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Impediments to Enhancing Research within Universities in Developing Context: The Case of Pakistani Universities

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Abstract: *Universities in some developing countries are undergoing reforms over the recent decades so that they become research-based institutions. It has been stressed that research is of paramount importance for enhancing the economy of a country and for societies to become knowledge-based. However some of these concepts and challenges faced by these universities are hardly explored. Relying on the analysis of qualitative interviews and document analysis, this paper examines how the Higher Education Commission (HEC) has taken numerous initiatives to boost the research capacity of universities in Pakistan. Even then, numerous challenge remains in the attempt to enhance research quality. Funding and its effective use, academic freedom, and value of research in the society emerged as major impediments to research development at the universities. Critical voices from the university faculty are rarely taken into account by those responsible for higher education bodies, therefore many of such challenges persist till date. The article proposes solutions for overcoming some of these challenges and situates the experience of Pakistani universities within the broader experiences of universities world-wide.*

Keywords: *higher education, Pakistani universities, research, academic freedom, value of research*

Introduction

The importance of research and the urge for universities of the developing contexts to become research-based institutions has grown into a pressing matter over recent decades. It is suggested that research, along with many other functions of universities, is of paramount importance for enhancing economy of a country and for societies to become knowledge-based (UNESCO, 1998; World Bank, 2000, 2002; Salmi, 2009; Altbach, 2007, 2013). Universities should increase their research output and enhance its quality, since the latter is a prerequisite for a knowledge-based society (Tilak, 2002). In response to the prompt, many developing countries rehabilitated their higher education by boosting expenditure on research and creating structures such as Multimedia Super Corridor (MSC) in Malaysia, and Cyberservice Corridor (PCC) in the Philippines, both moving towards embracing a knowledge-based economy (Symaco, 2012). Other countries, like Pakistan, are similarly eager to reform their universities and make them research-based with the vision of enhancing its economy and transforming its society into one based on knowledge (Government of Pakistan, 2002; Higher Education Commission, 2012, 2013).

Based on the analysis of qualitative interviews and document analysis, this paper explores how the Higher Education Commission (HEC), an influential regulating and funding body for universities in Pakistan, has taken numerous initiatives to boost the research capacity of universities. Yet, amidst

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the reform, dissenting voices of university faculty and their concerns about the major impediments to enhancing research quality at the universities are rarely taken into account, either by HEC or the government. Moreover, in Pakistan, similar to other developing contexts, those concerned with research development at the universities and a wider population of intellectuals scarcely have the freedom for open and critical discussions about major challenges universities face or the conceptual issues in higher education. Rarely has qualitative research been done at the grass-root level to get the thoughts of university faculty on the challenges universities face, or on what the relationship between the various challenges is. This paper aims to fill these gaps and hope that when enhancing research quality at the universities, HEC will pay heed to these criticisms and include relevant university faculty in the decision making process while trying to resolve some of these challenges. Funding and its effective use, academic freedom and the value of research in society emerged as the key impediments to research development at the universities in Pakistan in this study.

We will start with a review of relevant literature and examine some key definitions. Then, a brief overview of the state of research in Pakistani universities will be given and reform initiatives by HEC in relation to research development at universities will be discussed. Afterwards, major impediments to enhancing research at Pakistani universities are explored. Finally, recommendations for overcoming some of these challenges are proposed and the experience of Pakistani universities is located within the broader experiences of universities world-wide.

Research at the Universities and Key Definitions

There is a dearth of literature on universities' research quality in general, and even more so on research at the universities in Pakistan. Higher education research is rightly recognised as an underdeveloped field (Altbach et. al., 2006), but in the context of a developing country such as Pakistan, the situation of the field is bleaker still. For example, out of the 244 universities in Asia engaged in higher education research from 1980 to 2012, 66 percent have published one article and 15 percent published two articles in research journals (Jung and Horta, 2013). Only four universities from Pakistan are engaged in such research publication and are not listed among the top ten countries with the higher percentage of publication, but fall within the institutions with a low level of engagement in higher education research (Ibid). As a result there is little research available on how universities in Pakistan conduct research, in which areas, what they have achieved so far and what needs to be improved. Neither are there discussions on what is meant by the words 'world-class universities', 'research universities', nor 'knowledge-based society or economy'. Therefore we need to first clarify what we mean by these definitions.

Kapur and Crowley (2008) highlighting the importance of higher education for developing countries as well as broadening research agenda of the universities, caution us about using 'knowledge economy' and 'knowledge-based society' uncritically. Some assert that knowledge economy is "different from traditional industrial economy because knowledge is different from traditional commodities and therefore, requires different organisation and modes of distribution." It has many characteristics "of a global public good and is not bound by the law of scarcity that affects other commodities" (Stiglitz, 1999 in Kapur and Crowley 2008, p.14). Others disagree and state that knowledge economy does not mean a new mode of production, rather there is a new type of relationship between knowledge production and economy. Bastalich (2010, p.845) argues that despite the claims of policy makers, 'knowledge economy' 'does not describe a "new" mode of economic production, but a discursive recasting of the relations between ideas and production'. The policy environments underestimate the value and role of universities within a democracy and fall short of recognising and supporting the unique nature of university knowledge production and innovations (Ibid.). In any case, all these various views have one thing in common, namely that knowledge economy does require a new type of organisation of knowledge production and its distribution.

Despite the excitements about 'knowledge economy' in the developing countries very little is known about whether it works, and how. This is perhaps mostly due to the vague relationships

between the goals of higher education and individual benefits (Kapur and Crowley, 2008). Added to this is the lack of statistical data on higher education in the developing countries (Ibid).

'Research universities' are defined as "academic institutions committed to the creation and disseminations of knowledge in a range of disciplines and fields, featuring the appropriate laboratories, libraries and other infrastructures that permit teaching and research at the highest possible level" (Altbach, 2007, p.1). It is argued that countries should develop their research universities, linking them with the global scientific network so that they may participate in them and benefit from the scientific advancements (Altbach, 2007). World-class universities have highly sought-after graduates, leading-edge research, and technological transfer that are a direct result of a strong faculty and student body, abundant resources and effective governance (Salmi, 2009).

Most universities in the developing countries, including Pakistan, are lacking these main characteristics of a research university and/or world-class universities. That is why we avoid using these definitions in relation to Pakistani universities and focus on 'enhancing research at Pakistani universities' instead. Universities globally are facing numerous challenges such as (lack of) funding, untenable research culture, autonomy and accountability, market oriented research, academic freedom (Altbach, 2007), yet these challenges are faced more strongly in the developing countries. Case studies of some universities in Pakistan demonstrate that there are some context specific challenges. The most outstanding ones are funding, academic freedom, quality assurance, leadership and management, organisation of knowledge, enhancing research culture at the universities, reconciliation of modernity with tradition, and teaching of Muslim cultures and civilisations, especially religion (Muborakshoeva, 2013). These challenges need to be examined in detail when thinking about developing research at universities in Pakistan generally and transforming them into research-based, or world class universities particularly.

Methodology

Documentary (both primary and secondary) sources as well as interviews with prominent academics at seven higher educational institutions in Pakistan have been collected and analysed in this article. The overall design is grounded theory, which is often used in studies where there is a lack of theoretical knowledge in the field (Glazer and Strauss, 1967). As Ashwin (2012) argues, it is very rare that research findings develop explicit theories despite research in higher education having enormous value in contributing to the development of higher education practices. The empirical data collected and analysed in this article, therefore is part of a larger study conducted on the overall aims and concepts of higher education in Muslim contexts, the bulk of the findings for which were published as a book (see Muborakshoeva, 2013). The book highlights that higher education in Muslim contexts, rich in heritage and conceptually diverse, faces many challenges in contemporary times. Due to the nature of the book, there is little opportunity to discuss some of the challenges universities face at a deeper level. In this article, I am focusing on the analysis of data on research culture at Pakistani universities and what challenges they face in conducting research.

For the purpose of this paper I will use the qualitative interviews conducted with 18 scholars at seven higher educational institutions—the University of the Punjab, Karachi University, the Aga Khan University, Hamdard University, Lahore University of Management Sciences, University of Management and Technology, and National College of Arts. The decisive factor in sample selection was their well-recognised research, extensive experience of working in different universities in Pakistan and abroad, and being aware of the wider issues and challenges universities face in relation to research rather than being representative of the university or certain institution within that university (for the profile of the interviewees see Muborakshoeva, 2013). In this article I quote the interviewees by their role or position at the university.

The strengths and weaknesses of the research design and qualitative interviews were evaluated and possible biases were eliminated. For example, notions such as going to the field with 'a blank mind' and not having prior preconceptions (Glazer and Strauss, 1967), were critically examined. In

terms of reliability of the tools used for data collection and validity of the data gathered and analysed, attempts were made to eliminate personal biases, make accurate analysis and judgements, and check the plausibility of the claims in light of existing knowledge as well as using triangulation techniques. To verify claims made by the respondents, the researcher relied on wider literature and analysis of interview transcripts, observation notes and documents.

