social studies**

Social studies programmes developed from a small island nation perspective or those that programmes that encourage a tourist perspective to the Pacific maximize the chances of social amnesia. Both perspectives can be seen to contribute to the unintended belittling of Pacific peoples that Hauofa (1993) and others (Kabutaulaka, 1993; Thaman, 1993) explore.

The New Zealand social studies curriculum’s established recognition of Pacific contributions to New Zealand society, and its ongoing relationships with Pacific nations, identified earlier in this paper, aligns well with a Pacific Oceanic perspective. When one considers the established Pacific communities in Australia, Hawaii, and the west coast of the United States, Pacific contributions and external relationships are shaped and influenced by informal networks that are far more extensive than some might realize, especially when the Pacific is conceptualized as ‘Oceania’. Hau’ofa (1993) explained:

> The resources of Samoans, Cook Islanders, Niueans, Tokelauans, Tuvaluans... Fijians...and Tongans are no longer confined to their national boundaries; they are located wherever these people are living permanently or otherwise …The world of Oceania...certainly encompasses the great cities of Australia, New Zealand, the USA, and Canada. (p. 8)

If this is the reality, then New Zealand social studies programmes that do not engage in more critical inquiries of other perspectives, besides ‘small island’ and tourist perspectives, are likely to lead to narrow, uncritical, and perhaps misinformed understandings about Pacific societies and Pacific peoples. Moreover, small island and tourist perspectives serve to render Oceanic perspectives of Pacific knowledge, culture, and understandings invisible. Jacoby (1975) described this process of invisibility as social amnesia: “A forgetting and repression of the human and social activity that makes and can remake society” (p. 5). Simon (1992) argued that social studies in the New Zealand curriculum has served this purpose.

Social studies in New Zealand schools functions as a vehicle for the transmission of dominant class Pakeha values, not just because of the design of the syllabus and the scope it provides for teachers to bring their own values and prejudices to bear in the selection and development of their programmes, but, more significantly, because these features together support the cultivating of social amnesia. (p. 269)

Unfortunately, a tourist perspective is evident in many New Zealand publications for social studies teachers (for example, *The Social Studies Resource File* by Developmental Publications; *Festivals and Celebrations* by Michael Leyden Publications). In one such publication, which aimed to address the “ways in which the movement of people affects cultural diversity and interaction” and “why and how individuals and groups pass on and sustain their culture and heritage” (Newspapers in Education, 2003, p. 1), the following activities were suggested: Find out the words to a Pacific Island song; learn a Pacific Island dance; listen to a Pacific Island choir; unscramble these words to find fruit and vegetables which grow in the Pacific Islands (two recipes for taro followed this activity); play a game of Kilikiti [Samoan cricket] with your class.
These activities exemplify a tourist perspective of the Pacific. This may be a good place to start a social studies topic, but unfortunately, in many instances, this is also where the Pacific topic ends. By not moving beyond these types of activities, teachers will marginalize those students that such topics are attempting to include. It is imperative that Pacific topics delve more deeply. It is unlikely that any of the activities listed above will introduce students to the substantive issues associated with global issues of social justice and world enlargement such as inequality and oppression or give voice to silent histories (Harrison, 1998; Jacoby, 1975; Simon, 1992). Rather, a ‘tourist’ perspective can serve to perpetuate the stereotypes, misrepresent the cultural realities, and undermine a sense of belonging and identity (Ellington, 1998; Ladson-Billings, 1992).

**Conclusion**

We contend that New Zealand social studies teachers are more likely to hold ‘small island’ or ‘tourist perspectives’ of the Pacific. Based on our own observations, units developed around Pacific topics appear to be based on geographic, economist, or limited cultural views of the Pacific. Furthermore, such units are reified, static and even romanticized with students studying settings and situations (e.g. ‘A Village in Samoa’) separate and apart from the broader, more complex contemporary political and social context of the island nations themselves. Few links were made with the New Zealand-based populations of the communities under investigation. This situation is problematic because although New Zealand has a national curriculum, it is only structured to provide the necessary guidelines and directions schools must have in order to develop their own school-based programmes. The general nature of the decisions teachers have made are based on a perspective that is constrained, limited, and even dangerous. The implications of such a perspective are significant for Pasifika learners, who may, therefore, find the classroom alien, hostile, and self-defeating (Hernandez Sheets, 2005). Educational programmes need to be transformed to respond to the diverse ethnic representation found in classrooms. Part of that transformation requires educators to evaluate their own perspectives and the teaching decisions they make that are based on those perspectives. Pai (1990, cited in Gay, 2000) has asserted that, ‘how we teach, what we teach, how we relate to children and each other are rooted in the norms of our culture” (p. 229). Only by confronting those norms can teachers hope to provide the kind of programmes that will allow for the lived culture as well as the often silenced historical legacies that are representative of Pasifika students and Pacific Island Nations in New Zealand classrooms.

**References**


Rethinking initial teacher education through the new *New Zealand Curriculum*: Shifting thinking and teaching in social sciences teaching

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Abstract

Three educators involved in working with pre-service teacher education students, reflect on their experiences in challenging their students to work within a 21st century framework when designing practical social studies lessons for a group of children in a local school. These reflections are set within the literature around postmodernity, the knowledge society, and 21st century learning.

Introduction

Recent educational literature focusing on social and economic changes related to knowledge societies, globalisation and postmodernity presents the argument that a re-conceptualisation of knowledge and learning in educational policies and practices will be necessary to address the needs of 21st century learners (see Andreotti & Souza, 2008; Cope & Kalantzis, 2000; Gee, 2003; Gilbert, 2005; Hargreaves, 2003; Lankshear & Knobel, 2003; OECD, 2000; Richard & Usher 1994; UNESCO, 2005). Despite the contested nature of this debate and the denouncement of the complicity of the ‘knowledge society‘ discourse with neoliberal practices (see for example, Bauman, 2001 and Roberts, 2003), this emergent literature has started to shape educational reform world-wide, including the revised *New Zealand Curriculum* (NZC) published in 2007. Thus, one of the challenges of the implementation of the revised NZC over the next three years could be framed around the question of how to equip educators conditioned by 20th century thinking to understand and meet the needs of learners in the 21st century.

The case study presented in this article strategically featured the knowledge society and postmodernity arguments in the incorporation of the revised NZC, in an initial teacher education (ITE) social studies course – part of the Bachelor of Teaching and Learning programme (Primary) at the University of Canterbury. In doing this, the authors acknowledge the problematic nature of these discourses. However, they recognise the need for accessible strategies to support student teachers to understand the nature of societal changes happening as a result of globalisation, in order to make education, and social sciences, more relevant to learners in the current context in Aotearoa/New Zealand. Therefore, the authors have emphasised the possibilities opened by these arguments and the opportunities offered by the revised curriculum to pilot the introduction of new concepts and a new assessment aiming to equip student teachers to engage with complexity, uncertainty and diversity in their classrooms.
The development of the case study presented in this article is informed by poststructuralist ideas about knowledge, knowing, identities and research. The case study was a precursor to a larger research project on teacher education looking at the implications of shifts in the conceptualisation of knowledge and learning in current debates about education in the 21st century and the knowledge society. This article is divided into two parts. The first part outlines the strategic distinction between 20th and 21st century thinking used with the student teachers and the course assignment changes implemented as a way to incorporate the revised NZC in the course structure. The second part offers three situated analyses of researcher-practitioners investigating student teachers’ responses to the concepts and assessment and the learning process of implementing these.

**Incorporating the NZC in social sciences teacher education**

This case study investigates the process and outcomes of changing an assessment of a social studies module for primary education student teachers as a result of the incorporation of the revised NZC (Ministry of Education, 2007) based on the knowledge society/postmodernity argument. This was motivated by the assumption that the NZC could provide the opportunity for a major shift in relation to the conceptualisation of knowledge, learning and education in New Zealand contexts. One way this shift could be conceptualised constructs a distinction between the notions of delivering the 20th century curriculum versus meeting the needs of 21st century learners. In this case study, this distinction was used to make concepts accessible for student teachers who were unfamiliar with these complex theoretical debates. However, it is important to emphasise that this distinction is very problematic as it is based on several generally unexamined assumptions embedded in Western cultural traditions (Andreotti, 2010). Nevertheless, the argument was constructed as follows.

At a societal level, the notion of delivering the 20th century curriculum has its origins in an idea of society based on ‘industrial thinking’ (Andreotti 2005; Gee 2004; Gilbert 2005; Trilling & Hood 2001), which emphasises social stability, predictability, standardisation and homogeneity. From this perspective, knowledge is conceptualised as a substance or content – something that is stored in the minds of experts and that can be compartmentalised in disciplines and units to be transmitted in a linear and cumulative way. In this view, knowledge is what is objective, neutral and universal (based on the idea of a singular rationality or a singular, universal lens through which to understand the world). Thus, learning is conceptualised as the transmission of universal knowledge (i.e. fixed content) and assessment is the measurement of the acquisition of content through exams.

The notion of meeting the needs of 21st century learners originates from an idea of society that emphasises social complexity, uncertainty, diversity and contingency. From this perspective, knowledge is conceptualised as a verb or a process – something that is socially constructed and re-constructed in the different systems and contexts where people make meaning of themselves and their worlds (Gilbert, 2005). This view emphasises multiple perspectives/lenses, the significance of context, and the negotiation and distribution of knowledge in systems, networks or communities of practice. Learning is conceptualised as a process designed to enlarge learners’ mental maps and repertoire of strategies to deal with information, create knowledge, negotiate meaning in different contexts and, in the words of Claxton (2007), “cope comfortably with difficulty and uncertainty” (p.122). In this sense, what is relevant for students in the context of knowledge production becomes central to the learning process.
The notion of knowledge as context dependent construction of meaning implies an epistemological shift in terms of how education has traditionally been conceived in mainstream schooling. This shift demands a re-conceptualisation of education, where teaching is about equipping learners to make their own decisions about what to think and what to do, and to take responsibility for the effects of their actions in the different contexts in which they participate. Compared to the notion of knowledge as universal content, two educational approaches emerge - one that says ‘think as I do and do as I say’ as there is only one right answer, and another that says ‘think for yourself and choose what to do’ as the right answer will depend on the variables in the context in which you are operating (Andreotti & Souza, 2008).

This shift has several implications for teacher education. In terms of professional knowledge, the focus on subject specific content, methodology, developmental stages and practical activities necessary for the delivery of a standard curriculum needs to be shifted towards a critical engagement with multiple lenses/perspectives, multiple theories, multiple methodologies and multiple contexts of learning and teaching. According to Claxton (2007), this is necessary to give teachers a taste of what a more effective "epistemic apprenticeship” is, (p. 122). The skills necessary to deliver a standard curriculum are also different from those believed to meet the needs of learners in the 21st century. Delivering a standard curriculum requires teachers to be able to present and retrieve information, to focus the attention of learners on pre-determined tasks, to manage learning in order to assist learners to meet the standard learning objectives and to control behaviour. In this sense, teachers need to be competent to manage their classrooms, to deliver the curriculum and to report to the parents and to the schools.

On the other hand, meeting the needs of learners in the 21st century requires teachers to connect to their learners as individuals, and their communities as partners in the learning process, to be able to listen, observe and identify learners’ needs, to design context-appropriate learning processes, to justify their decisions, to assess processes, outcomes and gaps, and to negotiate these competing demands in complex school environments. From this perspective, teachers need to be multi-literate and competent to make education relevant to their students, to create and manage effective learning environments for diverse cohorts of learners, and to model the competencies s/he is trying to support learners to develop. In terms of awareness of difference, this shift represents a move from the need to understand the needs of diverse learners in order to help them to be included in the standard learning process towards seeing every learner as a diverse learner. In which case, teachers need to be able to connect and get to know their learners and their communities in order to effectively support them in their learning journeys, which will take different forms and reach different destinations.

**Case study: Shifting a social studies assessment in ITE**

This case study describes and examines the rationale for and piloting of an assessment based on 21st century thinking for a social studies course in primary initial teacher education. The original assessment task for social studies in this course required student teachers to plan two lessons to be delivered to a small group of learners in a primary school. In line with the requirements of the previous NZC, the procedures for planning involved choosing a ‘big social sciences understanding’ to be constructed in the course of the two lessons and one concept and two contexts to be taught (one context for each lesson). Student teachers‘ work was marked in relation to four dimensions: the planning of stages, the delivery of
the plan, the effectiveness of the plan in helping learners acquire the target understanding, and their reflections on the effectiveness of their planning and delivery.

In the professional conversations around the incorporation of the revised NZC into this ITE course, the first option that emerged was to keep the assessment as it was but add an extra box at the end of the lesson plan which would require student teachers to make connections between what they were doing already and the key competencies in the revised curriculum. This perspective was challenged by the idea that the key competencies could not be added at the end, but, according to the revised NZC, the key competencies should become the basis of thinking about the aims of the lesson. This prompted a conversation about curriculum decision-making that proved very fruitful. In examining the decision-making process involved in delivering the 20th century curriculum compared with meeting the needs of 21st century learners, two different types of processes were discussed in relation to the revised NZC: decision-making in curriculum planning and decision-making in lesson planning. What was observed in this exercise was that, in the previous NZC, the achievement objectives and area aims had been the main drivers at the level of curriculum planning in social sciences while the detailed achievement indicators had been the drivers for lesson planning. From the perspective of meeting the needs of 21st century learners the revised NZC would require curriculum planning to be grounded in the vision, principles, values and key competencies described in the document and negotiated with the school community (i.e. first part of the document). Following from that, lesson planning in social sciences should address the needs of the learners in terms of the key competencies through topics that should be relevant to the lives of the learners (in the contexts of their immediate communities and the wider society) that would, then, link to the area strands and achievement objectives of social sciences.

In order to translate the original assessment task into this new thinking, the starting point was the notion that the revised NZC requires teachers to know their learners. Thus, choosing a topic without knowing what is relevant to learners and planning to deliver a standard lesson to a standard audience would not be consistent with this interpretation of the NZC. Therefore, the focus of the assessment task shifted from student teachers delivering a standard lesson, towards student teachers making (and justifying) educational decisions according to specific contexts. As a result, course participants were exposed to the arguments related to delivering the 20th century curriculum versus meeting the needs of 21st century learners presented in the first part of this paper, and their implications for the interpretation of social sciences conceptual strands. The new assignment required student teachers to design and micro-teach two lessons to a small group of learners in a local primary school in a low decile (socio-economic) area: one needs analysis (diagnostic) lesson and one social inquiry lesson based on the previous needs analysis.

The focus of the first lesson was threefold: to establish a good relationship with the learners, to identify individual learners’ needs in terms of the key competencies and to gather as much information about their interests and contexts as possible in order to choose a context and learning objective for the following session that could be relevant to learners, address their needs in terms of the key competencies and meet achievement objectives for the appropriate overall level of the learners. Therefore, the first session was a fact finding exercise – not about ‘putting things in’ the minds of learners, but about ‘taking things out’. The second lesson, a social inquiry, had to be based on reflections on information collected in the first lesson: the educational aims and pedagogical strategies should be defined by the needs analysis of key competencies and the social sciences aims (i.e. concept and context) should be defined by the analysis of
learners’ interests and contexts and be articulated against the social sciences strands and achievement objectives.

The new structure of the lesson plan was designed to reflect this complex matrix of connections and model the thinking process for the student teacher. An inquiry model was used to support this process. Hence student teachers were given lesson plan structures with questions that required them to cross reference and justify all their decisions and carry out a meta-cognitive analysis of their own thinking processes by means of three reflective questions: What were the challenging aspects of this lesson planning process? What have you learned from this lesson planning process? What differences between delivering the 20th century curriculum and meeting the needs of 21st century learners could you identify? They had the opportunity to implement these lessons in a local primary school located in a low decile (socio-economic) area. The aim of the assignment was to model and evaluate student teachers’ thinking processes based on these new premises.

Most student teachers reported that this shift of focus in their assignment created a very different learning experience. The three analyses in the last section of this paper outline some of the features of this learning process and some of the challenges posed by the implementation of the NZC based on the strategic distinctions between 20th and 21st century thinking described in this paper.

Implementing the changes: Student reflections and responses

Three independent analyses of reflections and student responses to the course were carried out by three researcher-practitioners with different connections with the course: the course lecturer responsible for implementing the changes, a colleague also involved with primary initial teacher education and a practising teacher experienced in working with the idea of 21st century education and related pedagogical practices. In the spirit of the poststructuralist approach adopted in this paper, this multiple observer method of analysis was chosen with five effects in mind. First, it illustrates how the interpretation of each researcher-practitioner addresses different angles and priorities that reflect their own positionalities and relationship to the topic, to the student teachers and to the data. Second, it makes the situated, partial and provisional nature of analyses explicit. Third, it emphasises the fact that different interpretations open up different possibilities in terms of lessons learned from the process. Fourth, it encourages readers to acknowledge their own positionality and how that can frame their own interpretations. And finally, it leaves the reader with three different conclusions, inviting them to engage in a more open dialogue with the text in order to reach their own conclusions. The analyses presented in this paper have a common focus on challenges and lessons learned from the points of view of student teachers, researchers and the lecturer responsible for the course.

Jae’s analysis

My reading of the students’ responses to the challenges and learning from the assignment process is coloured by the professional conversations I had with the course lecturer as she grappled with the developments she introduced in the course, and the students’ responses to those developments. I was not involved with the students in any teaching capacity, so I approach their responses as an experienced teacher educator one step removed from the course and the students. The themes I identified reflect this
background and my interest in the areas in which student teachers develop over the duration of their programme of study. Given my background, it is perhaps not surprising that the themes I identified relate to curriculum (knowledge and processes), teaching (skills, processes and qualities), learners, and external factors.