Although this study did not come up with more general theories, it nevertheless succeeded in generating substantial understanding of the issues that speak for the populations they were derived from. The issues and challlenges that emerged included funding and its effective use, academic freedom, and value of research in society. The study considers these to be the major obstacles to developing research at the universities in Pakistan. It is therefore hoped that the findings of this study have 'the language of explanatory power' (Strauss and Corbin, 1998) with regard to numerous universities in Pakistan and other developing countries with similar background, history and structural organisation.

Findings

The State of Research at Universities of Pakistan

Since the inception of the earliest universities in the areas that became Pakistan, there had been debates as to whether the universities should be research or teaching institutions. For instance, when establishing University of the Punjab in 1880s, the orientalist scholars and local intellectuals of the Punjab insisted that the university should promote knowledge creation and its dissemination in vernaculars. The British officials and colonialist, on the other hand, wanted it to be a teaching university with English as a medium of instruction and prepare civil servants and educated work force for colonial industries (Mathur, 1968, Singh, 1993, Muborakshoeva, 2013). The orientalists and local intellectuals seemed to win the debate, however, in the decades to come it gradually became more of a teaching university. A lecturer from University of the Punjab told me that 'at the inception, its aim was to promote knowledge and create an academic atmosphere to conduct research and organise seminars and conferences, but with the passage of time, it was converted to a routine institution'. The reason as to why this change happened at the Punjab University is probably connected with the overall social and political developments in the subcontinent, its division into two countries, and priorities set by the national states. Since the 1950s, with the establishment of Karachi University and other universities in 1960s and 1970s, it was clear that the emphasis was more on teaching, preparing civil servants and highly educated people to meet the needs of the newly established state of Pakistan (Akhtar, 1977, Muborakshoeva, 2013). Nevertheless, research has always been part of the mission and vision of these universities. Research of a high calibre was produced by these early Universities of Punjab, Karachi, Sindh, and others. Prominent scholars and researchers had been working at these universities and two graduates of the Punjab University received Noble Prizes later on (Muborakshoeva, 2013).

However, scholars I have interviewed expressed their dissatisfaction with the state of research at the universities of Pakistan since the last few decades of the past century. They thought that it is of a low quality and regretted that none of their universities are at the top list of world university ranking. The interviewees highlighted that 'the culture of research' at Pakistani universities and research conducted at some public universities was more in the line of being 'conformist' and 'routine', with a lack of rigorous 'critical approaches'.

With regard to challenges in research, the interviewees highlighted that funding and its effective use, academic freedom, the value of research in society, quality assurance, marketing research findings, and lack of adequate policies and procedures stands in the way of research dissemination (Muborakshoeva, 2013). We shall discuss in this paper how some of these challenges were addressed yet, some persist and need to be addressed by the government, the HEC, university management, and the society as a whole.

This 'lack of research culture' and the weak research quality at the universities pushed the intellectuals and government agencies to revise the existing policies and give more freedom to higher educational institutions to enhance their research quality. This flexibility allowed private universities to be established in Pakistan since the 1980s. The Aga Khan University, Lahore University of Management Sciences, Hamdard University, and many others are cases in point which have embraced a strong research agenda in their mission statements. Studies conducted at these universities are of high quality and internationally recognised; they are great examples for public universities in enhancing research. However, the most prominent boost to research development at Pakistani universities comes from the Higher Education Commission (HEC).

Enhancing Research at Universities by Higher Education Commission (HEC)

HEC has initiated a series of reforms at higher education institutions in Pakistan since the beginning of this millennium. Being set up by the government of Pakistan in 2002 as a replacement for the then office of University Grants Commission, HEC was granted more power and freedom in terms of higher education's regulation, management and co-ordination. The large-scale reforms by HEC since its inception paid off and it achieved considerable success in developing faculty, quality assurance, access to higher education, equipping universities with updated IT and technology, and staff remuneration. Particularly significant are the efforts of HEC in enhancing the quality of teaching and learning, but it is only concentrated on research relevant to economy and industries of the country. This success was notable since the beginning of HEC's establishment, especially under its then chairman, Dr. Ata ur-Rahman's leadership, where funding from foreign and domestic sources and donors were successfully obtained. However, from the year 2008, the funding for universities through HEC has fallen drastically, particularly so for the years after 2010 (a point we shall discuss later on). Nevertheless, HEC is still committed to improving the quality of research at universities across Pakistan. This quote from the chairperson of HEC, Mukhtar Ahmed, gives the scale of research capacity development among Pakistani scholars:

> ' (…)over 6000 scholars have been sent abroad/financed under various HRD programmes for MS, PhD, Post-doctoral research and under the International Research Support Initiative Programme. Out of these, around 4000 have successfully completed their studies and returned to serve in Pakistan. While more than 5000 scholarships have been awarded under indigenous schemes of which around 1200 scholars have completed their doctoral degrees. In addition, the first batch of 1000 scholars has been provisionally selected during 2012-13 under Phase-II of the Indigenous PhD Fellowships' (Higher Education Commission 2013, p.ii)

The Research and Development division at HEC provides support for universities and academics 'in four major areas such as (a) promotion of research in universities, (b) capacity building of researchers and faculty, (c) support to universities in promoting research, and (d) commercialization of research' (Ibid).

To promote research at universities, the National Research Program for Universities (NRPU) gives research grants to university teachers for scientific research. Out of 674 research proposals in 2012-13, 94 have been approved for funding, 141 have been rejected so far and 566 are under the evaluation process. Other initiatives are the Pakistan-US Science and Technology Cooperation Programme, HEC-British Council strategic partnership in Research and Education, International links of Pakistani universities with foreign universities (Ibid.). Pakistani universities also attempt to obtain an Associate Membership of CERN, the European Organisation for Nuclear Research (Higher Education Commission, 2014).

To build the capacity of researchers and faculty, travel grants are given to researchers to present their research findings at national and international conferences. The Textbook and Monograph Writing scheme aids the faculty, researchers, and scholars with the publication of

their work. Opportunities are offered for collaborative research and dissemination of research findings through the organisation of seminars and conferences. Universities can borrow scientific instruments from each other, where HEC reimburses the cost, and apply for grants for purchase of laboratory equipment. Pakistani universities have access to numerous electronic research journals of 478 institutions, for which HEC spends more than Rs. 900 million (8.9 million USD) per annum on subscription of e-resources. Research publications by universities and degree awarding institutions are rated by HEC for quality using international benchmark and criteria (Higher Education Commission, 2013).

Structures are put in place to link research at universities with economy and businesses. For instance, the Business Incubator Centres (BIC) assist researchers and young entrepreneurs who intend to develop promising business ventures. So far eight BICs have been established in eight universities. The Office of Research and Innovation and Commercialisation (ORIC) provides strategic and operational support to research activities in higher education institutions, of which 27 (i.e. ORICs) have been established at public and private universities and their performance rigorously monitored (Higher Education Commission, 2013).

Measures are put in place by HEC to make sure that the PhD holders serve Pakistani society for at least 5 years. This is in response to increased concerns about the rationale behind HEC's providing scholarship for postgraduate studies abroad and in Pakistan who leave the country after obtaining their degree. The concerns some interviewees in this study shared were that those scholars who do not contribute to Pakistani society ultimately benefit only personally and do not contribute to the public good in Pakistan.

Consequently, through these initiatives for enhancing research at both public and private universities, it can be argued that HEC enabled universities to overcome some of these challenges. Funding research via various schemes improved, quality of research was enhanced and support mechanisms for collaborative research, dissemination of research output, and commercialisation of research were created. Even though there is a huge gap between research output in Pakistan and India, and it is parked behind Iran and Malaysia in this regard (SJR, 2015), the quality of research is steadily expanding in Pakistan and its scientific indicators are encouraging. HEC, therefore, has been able to promote research culture at the universities and encourage them to use opportunities provided for the purpose of research enhancement. However, there are some persistent challenges to research development at the universities highlighted by intellectuals and university faculty; dissenting voices that are hardly being acknowledged by the government or HEC.

Key Impediments to Enhancing Research at Universities

Despite the success stories discussed earlier, there are many areas for improvement, some highlighted by HEC and others pointed out by critics. Scholars I interviewed in Pakistan brought to the attention additional and more pressing unresolved issues related to enhancing research quality at universities. These are concerns over funding and its effective use, academic freedom, and the value of research in society.