For many students, there was a clear alignment between the challenges they described and the learning they identified. The table below summarises key ideas expressed by the students according to the four themes I have identified. Within the constraints of this paper, it is not possible to explain and discuss all the themes, or the ways I have summarised the students’ words. Bearing in mind the focus of this paper, I have chosen just the curriculum theme for further discussion.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Learning from the process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Curriculum - knowledge &amp; processes</strong></td>
<td>Inexperience with the ‘new’ NZC and how to use its elements especially the key competencies, inquiry learning and achievement objectives. The complexity of the process of planning using the NZC along with knowledge of the children.</td>
</tr>
<tr>
<td><strong>Teaching - skills &amp; processes</strong></td>
<td>Constructing suitable tasks and activities that are relevant to and interesting for children. Managing fidgety children. Thinking on your feet. Responding to children; Questioning effectively. Building rapport. Being flexible.</td>
</tr>
<tr>
<td><strong>Teaching Qualities</strong></td>
<td>How to be a teacher – taking on a teaching identity.</td>
</tr>
<tr>
<td><strong>Learners</strong></td>
<td>Getting to know the children in a limited time. Establishing effective relationships. Being a teacher rather than a friend. Analysing needs in relation to the key competencies.</td>
</tr>
<tr>
<td><strong>External factors</strong></td>
<td>The task itself. The organisation of the teaching experience with the children. The setting – in a low decile school, the hard floor to sit on, the distractions. Time. The children – special needs, behaviour, disabilities.</td>
</tr>
</tbody>
</table>

Table 1: Connection between challenges and learning identified by student teachers
As first year student teachers in the first semester of their programme, it is not surprising that the students reported finding the revised NZC a challenge. Not only was it a challenge because of their unfamiliarity with it, but perhaps also because it was presented as being founded on a different set of assumptions about knowledge than students may have been exposed to in their own schooling. In their responses, many of the curriculum challenges identified related to inexperience with the NZC and its various components. The students recognised the complexity involved in creating and implementing lessons that reflect these components, as the following quotes indicate:

One of the challenging aspects [...] was finding something [...] that related to the students’ common interest of sports and with that include a key competency, a strand, an achievement objective, a concept/context, use a social inquiry approach and include a bicultural perspective that all work in with the students ages. ST11

There is so much more to planning a lesson than I originally thought. ST2

It made me aware of how much depth there is in a lesson and how much planning I will have to do in the future. ST11

Also evident in students’ reflections were traces of key concepts that had been developed in the course, in particular the notion that planning and teaching must start from knowing the learner. The expectation that the students would take into account the interests and needs of their group of children added considerably to the complexity of the planning task. One of the most often cited challenges mentioned by the students was that of getting to know their group of learners sufficiently to plan for them. Comments about knowing the learners related to the need to analyse the children’s needs and interests in order to connect them to the key competencies and social studies concepts.

For me, I really struggled with getting an understanding of how we were meant to get a social sciences topic that related to the needs of the children. ST2

This notion of starting from the children's interests was challenging for a number of students who struggled to make links from these interests to the curriculum achievement objectives and the key competencies.

I found it challenging to get to know them and find out what they needed to learn in just 45 minutes. ST17

The most challenging part [...] was analysing the students’ needs and assessing the key competency needs of each student … ST19

However, this was also an area of learning, and it was encouraging that the majority of students indicated an increased awareness of the centrality of the learner to the learning (and teaching) process.
The first major lesson for me is how important it is to try and relate topics to the children’s cultures and contexts. ST13

[I learned that] a lesson that does not relate in any way to the child directly does not stay with the child. ST6

The key competencies were introduced in course content as key drivers in the revised NZC, and were highlighted in the students’ responses as the source of challenges in the planning process, but also as an area of learning.

I have come to understand the key competencies to a greater extent. ST5

The key competencies are essential for children’s learning needs today… ST12

Of course it will take more than this one experience to develop these novice teachers’ understandings of the revised NZC and its implications for approaches to planning and implementing learning experiences for children. Despite the encouraging messages from the reflections in relation to the aims of the course, it was also clear that while the students may be able to ‘practise’ some of the rhetoric of the revised NZC, there was also slippage between the knowing and the doing. Some students were able to identify this in the challenges they described.

I had to change my activity for the second session because the first one I had planned was in accordance with the old curriculum and I was going to ‘pour in the knowledge’ that I thought the children should have known. ST8

When looking at the finished products of each child, I had to be not too judgmental as each child had different strengths. ST20

The challenges involved in shifting educational practices from a still dominant 20th century model towards a 21st century model are acknowledged in the literature. Trilling and Hood (2001), for example suggest that unless there is widespread systemic reform, “the pull’ of the old paradigm tends to reabsorb forays into the new order” ensuring that “the small advances we make in changing our methods eventually slip back into old and familiar Industrial Age habits” (p.17). It seems to me the NZC has the potential to establish a ‘new order’ in education by working bottom-up through the hearts and minds of teachers. However, it is going to take time and ongoing commitment and effort by teacher educators to foster and model 21st century teaching methods while also grappling with 20th century institutions and systems.

Margaret’s analysis

In responding to the student teachers’ reports of their lessons learned, challenges, and understandings of the revised NZC, I was reminded to examine the lens I was using to view them through. I came to teaching in my thirties through the work with a diverse (minority) social group who challenged my previously unexamined ideas about knowledge, understandings and interactions. I have, for the past six years, been working at a secondary school in New Zealand whose special character is grounded in 21st
century education. In this school, learners and teachers have a much greater degree of autonomy in comparison with mainstream schools. But this autonomy also demands a new identity as a teacher and a new set of responsibilities: I am expected to meet the needs of individual learners, to help them to understand themselves as learners, to negotiate curriculum with them, to make learning experiences relevant, and to use ICT to create learning opportunities. My position as a teacher in this school makes me acutely aware of the difficulties and tensions between 20th and 21st century thinking and doing within educational institutions.

The responses of the first year student teachers revealed such tensions - in particular their desire to follow the type of teaching/learning experience expressed in the revised NZC and to reconcile that with the years of their own experience in another type of educational environment. Many of these student teachers have come through a system that existed within the framework of 20th century education described in the first part of this paper. This framework constructs specific notions of teachers and learners: teachers hold the knowledge to be transmitted to learners, while learners should sit quietly doing their work and repeat the understandings transmitted by the teacher.

In their reporting about understandings of the revised NZC the excitement of the student teachers was evident. Most expressed enthusiasm in relation to the dynamic nature inherent in the 21st century way of thinking about education and reported an opening of possibilities through the attention paid to learners' needs and interests, and the use of creativity, facilitation (as opposed to transmission), and multiple perspectives in educational design.

There is far more freedom to choose activities and strategies rather than stick to a particular structure. There is flexibility in how we deliver our ideas and try to make the lessons relevant to the children. I can treat every child as an individual, yet allow the class to work together to achieve a common goal. ST10

However, when comparing their enthusiastic responses to the question about the curriculum to the questions related to challenges and lessons learned, I found a number of contradictions. In my analysis, I refer to three of these contradictions that revolve around the theme of being excited about the new, but reverting back to the old frameworks.

**First theme: Student engagement versus teacher control of learning**

I found in my first lesson I was not confident in managing the students and although the lesson went alright I came away from it feeling like I wasn't really in control of it. But looking back I could see this was because I was more trying to befriend the students than teach them and therefore they were taking a larger part in the decision making of the first lesson than was intended. ST10

The student teachers’ concerns over behaviour and learning control seemed to capture a great deal of the energy during their time with the learners. Learners wiggling, needing to move, being distracted, did not seem to fit with the image they held of how appropriate learning should take place. The assumption seemed to be that the less engaged the learners were in their lesson, the more control the student teacher
wanted over the learners’ focus. For me, a 21st century perspective relies on the assumption that learners will be engaged if they are involved in the decision-making process of the curriculum and if they find that learning is relevant and meaningful in relation to their experiences. In this sense, the notion of engagement from a 20th century perspective could be interpreted as learners’ respect for the authority of the teacher and his/her expertise in making decisions on behalf of learners. From a perspective based on 21st century thinking, engagement is aligned to the development of learner autonomy and responsibility over the learning process, with the teacher as a guide in learning how to learn.

Second theme: Delivering content versus meeting the needs of individual learners

It was difficult to think of a topic because my three children were all so different. ST2

It was a challenge to plan a lesson around a concept which I felt the children would benefit from, but also one which I would feel confident delivering. ST17

Student teachers seemed to experience a tension between meeting individual needs and interests and the desire to teach content. While they were asked to base their lessons on individual learners’ needs and interests, the responses showed that the preoccupation with standardised content transmission, order and uniformity of learning was still the main driver of pedagogical decisions. If their perceptions of learning and teaching are based on 20th century thinking, it would be unthinkable to imagine a learning design that enabled learners with different needs and interests to engage with different content, leading to different outcomes, in the same educational setting.

Third theme: Expectations of knowledge of learning

I struggled to get the children to think outside of the square. ST6

They weren’t aware of how to evaluate their work. ST1

The student teachers’ description of learners’ awareness and ability to discuss their own learning reflects their expectations both in relation to their role as teachers and the role of learners in the learning process. This trend could be interpreted as indicating that student teachers did not expect they had to teach ‘learning about learning’ in their roles as teachers, while learners should already have acquired skills, knowledge and language in that area. In the context of addressing key competencies in the revised curriculum, these assumptions seem to reflect an uninformed understanding of the learning process of developing competencies. The notion of teaching as content transmission and learning as repetition can again be read into these assumptions, as illustrated in the quote below which presents the work on competencies as a distraction to the real point of a lesson:

Delivering the concepts by the new curriculum standards is enlightening, but it can be easy enough to get distracted from the point of the lesson. ST14

For me, being confronted with these tensions raised many issues about the implementation of the revised NZC. While it will be relatively easy for people to grasp and repeat the slogans of 21st century education,
practising and living out this new reality may prove very difficult. Implementing the curriculum in a responsible way that respects the intent of making education relevant to 21st century learners, will require an informed and extended effort to continuously identify and challenge 20th century ways of thinking, being and doing in the classroom. This effort will also require teachers to redefine their roles as learners and knowers and to be comfortable with change, uncertainty, complexity and all the messy implications that come with that.

**Vanessa’s analysis**

In this paper, as a course lecturer, I report on my own response to student reflections and reactions to the changes in the course, focusing on the idea of learning to relate to difference as ‘difficult knowledge’ (Britzman, 1998). This analysis reflects my own situatedness (and learning priorities when this course was delivered) as a non-white immigrant, newly appointed senior lecturer working with a relatively monocultural group of student teachers. Therefore, my analysis is situated both within a context of sustained contact with this cohort of student teachers and within a theoretical framework (i.e. postcolonial theory and poststructuralism) that makes my subjectivity more explicitly inseparable from my analysis. My experience working with global and anti-racist education in international contexts (i.e., Latin and North Americas and Europe) and my commitment to education as an ‘uncoercive rearrangement of desires’ (Spivak, 1999) also inform my interpretations of events and responses in this section.

Teachers’ (lack of) sensitivity in relation to student diversity has been an emerging theme in teacher education literature (see, for example, Nieto, 2003; and Howard, 2006). Within the 21st century framework described in the first part of this paper, meeting the needs of diverse learners is a driving force of a curriculum focused on building the potential of different individuals to contribute to knowledge economies and societies. This focus on diversity, from a postcolonial lens, can also be interpreted as a call for epistemological pluralism, where what is prioritised is not the production of potential economic outputs, but teachers’ ability to relate to difference, to engage in dialogue and to negotiate competing perspectives and power relations in complex and diverse classroom environments in ethical and respectful ways. From this perspective, student teachers’ ‘discovery’ of diversity, documented in their reflections, can be interpreted as a telling indication of the influences described as ‘20th century’ in the first part of this paper:

[I’ve learned that] all students are different. ST18

[I’ve learned that] all students will be different and require different teaching approaches. ST15

I worry what it would be like if you had 30 children with dissimilar interests. ST14

Student teachers’ expectations of sameness prior to this assignment can be interpreted as a confirmation of the conditioning force of discourses of standardisation and assimilation that have permeated the 20th century framework described in the first part of this paper. These discourses tend to frame difference in terms of deficit in relation to ‘normal’ standards and to construct student teachers’ aspirations for a homogeneous classroom of children (and of families) with similar needs, interests and objectives, possibly
reflecting the constituency of their own cultural groups or their own educational experiences in monocultural schools.

These aspirations for homogeneity could be the basis of student teachers’ resistance towards working with a low decile (socio-economic) school in this assessment task. As the assessment was introduced to the class, a general disappointment was evident and a significant number of course participants voiced their preference for performing their task in higher socio-economic schools. On the one hand, this is understandable if student teachers have not been exposed to diverse social groups or social realities in their lived experiences to date. In this case, they would not feel confident to engage with diversity and would, therefore, tend to avoid engagement, creating a closed ideological cycle, which tends to be reinforced in their social networks, and which is not easily broken by individual will or planned instruction.

On the other hand, this resistance could be based on, and reproduce, a deficit notion of difference where teachers’ expectations of diverse children are adjusted according to stereotypes and preconceived ideas of specific social groups. In this case, it is my ethical and moral responsibility as a teacher educator to address and challenge these constructs. Therefore, I dedicated a good part of the course to the deconstruction of deficit thinking. However, despite my efforts, deficit thinking was still confirmed in a few of the student responses to the assignment, such as:

I learnt that it is easier when teaching younger children/low decile children to keep my lessons simple and easy for the children to understand. ST5

At the time, their resistance to working with a low decile (socio-economic) school created an ethical and a pedagogical tension for my role as a teacher educator. The ethical tension was related to the cultural safety of the children my students would be working with within a multicultural environment: what risks were involved in exposing children to my students if they were unprepared and unwilling to work with socio-cultural diversity? The pedagogical tension was related to my role and responsibility to develop student teachers’ confidence to relate to diversity in a context where, in my position as a non-white ‘foreign’ lecturer, I could also be framed in deficit terms as a teacher educator. The negotiation with the student teachers was not easy in this sense. As I asked them to engage with their own assumptions, privilege and identities in order to be open to connect to the lifeworlds of the children they would be working with, I was challenged to justify my practice at many points of the process (i.e. some implied that I did not know what I was doing). On two specific occasions my authority as a lecturer was also explicitly questioned (i.e. who was I to ask something that no one else was asking them to do?). Student teachers complained that the assessment task was too difficult and one student remarked that the kind of knowledge I was asking them to demonstrate would only come ‘with age and experience’.

Throughout this difficult process, I questioned myself and my practice and sought insights from colleagues and from the literature. My training in poststructuralism and postcolonial theory kept me well away from fixed developmental models of cognitive development in identity/alterity construction, as well as the idea that what I was asking was too much for my cohort of students to cope with or that I ought to please them in my role as a lecturer. In fact, it was in the tensions with this group that I scrutinised and confirmed my assumption that it is often what is difficult and what causes discomfort in education that makes education truly worthwhile in opening new possibilities for knowing, thinking, being and relating;
in other words: meaningful learning can be painful. But, how could I get this across in a customer-oriented environment where student teachers believe in their right to demand easy and simple ‘evidence based’ answers or methodologies that can work across contexts with immediate, unproblematic and measurable outcomes? My own contradiction was that, in my position as a newly appointed staff member, I still also desperately wanted to have these outcomes myself to show (despite knowing better from years of experience in this kind of learning process in other institutions).

In the literature that I engaged with as a result of these tensions, I found some new ideas and resonance of concerns and strategies in the works of Britzman (2006)\textsuperscript{4}, Jones (2001) and Bell (2008). Insights from psychoanalytic work in education proved useful in the interrogation of why the participants’ responses to the strategies I was using did not seem to match my expectations. This literature leads to the conclusion that the emotional and psychological investments of my student teachers in 20\textsuperscript{th} century subjectivities and aspirations (which are probably the basis of their choice to become teachers) can only be deconstructed by the individuals themselves through an uncomfortable and painful – but also exciting and liberating – continuous process of self-analysis. From this perspective, my role as an educator would be to create learning environments and to design learning processes that would support learners to start engaging with this ‘difficult knowledge’ about themselves and their complicity in the problems they are trying to address. My work would involve teaching student teachers the tools with which to engage with difficult knowledge, not the answers, and I should not expect any immediate or easily measurable outcomes of this process as its effects could take years to surface.

As I started to (re)cultivate my resignation in relation to the reality of not having immediate measurable outcomes of this process to show or even any guarantees that there would ever be (or that I would ever see) any long term results, a set of student responses made me realise that I was forgetting something extremely important. These responses reminded me that between my own educational dreams and aspirations and the work to be done on the ground lies an uncomfortable, complex and exciting space, that both my students and I inhabit together as learners:

[I have learned that] as teachers, if things do not go to plan it does not mean we are a failure but the important thing is to reflect upon our lessons so that we can better understand what worked and did not work and why. […] I realised that as teachers we cannot account for and control everything […]. ST9

[I've learned that] It is important to understand that each student has different needs that need to be looked at in order to make the planning flexible [so that] teachers can make changes in response to new information, opportunities or insights. […] Having to take into account the different learning needs of each student helped me to realise just how challenging teaching can be. ST6

[I have learned that] if I can broaden my own knowledge then I am able to teach children a broader range of ideas. ST20

[I have learned that] before I can teach a lesson I need to understand the children and know what they are like and interested in. […] I need to identify a way of incorporating that
into the curriculum. [...] because the schools of today are multicultural, we need to keep an open mind and not force our culture and values on other people. ST7

Conclusion

The partial and situated nature of the three reflective analyses above, in keeping with a poststructuralist ethos, highlights the subjective connections between the observer and her choice of focus when approaching the data. This invites readers to engage with multiple possibilities of interpretations and conclusions.

Changing the assessment (and course focus) in the ITE social studies course seemed to be effective in prompting the student teachers to interrogate some of their taken-for-granted assumptions and understandings about teaching and the work of teachers when responding to the needs of 21st century learners. The role and importance of theory, conflict and cognitive dissonance in this learning process deserves further investigation. These aspects have been identified in other studies and in the Best Evidence Synthesis Iteration (BES) as pivotal in shifting teachers' beliefs about teaching and learning (Timperley, et al., 2007). With the emphasis on effective responses to complexity, diversity and uncertainty in knowledge societies, these aspects should become central to the implementation of the NZC in teacher education. However, if an institutional culture of instrumentalism, anti-intellectualism and/or student resistance is dominant in a particular institution, it may be too risky for lecturers to choose pathways that may compromise their esteem, collegial relationships or career progressions.

Working with theory in ways that prompt conflict and cognitive dissonance required students and lecturers to engage with a number of tensions. The three interpretations offered in the last section highlight tensions related to student teachers' espoused new understandings of 21st century education, and their reflections on their developing practice as novice teachers. Closing this gap between 'the rhetoric and the reality' is an ongoing challenge in all professional learning. This challenge becomes more pronounced in relation to the implementation of the NZC as teacher educators, teachers and student teachers try to imagine a type of education that they have probably not experienced themselves. The three analyses suggest that a shift of thinking from 'delivering the 20th century curriculum' to 'meeting the needs of 21st century learners' requires time, spaces where students can experiment and make mistakes, and ongoing commitment to changing structures of thinking, feeling, being and relating in educational processes and systems.

In addition to considering the student teachers' shifts, this project has also prompted us to reflect on our understandings and critiques of 21st century knowledges and learning, how we enact theory, the possibilities of the new NZC, and the implications of this for teacher education. These interests are taken up further in the project, Investigating shifting conceptualisations of knowledge and learning in the integration of the new New Zealand Curriculum in initial and continuing teacher education, funded by the Teaching and Learning Research Initiative. The case studies developed in this project will be published in 2010 and 2011.
Notes

1. The authors also acknowledge the published critiques that denounce the location and complicity of these discourses with(in) neoliberal structures and processes that dehumanise education and relationships by placing market forces and a teleological _neocolonial_ notion of time and history at the heart of the call for educational change.
2. This research project fulfilled the requirements of the Ethics Committee of the College of Education of the University of Canterbury and sought informed consent from all student teachers who participated in this study.
3. The term _student teachers_ is used to refer to course participants and the term _learners_ is used to refer to primary school students.
4. I would like to acknowledge my colleague Dr Kathleen Quinlivan for pointing me in the direction of psychoanalytical work in education and my assistant Jane Mountier for supporting the analysis process.