Funding and its Effective Use

Funding, which has been an on-going issue for higher education in Pakistan (see Isani and Virk, 2005) could be resolved by the persistence of HEC in demanding for increase in funding for higher education from the government, and by co-operating with international funding bodies. A lecturer stated that due to strong leadership skills of Ata ur-Rahman at HEC a lot of international aid money that came to Pakistan was channelled towards university and research purposes, which increased the research output in science. However, he thought, as it often happens in the developing countries, sometimes this funding was not utilised efficiently and could have fallen into the hands of a corrupt leader or an ineffective manager of a university. This relative generosity did not last long and with

the change of government in Pakistan, funds for higher education have drastically fallen again since 2010. This is a major challenge which HEC is struggling to resolve with the government. Others also claim that even when funds were in abundance, especially from 2000s to 2006, they were not utilised effectively and were spent inefficiently on unnecessary expansions, tenured professors' salaries and unrealistic partnership with foreign universities (Hoodbhoy, 2010). In defence, the former chairman of HEC Jawaid Laghari (2010) emphasised that HEC was learning from its past experiences and had aligned its focus on managing finances efficiently, attaining equitability in growth, placing emphasis on quality, and furthering relevance in research. However, over the recent years, things are moving slowly and potential candidates for scholarships complain (Higher Education Commission, 2011a) about tardy response from HEC about the state of their applications. Furthermore, those on HEC scholarships abroad complain about delays in their tuition payments. The very fact that out of 674 research proposals for 2013-14 a high number of them (566) was still under review in 2014 demonstrates a slow pace of work by HEC which translates into a long wait for university faculty. Perhaps the lengthy process of selecting and appointing the chairman of HEC in 2014 also contributed to such deficiencies.

The lack of appropriate funding, ineffective use of funding, and delays in providing funds results in poor research output discourage potential postgraduate candidates and university faculty in conducting research. The situation is worsened by the fact that out of the small pool of students enrolled at university, the more gifted ones opt for sciences, business studies, and Information Technology (IT). A vice chancellor emphasised that one cannot expect high quality research from underfunded universities where barely 7 per cent of students get enrolled. Another lecturer added that humanities and social sciences 'end up recruiting weaker students, so there is little prospect to expect research of a high calibre from them'.

Most scholars agreed that research conducted in humanities and social sciences get less funding although it houses the vast majority of students who ended up opting for social sciences, arts and humanities, and religious education due to poor education and greater availability of seats (Muborakshoeva, 2013). Out of the total 481 research projects listed by the National Research Program for University only a few are on education and social sciences and none on humanities and arts. Moreover, the number of those approved (153 projects) is almost the same as those rejected (118 projects) (Higher Education Commission, 2011b, pp.55-57). This in turn, suggests that more funding should be allocated to resources and support structure for the university faculty to assist them in developing quality research proposals. It is, however, notable to observe the inclusiveness of HEC in funding quality research proposals from private universities. Scholars at private universities thought that since they manage funds very well and utilise it efficiently, "it was about time the HEC considered funding some private universities that manage resources well" (Muborakshoeva 2013, p.128). It seems HEC has taken this suggestion of the faculty from private universities on board.

If one looks at the allocation of funds for the fiscal year of 2013-14, higher education received a lion share (73 per cent out of the Rs 86.4 billion (856.4 million USD)) of the fund, and in principle should be better off than other educational sectors. However, taking inflation (of 8.7 per cent) into account this budget is in fact a decrease of 11 per cent and is equal to Rs 78.9 billion (782.1 million USD) in real term (Junaidi, 2014). Adequate funding therefore has a close correlation with quality research and is one of the most important factors in enhancing research quality at university level.

Academic Freedom

As far as academic freedom is concerned, most of the university faculty I have consulted thought that it has a close correlation with both funding and societal conditions. The more a university is independent financially, the more freedom it enjoys in conducting research. Such universities also successfully deal with the political and religious pressures. The National College of Arts, some schools at Karachi and Punjab universities, the Aga Khan University, Lahore University of Management Sciences, Hamdard University, University of Management and Technology are such examples

(Muborakshoeva, 2013). Nevertheless universities, including those aforementioned, experience some degree of societal pressures albeit in various forms.

A Rector of a university likened academic freedom exercised at the universities to the overall freedom practised in Pakistani society; this view leaves little room for the vibrant development of universities:

> 'Universities flourish in societies which are open and democratic. If the state is not democratic, you cannot expect much from the university. Universities cannot be islands of freedom of thought if the society is not supportive (...) universities are laboratories in that sense, they come up with suggestions, proposals and transfer that into society to implement. That type of relationship does not exist; societies are governed by [a] particular [group of] elite, a particular set of institutions which are not bothered about getting input from universities. I mean our bureaucracy and military, for instance, design foreign policy of the country without consulting what the professor of International Relation thinks or what research he has produced.'

He further elaborated that 'universities are think tanks that produce research for the benefit of the society and policy making, but that type of relationship does not exist between universities and society'. To him if the society 'is not functional and democratic, we cannot expect good universities there to produce knowledge and propose solutions to the issues of society'. Additionally, political and religious parties interfere in the affairs of the universities, which ultimately impede the proper functioning of universities, including conducting research freely at the institutions. A dean of an institute emphasised that although he was not against political parties having their students' wings at the campuses, he strongly condemned the unwarranted interferences of the government or political parties into everyday business of the institutions which serves to damage the image and confidence of the institutions and is a constant challenge for them. In his view,

> 'Political interference into the affairs of the universities should be eradicated. There are different types of political influences, first there is interference from the government asking a university to do this or that, in appointment of high officials of the university too the government has its influence (...) Secondly, there are political organizations, which also interfere in the matters of the universities (…) there is nothing wrong for a political organization to have its students' wing, but it should have certain norms of conduct and discipline. Political organizations should not interfere with the administration of the university in the sense that they ask for political favours from [the] university and the teaching staff, or they interfere with the judgment of the teachers as to whom to award good marks, to whom to give first position or second, who should be given admission and so on and so forth (…) This is a very big challenge.'

Students' political activism at Pakistani universities has a long history and although to eradicate it completely has been proven almost impossible, nevertheless the constant ban on students organising unions has worked and the level of violence carried out by various students' political and religious groups reduced significantly as compared with the 80s and early 90s (Paracha, 2014). Now intellectuals and academics are of two opinions, one in support of the ban on students' political activism, and others against the ban (Ibid). Similarly, the religious groups and parties have their own influences at the universities through their students' wing. The religious sway started with a simpler mission of influencing the students to make them 'better Muslims', but by mirroring other secular political parties, they too started using different methods, including violence and imposing their agenda on others (Paracha, 2014). 'Islamisation' at the universities, for instance, was one of such agenda, which was initiated by Zia ul-Haq (1976-87). Since then the teaching of Islamic Studies became compulsory at the universities, which in itself was not an unscrupulous initiative. However, the teaching of this subject was not as creative and free as the academics would have wanted it to be (Muborakshoeva, 2013). Moreover, the pressure exerted by religious and political parties at the

societal level has an impact on academic freedom. Some religio-political parties are generally hostile to critical and creative research in Islamic studies and very defensive of religion and its dogmas. A scholar told me that challenging the belief system openly would not be tolerated by such groups even though their attitude towards some academic publications on religion would be somewhat relaxed:

> '(…) of course if in a certain university anybody stands up and says anything about God or the Prophet, which goes against Islamic belief, he would be knocked out, he would not be tolerated... You can be lousy, careless about your faith, you can afford to pray or not to pray, even if you say that Islam is out of fashion you still survive, but challenging the belief system and questioning the basics would not be tolerated. Pluralism is there to an extent as it is in the society, this is how it is in the overall society as well. If I write an essay saying that the belief in God is not justified and rationalism is this and that and publish it in a newspaper may be, I would be excused as an intellectual, but if I stand and say it in a classroom I would face a very hostile crowd.'

A possible reason for the more rigid religious groups not challenging the scholars about their publication is that most of them are published in English and hence not accessible to the masses. However, seeing that Pakistan and its institutions have produced the most renowned scholars in all fields, including those in Islamic Studies (e.g. Fazlur Rahman), there could be other reasons for relatively tolerable approach to academic research and publication. Another academic believed that the religious groups' concerns about critical thinking damaging religion were groundless, since it was critical thinking in sciences, philosophy, religion, and humanities in the early centuries of Islam that made it a dynamic religion and a civilisation.