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References


Higher education, employment and globalization:
The cases of Mexico and Thailand

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Abstract

Throughout history, education has been viewed and institutionalized (as schooling) from various perspectives. Different underlying philosophies and ideologies have shaped national education systems. The same is true for universities and other institutions of higher learning. The role, mission and vision of the university have changed, as has the idea of the educated citizen. The interrelations between the state, the market, civil society and institutions of higher education are complex and not without tensions when taking place in specific national contexts. From the standpoint of globally interconnected economies, these relationships are amplified and expanded onto a global scale. Other intriguing linkages between the political economy, the labor market and university graduates exist. This article provides insights from the Thai and Mexican perspectives. Firstly, the authors present a brief historical review of higher education and political economy in this era of globalization. Secondly, they describe the context of the national economies of Thailand and Mexico, and thirdly, they report and discuss the findings of their research.

Introduction

According to Newson and Buchbinder (1988) there have been four competing visions of higher education since the end of the nineteenth century – universities: as an academic haven; as tools for economic growth; as a means for social transformation; and as a service organization. Following the liberal education tradition, the first model is concerned with maintaining the pursuit of knowledge – viewed as the pursuit of truth – in a pure environment of academic excellence and autonomy, free from external contamination, economics, politics and the like. The second vision, taken from human capital theory, holds that higher education must provide intellectual, scientific and technological capacity, and prepare professionals to facilitate national economic growth. A special emphasis is put on emerging knowledge-based societies. The third vision, the university as a means of social transformation, focuses on the responsibility, or obligation, to help guarantee equal educational opportunities and promote social and environmental justice. The social transformation vision promotes critical analysis, creativity and active participation. The first three models are all based on specific values in the academic community. The fourth vision, that of the service organization, has become the dominant model. The university is perceived, treated, and operated as a business. Academics are entrepreneurs and knowledge is a commodity. Slaughter and Leslie (1997) refer to the service university as the _entrepreneurial_ university, acknowledging the same main features, and including the phenomenon of _academic capitalism_, a term which describes the market-like behavior of the institution, the aim of which is to attract grants and external funding. This vision has transformed academic life.
Schugurensky (1999) proposes the concept of the heteronomous university, in opposition to the autonomous university. He suggests that this type of institution is subject to a great deal of external control and imposition. The heteronomous university encompasses characteristics of the commercial (service university) and the controlled (accountable or responsive) university. The commercial orientation demands a redirection of teaching and research in order to comply with industry and the job market. Elements of the commercial university include cultivation of private and foreign universities, customer fees, client-oriented programs, cooperation with business, corporate rationality, casualization of labor, and contracting out. Elements of the controlled university include cutbacks, conditional funding, and coordination (of both collaboration and competition).

According to Schugurensky, the process of transition from the autonomous to the heteronomous university is not linear and smooth. Resistance from supporters of alternative higher education visions is likely, especially when these institutional changes are not the result of a consensual process among all the members of the academic community. Furthermore, a market-driven university could also have a negative impact on the higher learning community. Of concern, is the division into richer and poorer disciplines, as the applied sciences attract more funding opportunities. This could lead to an exclusive focus on market-oriented research and the consequent neglect of other areas of knowledge generation, such as peace, health, environmental and social justice studies. In addition, the traditional academic values and practices (e.g., free flow of knowledge, collegiality, autonomy, academic freedom, and protection of the common good) might get distorted, or even disappear, for the sake of competition. The question Schugurensky poses is:

Do universities have a social responsibility? If so, what exactly does this mean? It could mean that universities have an obligation to nurture democratic, caring citizens and to promote the common good through processes of knowledge creation and dissemination and through the development of decent institutional values. Unfortunately, the heteronomous university is becoming less an affordable and accessible public institution that encourages critical thinking and moral responsibility and more a private business, less accountable to the public interest and more beholden to private interests. (Schugurensky, 2006, p. 315)

In order to understand why and how this consolidation as a hegemonic model could occur, we would have to examine more closely the interrelations between higher education, economy and corresponding policies on both national and international scales but this is not the main purpose of this study. It is safe to state that the neoliberal mode of the market-driven economy is the predominant one on the globe. Its discourse has proven very successful in its pervasiveness, its integration into everyday life and its acceptance as the only viable way to understand the world (Harvey, 2005). This vision has also shaped how higher education institutions are being viewed and accommodated into this perspective of global neoliberalism.

The General Agreement on Trade in Services (GATS), developed by the World Trade Organization (WTO), proposes a liberalization of the higher education sector which signifies the creation of a multimillion dollar market segment (Robertson, 2003). Philip Altbach (2003) notes that this would benefit only US institutions by helping to expand their already advantageous positions abroad. The World Bank even cautions against the overestimated effect of the free market mechanism in its 1999 world...
It is also assumed, from the neoliberal stance adopted by some scholars and the public, that national education and professional training systems provide internationally competitive advantages if their quality corresponds to international standards. Questions arise: To what extent can education improve productivity? To what extent can education contribute to personal and professional fulfillment? Can, and if so, how can, education - or the education system - promote the generation of jobs, or employment? We acknowledge that the changing relationships between education and the labor market require further research and analysis. In order to further examine these issues, we will focus on two quite different societies – Mexico and Thailand

**Mexico and Thailand: International context and economies**

**Mexico**

Traditionally, Mexican foreign policy has been distinguished by a high degree of political independence from foreign pressures. Thus, in spite of Mexico’s economic vulnerability and United States political constraints, there has been continuity in external behavior and in the defense of the _basic principles_ of foreign policy. This has given Mexico international recognition in multilateral forums, such as the United Nations (UN). Although a causal relationship between international isolation and domestic economic crisis, on the one hand, and between more international participation and economic prosperity, on the other, has been pointed out, Mexican foreign policy has been influenced by the country’s model of economic growth.

An explicit commitment to economic liberalization and a new style of government substantially improved relations with the United States, which had been tense even under the previous administration. The implementation of economic liberalization in Mexico – which eventually led to the North American Free Trade Agreement (NAFTA) – marked the beginning of public recognition, on the part of the Mexican government, of the existence of common interests with the US government. NAFTA resolved what, in the post Cold War context, seemed to be the dilemma of competitive participation in a global environment versus isolation and backwardness.

In order to harmonize domestic and foreign policies, the government promoted the country’s participation in the international markets of goods and capital. The outcome of this approach, according to the government, was that Mexico would undergo accelerated economic development and improve its international position. Once domestic and foreign economic policies were made compatible, Mexico would reap the benefits of the globalization and of economic interchanges within the thrust of the country's new openness. In this context, structural reforms were proposed to stabilize the economy domestically, and to ensure the entry of foreign capital and investment that would allow the flow of resources needed to finance economic growth and keep the economy healthy. Following a policy of diversification of its trade partners, Mexico extended its presence in almost all regions of the world, but especially in Latin America, Western and Eastern Europe and North America.
The reorientation of foreign policy in the first half of the 1990s relied chiefly on economics, but also involved the willingness of the government to act in the politics of the international arena. This is evidenced by the active participation of President Salinas in international policy, including more than 250 direct meetings with other heads of state and government between 1991 and 1992. Mexico hosted all Latin American countries as well as Spain and Portugal at the Summit of Guadalajara (Blanco, 1994).

In addition to NAFTA, Mexico proposed, in 1990, at a meeting of the ALADI (the Latin American Organization for Economic Integration), a new framework to stimulate economic integration in the region that was based on the adoption of regional economic liberalization policies. The proposal was, according to the Mexican government, to promote free trade with the greatest possible number of countries and regions that were willing to reciprocate the Mexican commercial initiative. From 1989-1994 the government mainly pursued explicit bilateral agreements that stressed the specific economic character of regional integration. Under this scheme, Mexico participated in the meeting of the G-3 (Mexico, Colombia and Venezuela) aimed at promoting mutual economic integration and the continuation of the tasks of pacification in Central America. Furthermore, after 16 years of non-diplomatic recognition, Mexico re-established relationships with Chile, in March 1990, and immediately promoted the negotiation of a free trade agreement. The reason for this seems to lie in the identification of a shared economic project: modernization through economic liberalization (Ivanova, Gámez & Ángeles, 2003). Also important in this context are the Free Trade Agreement with the European Union in 2000 and the positive response of the Organization for Economic Cooperation and Development (OECD) to Mexico’s membership of the Organization in 1994. According to the Mexican government, this acceptance confirmed the permanency and seriousness of economic reform.

The quest for relations with dynamic economies also spread to Asia through the Pacific Basin and Mexico became a member of several organizations, such as APEC (Asian Pacific Economic Council) in 1993. Mexico's presence in APEC was underlined when the country hosted the Economic Leaders' Meeting in Los Cabos in 2002. At that meeting, the APEC economies accepted Mexico's proposal to support micro, small and medium enterprises (SMEs) in the areas of micro financing, areas of opportunity, and the removal of obstacles to their development. Thus, Mexico has played an active international role, as reflected in the country's greater integration with international markets, and – in the sphere of international policy – in its participation in international multilateral forums and organizations.

In the last few decades, services have accounted for about two-thirds of Gross Domestic Product (GDP), led by community and social services (about 21%), financial services (13%), and communications and transport (11.4%). Industry generates a little over one-quarter of GDP and is dominated by manufacturing (about 21%), followed by construction (5%). Agriculture generates only 4% of GDP, but employs 23% of the labor force, a higher proportion than manufacturing. Mining represents 1.2% of GDP, a figure which greatly understates oil’s importance, particularly for government revenues, but also for export. About 13% of GDP is accounted for by the informal economy, which generates about 17% of profits.

According to a recent evaluation by the World Trade Organisation (WTO), since the Organization's 1997 review of Mexico's trade policies, the country has become a prime example of the role that trade and foreign investment can play in economic modernization and growth. Mexico's use of international
agreements as a means of leaving behind past, inward-looking policies has, in the WTO's opinion, generated a virtuous circle of deregulation, structural change, growing productivity, and higher per capita income. In turn, these reforms have made Mexico more attractive as a trading partner and foreign investment destination. The process has been grounded in both unilateral initiatives and multilateral agreements, together forming an aggressive policy of reciprocal liberalization, such that most Mexican trade is now governed by preferential rules under free-trade agreements (FTAs).

As a result of Mexico's liberalization strategy, a significant gap has opened between trade conditions offered to most-favored-nation (MFN) and FTA partners. Insofar as tariff differences between the two have widened since 1997, the possibility of net trade distortion has arisen. Also, even though Mexico's FTAs are both numerous and extensive in coverage, there are still obstacles to the free flow of goods in some sectors, where some inefficiency prevails (Rangel & Ivanova, 2003). Thus, the WTO suggests that further progress on structural reform is a precondition for achieving and sustaining rapid growth and, with it, to raise per capita incomes to more acceptable levels.

Mexico’s recent macroeconomic indicators show inflation falling from 16.59% in 1999, to 5% in 2002, while recorded unemployment rose slightly in the same period, from 2.51% to 2.7%. Government consumption has moved slightly upwards, from 11.01% to 11.80% of GDP. Fiscal deficits were moderate, notwithstanding the economy's strong performance, as the budget has shown a small deficit of 1.15% of GDP in 1999, and 1.17% in 2002; that year, public debt stood at 22.77% of GDP. A compromise fiscal package, adopted by the Congress for 2002, was apparently insufficient in increasing tax revenue, so that the government is now seeking further tax reforms. Mexico's fiscal position thus remains exposed to fluctuations in petroleum revenues (about one-third of the total), and to significant contingent liabilities. Therefore, the government continues to prioritize deficit reduction, inflation control, and debt management over growth and employment creation (Lederman, Maloney & Servén, 2005).

NAFTA is of paramount economic significance for Mexico, whose main commercial partner is the United States. In 2006, the country’s northern neighbor absorbed about 85% of exports and provided almost 64% of imports. Exports to Canada were about 2% of total exports, followed by Spain (1.4%) and Japan (1%). Other than the United States, main suppliers were Germany (3.3%), Japan (2.5%), and China (1.9%) (Ministry of the Economy, 2006).

Thus the growth of the Mexican economy depends on the performance of the world economy, particularly that of the United States, and on carrying out a number of important reforms that have been pending for years, notably in the hydrocarbon and electricity sectors.

**Thailand**

Thailand's international participation is important, especially on a regional level. After gaining its formal independence from European empires, Thailand, located in Southeast Asia, has developed an active and influential foreign policy in the region, especially since World War II. Following 1945, its performance has been strongly influenced by geopolitical factors, among which the independence movement in the region, the Vietnam War and the confrontation between the United States and the Soviet Union, stand out.
The political and ideological affinity of Thailand’s ruling military class with the position of the United States determined two directions in Thailand’s relationship with its neighbors (Satha-Anand, 1999). On the one hand, the country maintained an anticommunist foreign policy that specifically confronted Vietnam, Laos and Cambodia; on the other hand, it consolidated links with countries with ideological similarities. This resulted in the formation in 1967 of the Association of South East Asian Nations (ASEAN) during the Bangkok meeting attended by foreign ministers from Indonesia, the Philippines, Malaysia, Singapore and Thailand.

ASEAN responded to the need to promote peace and stability in a highly unstable area. Thailand participated strongly in the proposal to declare ASEAN a zone of peace, liberty and neutrality – a proposal which was signed in 1971 in Kuala Lumpur, Malaysia. It also played an important role in the preparation of the Treaty of Friendship and Cooperation, signed in 1976 in Bali, Indonesia which, in conjunction with the Bangkok Declaration, became the basis for the objectives and the principles of the association. Both Thailand and the Philippines proposed the creation of the ASEAN Regional Forum (ARF) and the creation of the Treaty on the South-East Asia Nuclear Weapon-Free Zone (SEANFWZ).

Thailand’s activism inside ASEAN has resulted in an economic emphasis, focused mainly on investment and trade. Once the cold war ended, this led to the approval by the Association's chiefs of state, meeting in the fourth ASEAN summit conference in 1992, of the Thai proposal to create an ASEAN Free Trade Area (AFTA). In 1995, when Thailand was head of the fifth ASEAN summit conference, an emphasis on social cooperation determined that the yearly statement revolve around shared success through human development, technological competitiveness and social cohesion (Nagai, 2003). During the association’s informal summit in 1997, Thailand played an important role in the adoption of ASEAN Vision 2020 and during the Asian crisis in 1998, the Thai government pointed out the need to create a framework for an effective and novel form of cooperation in order to face the economic crisis in the region. Particular emphasis was placed on the development of human resources, information technology and infrastructure, sustainable development, the environment, and a lessening of the social impact of the financial crisis through the elimination of poverty and a decrease in socioeconomic inequality (Rangel & Ivanova, 2004).

Thailand’s role has extended to other cooperation projects in the Pacific Rim, such as the Asia Pacific Economic Cooperation forum (APEC), where it was one of the twelve founding members in 1989; the Pacific Economic Cooperation Council (PECC), the Pacific Basin Economic Council (PBEC) and the Pacific Trade and Development Conference (PAFTAD). Thailand’s position has been clear, and presiding over APEC in 2003 allowed it to influence the forum’s agenda. The organizations and forums in which Thailand plays a major role are the following: ASEAN Free Trade Area (AFTA), BIMSTEC Free Trade Area (BIMSTEC FTA), CHINA-ASEAN Free Trade Area and The Asian Community (Sakhornrad, 2006).

Traditionally an agricultural country, Thailand depended, during the beginning of its development in the 50s (as did other countries in the region), on a manufacturing industry based on encouraging private investment and attracting foreign capital on the basis of import substitution. During the 80s Thailand developed an increasingly important manufacturing sector focused on exports, based on low-cost labor-intensive processes, such as the textile and clothing manufacture. However, in the following decade the production of computer parts and motor vehicles became more prominent. Thailand has followed the path
of Singapore, Taiwan and Korea, which had previously become important producers of high technology goods. At present, nearly half of Thailand’s gross domestic product (GDP) is generated by the manufacturing industry, while 80% of exports consist of manufactured goods dependent on imported materials. Manufacturing employs approximately 15% of the workforce; 4.75 million people, of a workforce of 34.4 million.

Primary production continues to be important and is a major contributor to both employment (45% of the total) and to the diversification of production and exports. Agriculture generates a little over 12% of GDP. Thailand is one of the world’s main producers of rice, tapioca and rubber, and has major mining deposits, with tin foremost, making Thailand one of the major world producers (OECD/IAP, 2003). Mining generates a little more than 2% of GDP although employment is low (40,000 jobs).

Thailand’s GDP increased in 2003 to 5.4 billion baht (equivalent to 126 billion USD at the market rate of exchange). Between 1998 and 2002, Thailand’s global production increased to an annual rate of 0.9%, registering 5.2% growth in the last year. The low average of growth for the previous five-year period reflects the results of the 1997/98 crisis, since between 1999 and 2002 GDP growth was 4%; 2001 was the only slow year, with 1.9% growth. In 2002, Thai GDP estimated in international dollars (purchasing power parity, PPP) was 389 billion dollars; GDP per person was 1,870 USD.

The development of Thailand, a decade before the recent crises, reflected a combination of three elements that were also observed in other regional economies: an accelerated growth of manufacturing, specifically in the electronic and automobile sectors; a gradual liberalization of tariff barriers that has increased in recent years; and a strong growth trend since the end of the 80s (until 1997/98), that was preceded by a relative deceleration at the beginning of the decade. The conjunction of these three elements has been a major factor in the flow of foreign direct investment (FDI) into Thailand. As a proportion of GDP, FDI was kept more or less constant at 0.6% until 1987, and then rose significantly to almost 2% in 1997. As a result of the manufacturing structure, it is understandable that multinational companies (MNCs) are oriented toward the production of high technology goods that are exported to other markets, such as the United States, Japan and other South East Asian economies. In fact, for more than two decades the MNCs have represented a portion between 14% and 16% of the total manufacturing industry in the country, although more exact research shows that the figure is closer to 30%. Cumulative growth was nearly ten times the GDP during the 1987-1995 period.

Until the 90s, Thailand was the Southeast Asian country most favored by FDI, with investments originating mainly in Japan and in the newly industrialized countries (especially Singapore and Taiwan). Until 1989, Thailand received almost half of Japanese investment in the area. Although at present Thailand faces greater competition in its specialized manufacturing areas, particularly from China, the Thai economy has succeeded in becoming a model of global production, playing a fundamental role, if only as an intermediary in the process and not as a participant in its design or management.