As we stated earlier, in most cases exercising academic freedom is correlated with the financial situation of an institution. There are many examples of universities in Pakistan where they enjoy academic freedom due to being more financially independent from the government. For instance, the National College of Arts (NCA), which has creative ways of raising funds, enjoys more academic freedom as compared with the Institute of Art and Design at the Punjab University. A lecturer explained the reason as to why this is the case:

> '(…) there is much more academic freedom in NCA than in other institutions. NCA is the only public institution in the country which has earned a lot of distinction because of their academic freedom from the state influence, from the influence of the mullah at the level of the student body and faculty. It is extraordinary if one compares NCA with the Institute of Art and Design at the Punjab University, which was created almost at the same time as NCA. They are across the road, but if from NCA you enter the Institute at the Punjab University you are entering from one time zone to the other, because PU has much stronger presence of state control than NCA. There are multiple reasons for that, but the fact is that we have academic freedom in our classrooms; we question the state, military, and the religious orthodoxy. In PU they cannot do that due to the state control, ruling orthodoxy and so on, their appointments are from top to bottom, etc.'

Unfortunately, examples of institutions such as the NCA are rare and the major trend is for the government and political parties to influence universities. Such influences then have negative consequences for the institutions where disruptions to educational activities, including research, occur.

Value of Research in Society

The value of research too is linked with the overall societal progress, especially how research is valued by various stratum of population, which is dependent first on literacy level, and subsequently on linguistic accessibility of research findings to the wider public as mentioned earlier.

There was a general feeling among some interviewees that the society as a whole is indifferent to the development of its most important institutions of education. On one hand, they relate it to the fact that the majority of the population is poor and not everyone has opportunity to get higher education and ultimately benefit from it, or pursue a career in research. This then deprives them from having access to research findings and appreciate its value. On the other hand, there are people who are affluent but they too do not necessarily invest in the long term educational career of their female offspring, or encourage them to do research (Muborakshoeva, 2013). The affluent Pakistanis are also not very supportive of universities and developing research there. A dean of an institute was particularly critical of the Pakistani philanthropists living abroad who do not value investing in public university:

> 'The Pakistani affluent [people] give a lot of donations in the name of God, in the name of *khayrat*, charity(...)in recent years there were millions of Arab rupees given by Pakistani expatriates from the Middle East, America, Canada, Europe, etc. Their thinking is that if they donate the money to the mosque they will get *sawab*, reward, from Allah… They do not take public service and institutions as a good cause (…)on certain occasions, back in England, I suggested why don't you want to contribute to Karachi University or Sindh University? But they have a very bad opinion about public universities. They are mostly university educated people (…) but their thinking is narrow(…)'

He further explained that in some mosques they regularly change the carpets or the pavements because of the abundance of money, yet the rich do not channel their funds to education and research. The affluent Pakistanis, especially those living in the Middle East and still holding Pakistani citizenship, do send their children to study at the top Pakistani universities and thus contribute to the universities' revenue (Muborakshoeva, 2013). Nevertheless they too, as some interviewees highlighted, do not necessarily invest in research enhancement in those universities.

A few interviewees blamed the universities in being detached from society and becoming 'ivory towers', which then results in the wider society being unaware of the type of research universities do, or having any awareness of the capability and potential of universities in resolving the larger issues of the society. Critics also point out other shortcomings such as scholars doing research mainly for the sake of promotion, issues of jealousy among faculty and lack of collaboration between them, universities not promoting research, 'tortuous processes of acquiring funds' for research, and the gulf between academia and industry (Zardari, 2014). It therefore seems that there is very little collaboration within universities. Furthermore, universities too are hardly proactive in creating links with industries or society as a whole.

Discussion and Conclusion

As it emerged from the analysis of the findings, universities in Pakistan face challenges such as funding and its effective use, academic freedom and value of research in society as some of the major impediments to enhancing research at the universities. It is therefore perhaps not easy for Pakistani universities to fulfil the HEC's plans to become research oriented institutions and transform the society to a knowledge-based one. It is claimed by HEC that 'the Medium Term Development Framework I (MTDF I) for 2005-2010 focused on the internal development of the institutions of higher learning as world class centres of learning and research' (MTDF II 2010-2015, p.4). Does this imply that Pakistani universities are now world-class? The characteristics of world-class or research university (by Altbach, 2007; Salmi, 2009) and challenges in research at universities we discussed here certainly makes it hard for us to call them as such.

It is praiseworthy that HEC wants universities 'to build economies, communities and leadership' and encourages them to reach out to the communities that host them and 'engage stakeholders to play their due role in the development of Pakistan' (MTDF II, 2010-15:10). Some universities in Pakistan, including some private ones, do have outreach activities and programs. Similarly research

in various fields, including education and health are conducted by these universities, some of which are of a high quality.

As it also emerged, most research grants as well as most scholarship for PhDs abroad are given to sciences and IT, and not or social sciences/arts (see HEC's Annual Reports). HEC asserts that the lack of quality research in the social sciences and the arts is due to poor quality of research proposals, which in turn is thought to be a result of weakness within undergraduate education in these disciplines. However, the interviewees in this research thought it was due to the poor education at the primary and secondary levels. The brightest students and those from strong state and private schools study sciences, whilst the weaker ones end up being enrolled in humanities and social sciences.

Based on analysis of the findings here we propose the following recommendations for the government, the HEC, and the universities in Pakistan, which could also be enlightening for the universities in the developing world:

- Funding for universities and especially research should be increased and utilised effectively. The fact that the government funds the public universities, does not give it the right to interfere in all affairs of the universities.
- Conducive environment to produce quality research should be created at the universities. Quality research in all areas (on education, arts and sciences, health service, industries and technology, politics and social sciences) should be given equal importance and encouraged for publications in high rated journals.
- Academic freedom should be guaranteed and restrictions on academic freedom imposed by government and religio-political parties eradicated. Research conducted at universities should critically examine the economic, politico-ideological, socio-cultural, and religious issues of the society and propose solutions to such challenges. The government should utilise the research findings and involve academics as consultants in some of the decision making processes and policy making.
- The Ministry of Education (MoE) and HEC should collaborate with all institutions of higher education. For instance, madrasahs (Islamic schools) which provide higher and post-graduate education should be included in the research related policies for higher education. So far neither the MoE nor the HEC has worked out effective policies to engage with the teachers and students at these madrasahs. Lack of dialogue and disengagement with such institutions leaves the gap between religious and secular universities widely open and mutual mistrusts persevere.
- Responsible bodies for enhancing research at university and society as a whole should critically evaluate some terminologies used and in so doing must be careful when equating higher education with economic prosperity. Universities are think-tanks that propose solutions and nurture economic advancement, but they are not responsible for economic underachievement in a society. Universities should create links with the industries and build bridges with the societies that host them.

With regard to this last suggestion, it has been argued that historically, universities especially in the eighteenth to nineteenth century Europe, were not at the forefront of knowledge creation (Scott, 1984), rather universities benefited from the relatively well-developed economies and industries of the time. These developments forced universities to introduce grand reforms and adjust their curriculum to the demands of the emerging economies (Muborakshoeva, 2013). Thus universities grabbed this 'imposed' responsibility on them with both hands. Today they have become knowledge producers, which means that in the developed world societies and their industries and economy are dependent on universities. Unless investment in higher education grows extensively Pakistani universities will hardly become world-class universities.

As far as funding is concerned, it is getting harder for universities the world over to justify their research activities to society and getting fund from public budget. Research universities globally are

publicly funded with the exception of a few private universities and this is largely due to the fact that universities were seen as a public good (Altbach, 2007). With the neoliberal economic approach since 1980s it was highlighted that because university education brings enormous advantages to the individual then it is a private good and individuals should contribute to the cost of higher education. Student tuition fee alone though cannot sustain research universities (Ibid, p.12).

Therefore perhaps these two additional measures should be taken into account by universities in Pakistan and developing countries. Firstly, consider differentiation of funding for universities as Altbach (2007) suggests. He states that "research universities generally constitute part of a differentiated academic system – an arrangement of post-secondary institutions with varied roles in society and different funding patterns" (p.5). He then gives the example of Germany which considers all its universities as research universities and as a result struggles in funding all of them. Countries such as USA and UK that do have the differentiated funding system for higher education, are very successful in developing their research universities. Secondly, state and universities should play their respective roles in transforming universities from ordinary to research or world-class universities. As suggested by Salmi (2009) the universities should be pro-active in working with organisations such as the World Bank for obtaining technical and financial support. State should support universities in these initiatives and explore creative ways of organising research at universities and increase funding for research at universities if a knowledge-based society is desirable.

Consequently, it is hoped that the findings of this research are useful for the government, HEC and university management and faculty in Pakistan and are informative for other universities in the developing countries. Universities in the developing countries could benefit from learning about successful reform initiatives by HEC and reflect on the persistent challenges universities face and how to overcome them.