Owing to Thailand’s development strategy, based on the production of goods for export, in addition to its still relatively low income (a limiting factor for internal demand), the Thai economy is extremely open to foreign trade. The exports ratio to GDP in 2006 was 71.4 %, and the same import ratio was 70.2 %, according to figures published by the Asian Development Bank (ADB). Thai exports that year increased to US$123.5 billion and were destined mainly to the United States (15.4%), Japan (13.6%), China (8.3%), Singapore (6.9%) and Hong Kong (5.6%). Thailand exports machinery and mechanical equipment (14.4% of total exports), electric systems for circuits (12.2%), computers and parts (11.9%) and domestic
appliances (7.6%). Food, live animals and canned goods are also main export products, in addition to mining. Imports consist mainly of electrical machinery (12.4%), fuel and lubricants (11.5%), non-electric machinery (10.1%) and base metals (7.2%). According to 2006 data, Thailand’s most important suppliers are Japan (23% of imports), the United States (9.6%), Singapore (7.6%) and Malaysia (5.6%).

Thailand’s economy did not seem to run into any serious long-term growth obstacles until the middle 90s. In the 50s, Thailand had stood out as one of the countries with faster growth rates - 3.9% annually, surpassed only by Brazil, Malaysia, Korea and Taiwan. Between 1970 and 1979, Thailand’s GDP grew at a rate of 7.3% annually; between 1980 and 1989, at 7.2%; and between 1990 and 1996, at 8.6%. In 1993 the World Bank gave its *imprimatur* to the developmental efforts of the countries in East Asia –including Thailand– in a publication whose suggestive title –*The East Asian Economic Miracle*– reflected its impressive economic growth, especially during the 80s, exceeding 8% per year, several times faster than the countries in the OECD (OECD/IAP, 2003).

The IMF-inspired reform program after the financial crisis included the approval of new bankruptcy laws, as well as new rules on the execution of mortgages, competition and establishment of businesses (Tasker, 2001). By 1999, Thailand was in the process of recovery, and GDP increased that year at a rate of 4.4% (6.8 – 7.0% between 2000 and 2002), in part due to the temporary recovery of the economies in the region, but mainly owing to important fiscal incentives focused on the growth of domestic demand. According to *The Economist*, the expansionary fiscal policy will be maintained in the short term, allowing for a 4.7% growth rate in 2003, increasing to 5.3% in 2004.

At present, the objectives of Thai economic policy are to enhance recovery and lay the foundations for sustained economic development, and the main instrument being used is a strongly expansionary fiscal policy. A particular objective is to raise rural incomes and development, and promote the growth of small and medium enterprises. For the medium term, policy goals include corporate restructuring, further privatization, a solvent financial system, and investment in education.

**The study**

In order to investigate the links between higher education and employment in a highly globalized world, we chose two different societies to search for similarities and differences. The authors have analyzed a vast range of official documents issued by the Mexican and Thai governments in order to identify public policies related to higher education and employment. Of particular interest, were the national governmental development plans before and after the financial crises of 1994 and 1997, wherein possible changes in policy formulation in relation to higher education might be detected. The findings indicate that both governments acknowledge the relevance of these two topics – higher education and employment – as they affect the majority of the population. This represents both potential, and effective, internal demand.

In addition, the authors designed a questionnaire on the assessment of policy implementation and governmental performance which was administered to academics, business people and government officials in both countries. The respondents were asked whether they knew about the existence and contents of national higher education and employment policies, and to share their opinions and suggestions about the aforementioned two key areas, including the linkage between universities and enterprise. There was a low questionnaire return rate (only 15 in total) so the authors decided to select 6
fully completed questionnaires from each country and analyze our data in a case study mode. The authors felt this was justified because of the rich data from these respondents, as the information stemmed from those directly involved in socio-economic policy making and implementation.

This data was complemented and triangulated by earlier bibliographical and fieldtrip data collected since the beginning of the research in 2001. Key literature sources included: economic data from the Bank of Thailand, the Thai Ministry of Commerce, The Mexican Ministry for the Economy, INEGI; reports from APEC, OEA, OECD, the World Bank; background articles on each country (Blanco, 1994; Crandall, 2004; Lederman, Maloney & Servén, 2005; Nagai, 2003; Sakhornrad, Satha-Anand, 1999; Tasker, 2001; Visudtibhan, & Yip, 1999); generic articles on neoliberalism, globalization and higher education (Altbach, 2003; Brown & Lauder, 2003; Fishman & Stromquist, 2000; Halsey, Lauder, Brown & Wells, 1997; Harvey, 2005; Newson & Buchbinder, 1998; Rhoads & Torres, 2006; Robertson, 2003; Schugurensky, 1999; Slaughter & Leslie, 1997; Spring, 2006) and prior research by the authors (Ivanova, Gámez, & Ángeles, 2003; Rangel & Ivanova, 2003; Rangel & Ivanova, 2004).

In the results section the authors present the reactions obtained through the questionnaire to higher education and employment policies. Then, in relation to the linkages between university and business, the key strategies adopted by both Mexico and Thailand are considered.

Results

Higher education policies

*Do you think that there are higher education policies in place? If yes, please name some.* In both countries the interviewees affirm that educational policies exist and name the following: opportunities for diminishing illiteracy, extending the national plans from five to 15 years, Thai research fund, scholarships for higher education, university autonomy, the existence of a national agency for educational quality standards, national educational assessment and accreditation system, participation of non-governmental organizations, policies for education of specialized human resources and policies for instructors' academic actualization. The results, therefore, indicate knowledge of the existence of educational policies.

*In your opinion, what kind of professionals should universities educate?* Responses from both Mexico and Thailand indicate that, in the first place, the countries need engineers and technical personnel for their economic development. Second, Thais highlight the demand for administrators and marketing experts, while Mexicans privilege graduates in science and mathematics. In the third place, Thailand ranks science and mathematics majors while Mexico ranks humanities and law. And fourth, Thais identify the need for personnel trained in humanities and law, while in Mexico those trained in administration and marketing are favored. The data suggest that both countries find themselves inserted into a global competitive context which requires highly qualified personnel handling new technology. It is also important to emphasize that the conversion from knowledge generation to patent generation and knowledge export does not represent a priority in Mexico and Thailand.

*Considering number and educational quality of university graduates, what do you think that the actual job offers?* Many of the Thai interviewees believed there was an adequate correspondence between graduates
and job openings, while the Mexican subjects felt there was an insufficient correspondence, including political science and law majors, but excluding other areas of social sciences and humanities. In the Thai case the causes for deficiency in number and educational quality deserves special attention. Building capacity is considered less important than in other countries. Textbooks are used as the primary instruction medium and the employers do not show interest in developing their employees’ knowledge and skills.

What kind of abilities and skills for the job market should university graduates have acquired during their studies which you consider they have not? Responses from both countries ranked analytical skills as being the most important. Problem solving abilities were considered to be of vital importance in the labor market and were ranked second by respondents in both countries. Teamwork, a feature essential to efficiency in the production process, was ranked third for Mexicans while Thailand ranked the need for foreign language and communication skills, probably due to the presence of English and Chinese in their country. This difference might be explained by the different views of collectivity and individuality in Asian and Occidental cultures. Decision-making abilities were ranked fourth in Thailand and in Mexico technology skills were considered relevant. At this point, Thailand seems to be more interested in the education of middle and upper level managers than Mexico. In Thailand, this sector is mainly populated by foreigners and is still in the developmental stage. Mexican respondents rank decision-making abilities in fifth place while the corresponding choice for Thais is teamwork. For the Mexican interviewees, foreign language and communication skills ranked sixth, for the Thais, technology skills. In the seventh place Thailand seems to be interested in manual abilities, and Mexicans in statistics. Manual abilities occupy the final position in Mexico and statistics in Thailand. Interestingly, both countries seem to privilege abilities focused on a ‘mind-facture’ rather than a ‘manu-facture’-oriented economy, despite the wide differences in their economic structures.

Do you think that educational policies are adequate for the national and international economic structures? Why? In Thailand, the majority of the interviewees believed there to be insufficient compatibility between educational policies and economic structures. Their statements refer to a high student concentration in social sciences and humanities but also identify the current economy’s demand for engineers, scientists and technology experts. Other issues of concern are students’ analytical abilities, a significant gap between supply and demand in the labor force, and lack of technology. The latter inevitably leads to foreign acquisitions. The need for educational (and science and technology) policies relevant to the economic structures is apparent. In the Mexican case, the responses focused on the following: lack of reflective analysis and long term planning in all of the three sectors – higher education, government and business – and the fact that educational policies are based on a blend of human capital theory and the interactions of political actors associated with corporative and union power players.

Employment policies

Do you think that there are employment policies in place linked to the educational supply? If yes, please name some. In Thailand opinions were divided, half the respondents affirmed the existence of such and half did not. However, in Mexico 100 percent of the interviewees responded that there was no relationship at all. In the Thai case, employment and educational policies corresponding to the national economic and social plan and its derived instruments can be acknowledged. Nevertheless, a lack of congruence can be detected – for example, a curriculum somewhat distant from the current labor requirements and a lack of
coordination regarding policy priorities among the ministries. In contrast, in Mexico no linkage between educational policies and job offers was perceived other than the existence of labor market policies (associated to labor supply). It was suggested that an in-depth study should be conducted about what branches and areas would require more and specialized workers, emphasizing the need for human resources with a technical background. This would raise the possibility of an education for specific job openings.

How does current employment policy contribute to productivity rise in enterprise and to job generation? In Thailand and in Mexico the interviewees agree that employment policy contributes very little to productivity increase and job generation. As we have learnt from the results of this research in Mexico, there are labor market policies linked to labor supply in place but an employment policy is non-existent in practice, although it is present in official discourses and documents. However, higher education barely receives any attention. According to The World Competitiveness Institute, Mexico occupies position number 52 (among 131 economies), and Thailand position number 28, with unemployment rates of 3.2% and 2.1% respectively.

To what extent do you think that the acquired knowledge and abilities of the freshly university graduated are adequate so that they can immediately be incorporated into the labor market? Neither in Thailand nor in Mexico were the expressed opinions favorable. On a scale of “excellent”, “good”, “regular” and “bad”, the majority chose “regular” in order to evaluate the time span needed for incorporation into the labor market. In the Mexican case, currently the National Program of Higher Education, Science, and Technology constitutes an attempt to stimulate greater participation of the business sector in curriculum design and research funding. Among other policies and programs, Thailand is promoting universities’ financial autonomy, inviting business people to participate in this endeavor and share responsibilities. In addition, a follow-up study of university graduates and employers regarding knowledge and skills acquisition during their academic education is being carried out.

Do you think that current employment policies are adequate for national and international economies? No Mexican interviewees believed such policies were adequate, while only half of their Thai counterparts shared the same opinion and half considered current policies to be adequate. Without doubt, the Thai Employment Policy has incorporated an international dimension. Nevertheless, 50% of Thai respondents are critical that this policy is still based on “The Three Lows” – low salaries, low skills, and low productivity. Furthermore, immigrant high-skilled workers and the limited number of small and medium size business are issues of concern. In contrast, in Mexico 90% of the businesses fall into the latter category and only a small portion produces goods for export. Without doubt this activity requires a well-trained labor force and adequate information about international markets. Mexican salaries are not considered competitive in comparison with those in Thailand and China but the country claims a greater proportion of skilled workers than Thailand. The Thai economy, in spite of being smaller than Mexico’s – which is ranked fifteenth in the world – exports more high surplus products than Mexico. Therefore, an effective employment policy linked to human resources’ education, and integrated into economic development policies, appears to be eminently necessary in the era of knowledge generation. The reasons why the Mexican interviewees believe there to be no employment policy in place adequate for national and international economic structures, include the lack of clarity about employment policies on the national and local levels and the missing linkage to other sectors’ policies. In addition, it is preferred to
design an industrial policy, instead of an employment policy. A few expressed the opinion that there were no employment policies (associated to production and productivity) at all, only labor market polices oriented towards short-term demand. Further observations indicate that university graduates struggle to find their place in the labor structure and insufficient job openings are generated. In Mexico approximately 2,000 doctors graduate annually; in Brazil the number rises from 5,000 to 7,000. A greater interaction between employment agencies and the private sector should be encouraged.

**Linkage between university and business**

*Do you think that current higher education institutions’ infrastructure and academic programs respond to current labor needs?* Fifty percent of the interviewees in both countries responded that the institutions’ capacities and programs would cover 50% of the current labor needs. One third of the Mexican respondents felt that the higher education programs are not likely to respond to 50% of the existing needs in the labor market, whereas in Thailand one of the interviewees believed that the programs would cover more than 70% of the labor market demands. It becomes apparent that the Thais perceive more congruence between higher education institutions’ infrastructure and academic programs, and the labor market – as they did with the existence of educational and employment policies. If we also consider that Thailand exports a major quantity of high surplus products and that it confronts more openly the conditions of the free market, then we might affirm that Thailand finds itself more immersed in conditions of the external market than Mexico, and its employment policy might be developing more in accordance with current reality.

*Do you think that currently universities and businesses are collaborating?* Eighty-three percent of the Thai and 67% of the Mexican interviewees considered that the collaborations are less than 50%; therefore 17% and 33% respectively stated that linkages are up to 50%. But still the results need to be examined. The Thai efforts to promote the financial autonomy of universities and the business sector’s growing participation in curriculum design and research funding seem to point towards a greater linkage between the two sectors.

*To what do you attribute the fact that more and more businesses decide to build their employees’ capacity by themselves, even establishing their own schools?* In Thailand, the arguments were that the employers: are conscious of the need to administer knowledge; see the necessity for firm or branch specific education (e.g., the Institute for Medical Sciences, public sector marine and aviation enterprises); favor low cost, on-site practical training integrated into the production process; and are responding to the failure of the public education system. The private sector is supported by the universities. In the Mexican case, the interviewees attribute the fact that businesses create their own internal education sites to the fact that both sides, higher education institutions and employers, suffer from myopia, or lack of vision, in terms of how to collaborate adequately and optimize their resources. In general, the business sector does not value employees’ education and consequently is not concerned with it. On-site training centers are viewed as isolated examples, true only for some branches and even for some enterprises. In addition, the Labor Ministry should propose forms of joint education activity between higher education institutions and businesses in order to optimize already existing resources. Furthermore, the business sector expresses its need for financial support from public agencies because it believes that certain specific research projects would not be channeled to universities. This also indicates a lack of information on the employers’ side,
together with some common misconceptions – for example, that business has to do its own research in order to export and to compete, whereas, university research centers could provide these types of services.

Do you think that the problem of linking university and business represents a risk at present? Insufficient linkage between universities and businesses affects the enterprises’ productivity, salaries and level of employment. These opinions were shared by both Thais and Mexicans and should be of major concern. According to several interviewees the design of efficient linkage strategies is crucial, so that, on one hand, the higher education institutions can comply with their social mission, and on the other hand, the employers know how to make use of universities’ infrastructure and human resources. Certainly this would require major funding of academic and scientific work. At stake, is job generation and the obvious inherent benefits for individuals and society.

Name what linkage strategies your institution is currently applying. The following strategies were identified: professional training of employees; education and actualization of managers and directors; invitation to the enterprise’s events in order to promote the firm; thesis internships in governmental agencies; student professional practica (substituting social service) in enterprises; joint research and publishing projects; and development of specific encounter centers between university and business. As mentioned earlier, these strategies are already applied in Mexico but not yet in a formal and efficient way. There is a need to strengthen these ties in order to generate funding sources for research projects and to develop curricula to bring even more students into the job market. A further suggestion urges changes in higher education instruction goals, format and methods in favor of a student-centered approach. This is of special relevance when we recall that employers mostly valued analytical and problem-solving abilities in university graduates. In the Thai case, the interviewees highlighted strategies associated with vocational training like the TVQ (Thai Vocational Qualification), a bilateral endeavor between education institutions and enterprises, which was established as an assessment tool for technical personnel in the electronic, mechanical and plastic industries. Furthermore, temporary employment, student support for professional training, courses for supervisors, field studies, education for special groups (e.g. courses for convicts), and programs for creating new businesses were proposed as additional measures and linkage strategies between university and business.

Which of the following linkage strategies your institution would be willing to implement? The opinions in Thailand privileged, in this order: student professional practica; financial support for professional training; joint research projects; businesses’ tours and field trips; collaboration agreements; the business site as conference venue; internships; and scholarships and awards. The results from Mexico differ slightly. From most to least preferred: student professional practica; businesses’ tours and field trips; joint research projects; internships; financial support for professional training; collaboration agreements; the business site as conference venue; and scholarship and awards.

Do you think that, in the future, the linkage mechanism between higher education institutions and business sector will be fortified? Two thirds of the Thai interviewees expect a substantial increase and one third does not, since there are no governmental policies in place that would encourage such activities. The arguments favoring a major linkage between universities and businesses include the need for a qualified labor force that meets international standards and for the fulfillment of the labor market demands. In addition, research, viewed as a socially valued product and mostly carried out by universities, constitutes
another important reason for establishing linkages between university and enterprises. In the Mexican case, opinions are divided, one half believes that there will be strengthened linkages and the other half does not. The supporters stress successful examples from other countries, express the expectation of greater initiative and participation from the business sector, and assert that the linkage is already being constructed and forms part of the public agenda. Those who do not foresee a stronger connection between university and enterprise argue that this requires the coordination of, at least, four national policies related to education, industry, science and technology, and employment. Furthermore, the current programs need to be disseminated and executed, so that, based upon previous experiences, new programs with greater outreach could be designed. It is important to note that none of the interviewees would discard a desirable linkage between the higher education and business sectors.

Concluding thoughts

Aside from the question as to whether employment policies are in existence or not (opinions that were expressed by the Mexican respondents) – a discussion in which we will not engage here, the concerns in Thailand are focused on achieving a major linkage between university and enterprise, whereas in Mexico the main concern consists of the possible lack of political willingness to put policies into practice. Thais visualize more efficient forms of collaboration, and attribute the link between educational and employment policies to a more practical vision. Mexicans question the political willingness of state authorities to translate policies into practice. The ongoing democratization process in Mexico requires the participation of all actors and perhaps more time is needed to reach a broad consensus on national policies. The Thai State has different characteristics. State interventionism and long term planning (common in Asia), which might actually provide favorable conditions for the fostering of university-business linkage, are able to exist alongside the international neoliberal vision.

The congruence of educational and employment policies, complementing each other for the sake of adequate functioning of the labor market and consequently for the strengthening of the internal market and the improvement of individuals’ life conditions, are challenges acknowledged in both countries. A common concern is to find effective forms of collaboration in policy design and implementation, oriented towards economic development. Keeping this in mind, higher education and employment policies could benefit from the efficient and objective application of a university-business linkage with a clear focus on social benefits. The starting point has been identified in the national social and economic developmental plans of both governments. Now it is time to go beyond the official discourse in order to generate the conditions for higher education institutions to demonstrate, with objective results, the pertinence of their academic and research programs, and for the business sector to demonstrate its commitment to the country’s development.

References


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