Notes

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Evaluating the work of Singapore's Malay-based Organisations in Raising the Educational Attainment of the Ethnic Community: A Continuing Analysis

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Abstract: *Statistics indicate that demographically, Singapore's minority Malay community, unlike the other ethnic groups in the small multicultural, multi-religious island-state, has yet to 'mature' and contribute fully to the country's economy. A subsequent argument is thus made on the need to ensure that learners from the community be developed in the best possible way so as to maximise their potential capacity and thus value-add to the nation's growth. A discussion on the various issues affecting Malay educational attainment is made as preface to the ensuing review of past programmes undertaken by local Malay organisations to improve the situation. The article will conclude by proposing further approaches to collectively raise the educational attainment of the ethnic group.*

Keywords: *Malay educational attainment, integration and consolidation, conscientisation process, Singapore*

Introduction

Official statistics indicate that the minority Malay community of Singapore, unlike the other ethnic groups in the small nation-state, has yet to mature and contribute fully to the country's labour force. By 2014, the Malay population in Singapore stands at 516,657 comprising 13.3 per cent of the total resident population (Department of Statistics, 2015). Malays form the second largest cluster with the Chinese forming the biggest group. Today, the population structure, in general, has advanced from one that has a large base to one that is becoming narrower, with an upwards bulge taken up by those in the working ages. The Malays nevertheless, are still the youngest demographic group in the country, with an average median age of 31.4 years compared to the national median age of 37.4 years (AMP, 2012).

Currently, 22.4 per cent of Malays are in ages below 15 years compared to 17.4 per cent at the national level. This implies that the larger proportion making up the community have yet to enter the nation's work force compared to the already falling share from the other ethnic communities. It bodes potential for the ethnic community to be a significant contributor to the country's economic production in about 10-15 years down the road. As already pointed out by many of the nation's commentators, the future development of the country will very much depend on how the government builds up the quality of our youths today. In this respect, attempts at enhancing the educational achievement of youths from the Malay community must be considered a national priority.

As a group where a majority of its members has still to reach full adulthood, the Malays as a community face many challenges such as young working parents having to juggle the burdens of guiding and supporting their children as compared to the other ethnic groups making up the population (conversely, the same set of data shows the other ethnic communities being burdened with taking up the task of supporting their elderly). Another challenge arises from the effect of the

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government allowing for a greater influx of better educated individuals emigrating from countries ethnically associated with the Chinese and Indians. This has resulted in the aggregate achievements of these communities being inadvertently inflated in contrast to the Malays. Unfortunately, these factors combined have contributed towards making the effort required of the latter to uplift their status all the more difficult. As will be discussed further into this article, factors such as these serve to fuel the negative self-image already prevalent among members of the Singapore Malay community.

The current demographic advantage presenting itself to the Malay community should provide an excellent opportunity for leaders of the ethnic group to take up the challenge of improving the educational achievements of its youths and thereby ensuring that a quality workforce gets developed in the near future. One way of tackling this issue is to understand the reasons for the weakness by looking into the community's origins and the subsequent challenges that evolved from it.

The Singapore Malays

A majority of Singapore's Malay community are able to trace their origins to Java, Indonesia with an additional 15 to 20 percent from Bawean Island, situated in the Java Sea, north of the city of Surabaya (Aljunied, 2002). The Javanese settled down during the period of British colonial rule from the mid-nineteenth century to just after World War II as they were attracted both by urban wages promising a higher standard of living as well as release from the constraints of their native villages where they were often able to only occupy the lower rungs of the economic and social order. Officially, the Singapore government defines being Malay as any "persons of Malay or Indonesian origin, such as Javanese, Boyanese, Bugis, etc." (Singapore Department of Statistics 2010, p. 181). This implies that, similar to the Chinese and the Indians, members of this ethnic group are also descendants of immigrants and thus share similar historical status. The difference however, lies with the fact that unlike the other ethnic groups in the nation-state, the Malays are recognised as the indigenous inhabitants of the land as their ancestors came from within the region, specifically peninsular Malaysia, Sumatra, Java, and the other islands of the Indonesian archipelago. This recognition is enshrined in Article 152 of the Constitution of the Republic of Singapore (Attorney-General Office of Singapore, 1965).

Alatas (1977) observed that in the past, the British colonialists had looked upon the Malays of Malaya, which then included Singapore, as simple farmers and fishermen with strong religious faith and a 'racially-inherent' tendency toward loyalty and deference to authority. It provided justification for them preferring to recruit Malays for positions in the police and armed forces, and for unskilled positions in the public service. An official government census conducted in 1931 reflected that 18 percent of Malays at the time earned their living as fishermen while another 12 percent worked as farmers. An overwhelming 70 percent however held jobs in the urban cash economy; either in low ranking public service positions or as gardeners, drivers, or small-scale artisans and retailers (Vlieland, 1932).

Three decades on, data collected in 1961 recorded similar figures with more than half of Singapore Malays depending on employment in the public sector (Singapore Department of Statistics, 2009). Malay identity however had, by then, evolved to become one that is increasingly couched in religious terms, with Malay being taken almost as a synonym for being Muslim, and with most Malay organisations taking on a more religious facade (Lian, 2001).

Unfortunately, as pointed out by Imram Mohamed, Chairman of the Association of Muslim Professionals, although very much a part of Singapore's modernising society, it has become obvious that the Malays, as a minority ethnic group, are today seen by others as still occupying the bottom rungs of the country's socio-economic ladder (Association of Muslim Professionals, 2006).

The 1980 Census Results

The lag especially in the educational front was finally discussed openly as a result of the 1980 census results. While initially talked about by government and community leaders in 'hushed' tones due

to political sensitivities and in not wanting to emphasise the racial divide, the issue of the Malays being a 'less progressive' community became a topic of national debate after the census results were published. In a speech commending the achievements of a government supported Malay organisation during its 25th Anniversary Dinner and Awards Presentation (AsiaOne News, 2007), Mr. Lee Hsien Loong, the country's Prime Minister reflected on statistics which then painted a gloomy picture:

- Only one in six Malay students were able to attain five 'O' level passes at the GCE 'O' examinations[1].
- Only 1.5 percent of all university graduates and 2.5 percent of students enrolled for higher education were Malays.
- Only eight percent were considered to be professional and technical workers (including school teachers).
- Only two percent of all administrative and managerial posts were held by Malays.
- Malays were dropping out of the competitive school system in large numbers while those who managed to continue past primary school were mainly concentrated in vocational education programs largely associated with underachievers.

Additional statistics also indicated that while 86 percent of the Malay work force was employed in the clerical, service, and production sectors at the time, these were basically low-skilled and low-salaried positions. For instance, according to data from the manufacturing industry, 45 percent of all employed Malays then only worked on assembly lines and mostly in foreign-owned electronics factories.

These disappointing statistics led to government leaders' realising the potential threat posed by the close association between Malay ethnicity and low educational achievement and occupational status. The issue became even more jarring when observers point out that on a wider scale, the socio-economic progress of the Malays has continuously remained statistically poorer when contrasted against the progress of the Chinese and Indian communities along the same range of indicators (Singapore 2025, 2011) The community's lag in educational attainment is seen as a major contributor to this problem. Leaders from the ethnic group began to make clearer their demands to ensure progress for its members. Debates in Parliament, for instance, put forward questions such as what more can be done to help Malay students' progress at the same rate, if not better, compared to their peers from the other race groups (Bland, 2010).

The sudden thrust in highlighting issues faced by the Malays in effect led to a renewed sense of urgency in looking for possible ways to resolve the community's woes. In 1982, the authorities finally declared the Malays' educational difficulties a national problem which justified government-backed action to improve their academic performance (Suratman, 2004). Considered a landmark decision, the event denotes a turning point where numerous government-initiated or government-sanctioned strategies aimed at resolving the situation were put in place. These included exchanges resulting in the formation of *Mendaki*, a pioneer self-help group 'dedicated to empower the community through excellence in education in the context of multi-racial and multi-religious Singapore' (Yayasan Mendaki, 2015).

Issues Impacting Education of the Singapore Malays

A number of theoretical frameworks have surfaced to explain the lag in the educational achievements of the Malays in Singapore. This section attempts to briefly touch on discussions which relate primarily to the interplay of behavioural and cultural construction as well as the unintended consequences of the nation's structured education landscape.

Behavioural and Cultural Construction

Analysts mention that because Malay students come from a very low base, many are still trapped by the vicious cycle of poverty where their families have been in for generations. Students from low socio-economic background's responses to education are shaped by the limitations they face in their lives. In explaining how personal motivations and responses are shaped, Anthony Giddens (1991) points out that humans are not passively shaped by social or cultural phenomenon. Instead, we react intentionally and this in turn impacts the construct of our individual identity. The self-identity which is eventually formed is therefore the product of a person's own reflexive understanding of his or her history. Giddens makes it clear that while self-identity cannot easily be changed at will, it is nevertheless fluid in nature and alters depending on the person's reflexive beliefs about her or his own biography.

Malay students suffering from low economic status are severely handicapped in the way they respond to life's challenges due to the lack of resources or support at their disposal. They are hampered by a system which favours and places in great esteem theory-based learning in contrast to hands-on learning, an alternative more suitable for those from less advantageous backgrounds. Following Giddens' theoretical framework, the current situation translates to these lesser performing students perceiving only a very limited circumference of opportunities for themselves and this is reflected in their subsequent lack of motivation to perform.

In addition, these Malay students, more often than not, also belong to families which are caught in a vicious cycle. This is primarily because they do not have the same resources as other families to break out of the phase. The cycle, for example, begins with a crisis, such as teenage pregnancy or substance abuse, which financially stable families can resolve because structurally, they will have ready access to the needed resources. Poorer families on the other hand have far fewer options. When faced with such crisis, individuals from these backgrounds tend to develop a fatalistic mind-set which, due to structural circumstances such as not having access to an effective financial and emotional support network, no longer sees value in long term sacrifices necessary to attain educational achievements. This is especially since these are no longer seen as achievable investments. The pressures of a continued mismatch between what they see as the prevailing expectations of society and the 'futility of life' they are trapped in activates a form of coping mechanism that leads to the creation of mental models based on an easier-to-accept culture and ideology of poverty. This is evident from the responses collected during a series of dialogue sessions previously conducted with local Malay youths. When asked for their insights on why the community has not been progressing, an enlightened participant reasoned that "We stick together and we feel comfortable. I think that may be the reason why we are too comfortable. Why we are so ignorant. Why we are so *alah kadar* ('mediocre', implying very lowly in expectations)" (Juhari 2012, p.177). The response tells of a situation where members of the Malay community tend to reinforce each other's negative perceptions of themselves and their ethnic group. This cumulatively results in a community suffering from a defeatist mind-set possessing low aspirations for themselves.

The pervasiveness of such a worldview results in a community plagued by weakened capacity both to dislodge persistent negative beliefs and to mitigate the ensuing self-fulfilling prophecies. These are combinations which serve to sustain stubborn social inequalities. Regrettably, these families fall deeper into the 'abyss' as such mind-sets exposes them to further risks of impoverishment and lowered educational opportunities. Fatalistic clichés such as 'it's fated', 'it's God's will' or 'what will be, will be' become a cherished albeit misconstrued notion. This cycle, if deprived of any forms social intervention, unfortunately tends to run over generations.

Education Landscape

In an ethnographic study focusing on the *Malay Underclass* by Mokhtar et al (2012), researchers came to the conclusion that Singapore's education system caters to the mainstream with only few

advantages allocated to those at the bottom end. They cite this as adding to the woes of a community already finding it difficult to break-free from the low income trap. This notion is shared by other scholars who opined that despite key themes such as globalisation, diversification, differentiation and segregation being the formulaic mainstay of the country's education planners, what is now becoming explicitly specific to members of Singapore's Malay community is that outcomes are no longer level. Several reasons for this have been highlighted. For instance, the introduction of the streaming process[2] in the education system since three decades ago have resulted in several generations of Malay parents managing to graduate only from the slower or less prestigious tracks due to their disadvantaged socio-economic backgrounds. The cohort will then proceed to secure employment with jobs from the lower end of the career ladder. Unfortunately, the experiences of these parents make them less well-equipped both with the know-how and resources to prepare their own children for the challenges of the current education system. In fact, over the years, these parents are made more disadvantaged due to the continuous refinements and increased sophistication imposed upon the streaming process. With the advent of curriculum niches, specialised schools, integrated programmes, flexible streaming, and direct school admission, the Singapore education landscape has made itself far too complex for such parents to comprehend, let alone act as effective guides to their children (Tan, 2010). Critics have even argued that Singapore's much lauded meritocratic educational approach have now degenerated into a form of 'parentocracy' where academic success no longer hinges solely on pupils' merit or hard work but increasingly on the knowledge, resourcefulness and extent of involvement of their parents (Ong, 2014).

Classroom Supplementation as an Immediate Strategy

While Mendaki is not the first Malay organisation to be established to serve the needs of the Malay community, it is nonetheless the first that is fully backed and predominantly funded by the government. This was at a time when there was finally open consensus on the need to overcome the deficiencies experienced by the community. Immediately, plans were made to try and raise the level of educational attainments of the ethnic group. Formed in 1982, the Malay self-help group immediately implemented its community-wide education programme. Primarily, this came in the form of the Weekend Tuition Scheme. Today, this is seen as a 'stop-gap' measure to raise the educational capability of the Malay community. Other Malay organisations soon came in full force with similar programmes. Jamiyah, another Malay organisation for instance, revitalised its 'Lend-a-Hand' project targeting Malay youths and was rewarded with many of its student-participants achieving favourable results in their examinations (Jamiyah, 2014). There is even a joint initiative involving three Self–Help Groups which cater each to the needs the Malay, Chinese and Indian communities respectively. Under the Collaborative Tuition Programme (CTP), Mendaki, the Chinese Development Assistance Council (CDAC) and the Singapore Indian Development Association (SINDA) came together to offer tuition to students of all ethnic groups. Currently offered at 61 selected Tuition Centres, CTP was launched in 2002 to allow students to "take part in tuition programmes offered by other self-help groups, optimising the use of community resources and providing more convenience to students from less well-to-do families" (Goy, 2013).

Subject Mastery

Despite the heavily subsidised tuition service offered to students from the community, it dawned on the leaders that Malay students seem to be particularly weaker in certain subjects, specifically Mathematics and English. The question arose as to what other initiatives can be introduced to assist students in overcoming such deficits. An obvious answer then was that efforts should be directed at subject mastery.

By 2012, new initiatives such the Reach-out, Progress and Excel (RoPE) Programme were introduced by Mendaki in several primary schools. Targeting the learning of Mathematics, the

programme provided tips and strategies for Malay students to better appreciate and understand the subject. Other programme variations depending on target groups followed suit. For example, the 3M (*Maju Minda Matematika*) programme was introduced to equip parents with skills they can use to coach and motivate their children into mastering the subject at home.

Subsequently, other programmes were introduced to target mastery of other subjects like English. For example, Mendaki spearheaded the Read-with-Me Parent Training Programme for English. Similarly, the Association for Muslim Professionals (AMP) introduced the Partners in Learning Workshop catering to students with the aim of enhancing their subject mastery in English. In time, other Malay self-help groups also organised writing and creativity courses with the same objective in mind.

Developing Resilience

With a better understanding of educational psychology, it became increasingly clear to Malay thought leaders that tuition and subject intensive enrichment classes, although well received, have still not been able to create sufficient positive impact on overall student grades. It led to discussions that the current external 'push' approaches needed to be complemented with internal 'pull' strategies. It was felt that instead of being told to, Malay students needed to be inspired to want and achieve success for themselves. Affective-based programmes aimed at developing resilience were then introduced targeting students from difficult backgrounds. For instance, in 1993, the AMP introduced a programme called Dr Bola or The Soccer Doctor Programme ('AMP Rancang Luas Projek Dr Bola' – AMP Plans to Expand Soccer Doctor Project, 1993). The target group was students from the Institute of Technical Education (ITE) and while the 'carrot' to the players was the delight in taking part in the coaching and practice matches, it was the subtle sharing sessions conducted prior to the game and even during the warm down sessions that made much impact. During these 'teachable' moments, positive character building messages are discussed and subconsciously instilled into the participants. A version of the programme involving more suitable activities for girls was later introduced under the label the 'DNA' Programme (Developing New Aspirations). 4PM, another Malay organisation, has also been recognised for its success in creating the 'BITE' (Bestari or 'Smart' ITE) Programme targeted at building resilience among these youths. To cater to students who are even more in the 'at-risk' category, Mendaki has taken the lead in collaborating with other Malay organisations to organise a series of impactful activities under the 'Max-Out' Programme. The programme provides a second chance for out-of-school youths to get back into the classroom to receive formal education. Max Out adopts a holistic approach 'by combining academic instruction with character development to provide the best possible support for these youths to realise their potential' (Yayasan Mendaki, 2015).

Even students who are considered 'safe' are not forgotten as the objective is for them to reach even greater heights. For this group of students, AMP introduced the 'SWAT' (Speakers, Writers and Thinkers) Programme targeting secondary one to four students from the Express Stream (refer to streaming process). Based on the same objectives, other programmes which have been conducted include the 'Empowerment for Girls' and 'Engagement for Boys' series under Mendaki, and the 'Youth in Action' Programme managed by the Community Leaders Forum (CLF). The Islamic Religious Council of Singapore (MUIS) even got into the picture with the success of their aLIVE (Learning Islamic Values Everyday) workshops. These events are aimed at strengthening spiritual and physical development so as to create responsible Muslims who excel in their education.

Motivation and Mentorship

Inspiration needs to be sustained. With this in mind, programmes aimed at instilling this positive quality were subsequently introduced. The list now includes Mendaki's Talent Development Programme catering to better achieving students with the hope of driving them towards higher levels

of achievement. Motivational talks, examination preparation programmes, and career awareness presentations were regular features organised to ensure that Malay youths remain inspired to achieve academic success. In addition, youth leadership programmes designed and conducted by Malay organisations such as *Taman Bacaan* (Reading Garden) ensures that participants remain focussed in wanting to achieve the best for themselves. Even neighbourhood mosques contributed to the effort by organising holiday programmes aimed at instilling positive values which will motivate youths to strive hard in their faiths, in their studies and in life in general.

Another set of affective approaches introduced to Malay students is in the aspect of mentorship. In the context of Singapore's Malay youths, the mentorship approach exposes them to role models which they can look up to and where the transmission of positive values can be reinforced. Programmes based on the mentorship platform include Young AMP's Windows on Works (WOW) where junior college and *madrasah* (Islamic schools) students are paired up with young graduate professionals and Project Protégé by Mendaki which selects students already aspiring to be in particular vocations and attaches them to professionals who have already made their name in that field.

Social Consciousness and Youth Activism

The development of a socially conscious youth makes for an achievement-oriented learner. Based on this rationale, Ain Society designed and organised *Kembara Perkasa*, a programme involving humanitarian trips to lesser developed countries. In 2013 for example, a funded trip to Vietnam was organised involving visits to several orphanages in the country. Reflecting on the subsequent community service project that they had to complete, participants shared that they felt empowered having knowingly contributed to the betterment of others. The sense of pride in the successful completion of their 'mission' gave them renewed motivation to achieve success in all the other aspects of their life's efforts, especially those concerning their studies. Another example worth highlighting is the 'Praxis' programme, a joint Mendaki Club and Young AMP effort which was started in 2010 (Yayasan Mendaki, 2010). The 4 days/3 nights residential programme comprise a series of thought provoking and even 'confrontational'[3] activities including visits to social welfare organisations. Positive results have been noted with some of its participants taking responsibility in designing and initiating their own community projects. As an intended benefit, many of these participants became each other's source of inspiration and motivation to further their studies so as to better serve humanity.

The Malays Today

Cumulative effects of the many intervention processes initiated for the Malay community since more than thirty years ago can now be examined. It can be said that the Malays of Singapore have today measurably improved their plight. Success in education has been translated into raised socio-economic status of the ethnic community. A newspaper article published in The Straits Times (Wee, 2007) announced that there is now a growing Malay middle class displaying increased purchasing power. As more Malays are holding higher skilled and better-paying jobs, median incomes have correspondingly increased. Also, it has become evident that more Malay families have upgraded to better housing with the vast majority (93 percent) legally possessing their own homes. The proportion living in four-room or larger public housing flats and private properties has been raised by more than six times (from 11 percent in 1980 to 71 percent in 2005). There has also been a steady increase in Malay ownership of high-end consumer durables such as cars, air-conditioners, personal computers and mobile phones. Collectively, these indicators reflect a community enjoying higher living standards and a better quality of life.

Persistent Gaps

Unfortunately upon closer scrutiny, the discerning observer cannot avoid noticing that these indicators of 'success' do not really reflect the true picture of the Malay community's achievements especially when compared to the progress shown by the other ethnic groups during the same period.

In 2014, Singapore's Ministry of Education released figures reflecting educational achievements over a 10-year period between 2004 and 2013. The statistics revealed that the percentage of Malay students who attained the distinctive A-star (A*) to C grades in PSLE Standard Mathematics hovered between 55 and 60 percent, hitting a peak of only 61.1 percent in 2010. An issue of greater concern however is that on average, a whopping divide of more than 20 percent between the achievements of Malays and the rest in the country remains unchanged throughout the period (Ministry of Education, 2014).

The same set of statistics also reflect Malay students' performance in English Language as being continuously behind that of mainstream society. While the persistent gap is much smaller during the 10-years, it nevertheless provides very little comfort as the margin has been increasing to the current 5%. It adds to the worry that the community will continue falling behind the other ethnic groups for the subject.

The failure to achieve credible results at the primary level occurs despite the fact that a high proportion of Malay students are made to enrol into the Learning Support Programmes (LSP). These are supplementary lessons offered to students in Primary One and Two targeting specifically those who face learning deficits in English and Mathematics. Based on MOE statistics, about 32 percent of pupils in the LSP were Malays (MOE, 2014). Bearing in mind that the Malays comprise less than 14 percent of the total population (Singapore Department of Statistics, 2009), this over-representation indicates that a substantial percentage of Malay students was not school-ready by the time they entered Primary One. Ahmad (2007) explains that this can be deduced from figures which showed that every year, an estimated 5 percent (or at least 2000 children) did not attend preschool prior to their entry into Primary One and it is believed that a majority of them were Malay students (MOE, 2006). Ahmad cites a previous study in 2003[4] which indicated that Malay children who did not attend preschool education were shown to be at a definite disadvantage and were never able to completely catch up with their peers at the same level. Reasons cited by parents for not sending their children to kindergarten were mainly financial despite the availability of several preschool subsidies for low income families.

In one of its annually published *Policy Digest,* Mendaki highlighted statistics which reflect the underachievement of the Malays both at the education and socio-economic fronts. The Digest stated that 5.6 percent of Malay students who sat for their Primary School Leaving Examinations (PSLE) in 2005 failed to get the required grades to be eligible for secondary school. This figure is more than double the national figure of 2.2 percent for the same year. Furthermore, it was highlighted that out of the 1100 pupils who failed the PSLE in 2005, about 130 of them (or 12 percent) had failed the examination for the third time (Yayasan Mendaki, 2007). Again, the trend indicates that Malay students are likely the ones making up the bulk of this number. It becomes an issue of greater concern when one realises that the number of Malay students repeatedly failing the PSLE serves only to inflate the yearly figure.

Nonetheless, with the introduction of the 10-year compulsory education system allowing for differentiated tracks at the secondary level, many are now presented with the opportunity to advance their studies albeit at a slower pace (Hodge, 2007). This should then allow for greater numbers entering secondary schools. Expectedly, it translates to an increase with 85.6 per cent of Malay students admitted into secondary schools. Nevertheless, this is still a poor showing when compared to the more than 95 per cent entry rates shown at the national level. It indicates that many are still not able to attain the minimum required to advance their studies to secondary school.

Finally, when looking at the higher levels of education, it can be seen that more Malay students have done well enough in their exams to gain entry into the local universities. Unfortunately, the

figures have only gone up from the 1.5 per cent in 1982 to the current 6.8 per cent. This is far below the 28.3 per cent entry rates reflected by the cohort from the other races (AMP, 2012).

The persistent underachievement experienced by students from the Malay community can be said to be the result of the multiplicity and interconnections of issues preventing these pupils from transforming their lives. Malay organisations such as Mendaki, AMP, Jamiyah and Ain Society have done much to contribute to the betterment of the Malay community. Through their efforts, a large segment of the community is said to be making steady progress. Yet, despite these, a significant proportion is still lagging behind in their studies. Malay organisations are very much handicapped in wanting to help students from the ethnic group achieve their best. As non-policy making bodies, they lose much of their effectiveness in being able to work only at the periphery of the existing education structure. Nevertheless, if looked at from a new perspective, there can be ways to resolve the situation.

Integration and Consolidation

The different approaches that have been introduced over the years by Malay organisations were crafted after looking at particular problems from all possible angles and attempting to achieve a solution through the variety and diversity of programmes currently available. These approaches are conceptually valid in their premise of elevating the educational achievements of Malay students and collectively raising the status quo of the ethnic community. Unfortunately, overall results thus far do not forward the promise that the ethnic group will experience success in the near future.

One way of analysing the shortcomings of the available programmes is to see them as merely piecemeal solutions attempting to resolve a presenting problem. Unfortunately, the difficulty being looked into is only part of a series of interrelated issues compounding the larger crisis. Cases of truancy, for instance, may on the surface, reflect the offenders' negative attitude towards classroom learning. Upon closer investigation however, one will usually discover other mitigating circumstances such as the parents not having enough money to contribute to the student's bus fare or even needing the child to stay at home so as to look after a younger sibling while they go to work.

Government agencies and social welfare organisations have been very active in providing assistance to individuals and family units experiencing difficulties. There are ready funds which can be disbursed based on the genuine needs of each case. However, in many instances, these services are unaware of the existence of the other. The programmes work in silos and are oblivious to the ways of how another operates in providing help to the families in need. In short, while the family unit accepts the best possible help from the relevant agencies, the aid that they receive tends not to complement or synergise. The school delinquent is counselled and made to undergo behaviour management programmes but little is done to ensure that the family be made more supportive of the child's education. Even if financial assistance is made available to the family, without proper guidance and supervision, the needed emotional support for the student may be lacking. In the end, there can be no win-win situation as the intervention lacks the holistic approach. Such attempts at helping the child will not lead to fruition as the bigger issues to do with the family do not come under the welfare organisation's purview and is subsequently ignored.

A possible solution can therefore be made by looking at ways to integrate and consolidate the existing forms of help made available by the Malay organisations. A framework underpinned by such an approach is depicted by one primary school's aftercare service for its students. The model is also known as the wraparound approach to education.

The School-Based Wraparound Approach to Education

The primary school had identified 8 Primary 1 students who were facing difficulties in adjusting to school life. These pupils were facing problems such as absenteeism, lack of family support, falling

behind in their grades and poor attitude to their studies. As the students happen to be Malays, the school sought the assistance of a Malay organisation which subsequently enlisted the help of its partner organisations. A coalition made up of teachers of the school and various representatives from the Malay self-help group, a learning centre and a research centre was formed to craft an after-school care programme for this small group of Malay students. Apart from supplementary academic activities, the primary objective was to motivate these students to excel in their studies thus releasing them from the vicious cycle.

The first issue to crop up was that these students' families did not have the financial means to pay the cost of the after school care sessions. Though various funding schemes were available, none of these students qualified as their families did not fit into any of the required criteria. The primary school then offered the free use of a space at a corner of their library. Through generous private donations, daily lunch was provided. Realising that another obstacle was in the form of family members unable to find time to fetch these students after the care sessions, donors also paid for the cost of the school bus transporting these children back to their homes. The Malay self-help group paid for the learning centre to provide a trained tutor to supervise the students. At no additional cost, the learning centre also worked together with the other representatives to design a customised curriculum for the afternoon sessions. At the same time, the Community Services division of the self-help group was tasked to look into ways of helping the family unit under their existing programmes.

Once all was finalised, the after-school care programme kicked off with daily two-hour sessions conducted after the dismissal bell was rung. The young pupils are accompanied by their class teacher to the library and handed over to the after school care tutor. This provided an opportunity for the two teachers to interact and consult each other on the development of these students. Matters such as the list of spelling words for these students to master for their classroom lessons were conveyed so that the after school care tutor can take the opportunity to prepare these students better for such lessons.

At the time of writing, the programme is still in its infancy and though it is premature to announce any kind of concrete results, teachers, parents and students involved had provided favourable feedback during the preliminary interviews. The wraparound approach opens itself to further integration and consolidation by welcoming more parties involved in the process. A private vendor specialising in cognitive brain development for example, has approached the coordinators and offered to conduct several of their sessions on these students at a nominal price. The self-help group in turn has agreed to foot the cost. The vendor is now seeking the advice of the organising committee in designing the lessons. In addition, a group of concerned professionals is in the midst of setting up a 'mobile parent school'. Volunteer members intend to visit identified homes, engage parents, and provide advice and counselling regarding the well-being of their families. They believe that this will remove obstacles preventing busy or uninvolved parents from attending organised activities. The families of the 8 students in the programme will now be at the top of their list. Lastly, a group of teachers are organising themselves to act as 'bridging agents'. This comes with the realisation that being front liners in the classroom, they are in the best position to identify students in need and subsequently refer them to the relevant 'touch points' making more real the potential of the school-based wraparound approach. The first step for these educators, of course, is to familiarise themselves with the variety of help that is available to such students and their families.

Developing 'Conscientised' Learners

Another approach focussing on the principle of integration and consolidation of existing programmes can be related to the process of developing conscientised learners. According to Freire (1973, p.51), conscientisation is a particular kind of critical consciousness stemming from a recursive process of "reflection and action" targeting individual and social transformation. If we contextualise it to issues facing the Malay community, it can be seen as initiating a process where members reinterpret their

observations and experiences and begin to question their community's reactions to social challenges. Conscientisation is a mark of capacity building for critical thinking where the individual begins to question the state of affairs; where he or she no longer accepts the situation and wants to change it for the better. It leads to renewed aspirations for youths of the Malay community and triggers actions for improvements in their personal lives with the hope that their actions will collectively contribute to the betterment of the community.

Research on the conscientisation process in the context of Singaporean Malay youth have resulted in a framework which proposes exposing them to five core experiences – 1. Dialogue, 2. Reflexive learning 3. Interculturality 4.Empowerment and ownership, and 5. Mentored leadership (Juhari, 2012). Individually, these experiences are already made available via the variety and diversity of programmes currently organised by Malay organisations. For example, it was previously mentioned that the *Kembara Perkasa* Programme allows its participants to experience elements of reflexive learning by providing opportunities for them to observe and contribute to the betterment of the communities that they visit. The next move, based on the framework, is for these youths to undertake further activities which underpin the other stated core experiences. This can perhaps take the form of an interfaith programme that allows participants to practice dialogue and experience interculturality. What is lacking however, is a mechanism that functions to facilitate these youth' integration and consolidation of these experiences.

A proposed solution lies in the form of a cyber-tracking system where participants are provided with an online platform where they can reflect, record and share as they undergo various experiences in the four or five years of their secondary schooling. These youth thus remain motivated to avail themselves to as many of these experiences by participating in programmes managed by Malay organisations.

Conclusion

In the book *Scarcity: Why Having Too Little Means So Much* (Mullainathan and Shafir, 2013), the term 'bandwidth' was used to explain the idea of mental capacity. In the context of poverty, limited 'bandwith' indicates that because of the life situation that they are in, the poor are limited in their mental capacity to think and do many of the things the rest of us consider routine such as going to work regularly and punctually, pursuing higher education, getting a professional degree or spending money without having to worry about having enough at the end of the month. This inability to think critically is compounded by the daunting processes imposed when requesting for assistance such as the need for meticulous information and detailed documentary evidence. This is very much a disincentive for needy individuals. In the case of the lesser performing Malay students, it becomes another retarding factor preventing them from seeking and receiving the help which can allow them to focus on their studies.

Take for example, the case of the eight students involved in the after school care project mentioned earlier. When their parents were asked why they did not previously attempt to apply for financial assistance, the reply was that it took too much work and thinking. Also, from their experience, the effort was often futile. Rather than relying on quality care provided by the after school programme, they therefore chose the lesser demanding means in obtaining the services of a caretaker. Usually, this comes by way of arranging for an older sibling or grandmother to take care of the child. These parents probably do understand that there is lesser value in the choice that they made. Nevertheless, it is for them a much more convenient option when compared to an alternative which, in their eyes, is an arduous yet pointless task to undertake. There is also the issue of cost. It was only after the school offered to provide the students with free meals and the convenience of a bus ride home did these parents accept the idea of allowing their children to participate in the programme.

On the issue of educational attainment in the current landscape, the question to pose to the more successful members of the Malay community is this: Do we wait for those trapped in the vicious cycle to demonstrate effort at helping themselves before we offer our hands to assist? Or do we show understanding and empathy by willingly reaching out to them and offering whatever help that can be rendered even if it is not asked for? The former is based on the belief that there should be equality of opportunity with the amount of assistance given only when personal effort is shown. The latter is based on the principal of equality of outcomes. It means going out of our way to understand the needs of the individual by identifying obstacles and offering the necessary resources to enhance their capacity to achieve the same outcomes as the rest of mainstream society. This is consciously done with the full understanding that these individuals lack the 'bandwith' to strive for opportunities to better their lives. The responsible choice for the Malay community should be for the latter.

This article is written in appreciation of the good work undertaken by Singapore's Malay organisations. It began by arguing that based on current demographic trends, the ethnic Singaporean Malay minority community is set to grow to become a more sizeable workforce compared to the other ethnic groups. It then rationalises on the need to maximise the future economic potential of this segment of the labour force by raising the academic achievements of its current cohort of students. From the perspective of the work of the Malay organisations, it then lists out the programmes which had been developed since the early 1980s. However, arguing that as well-intentioned as these programmes were set out to be, they have yet to deliver the promise of raising the academic achievement of the Malay community.

A recommendation is then made to build on the principles of integration and consolidation when looking at Malay students' participation in the available programmes. Specifically two models, the school-based wraparound approach and the conscientisation process were discussed. Though still to be fully implemented, it is hoped that the proposed models will go a long way in resolving the issue of academic underachievement of students from the community. Malay organisations must continue to galvanise the community while there is much enthusiasm and willingness among its members to help one another. Leaders of the ethnic group should continue picking out best practices to ensure that the educational attainment of the ethnic Malay minority community reaches parity with the rest in the country, if not better.

Notes

[1] 5 'O' level passes is generally taken to be the benchmark for credible performance in the GCE 'O' level examination

[2] The streaming process at the time involved 3 basic tracks. Based on their performance in the Primary School Leaving Examinations (PSLE), students are channeled respectively into the Express, Normal (Academic) and Normal (Technical) streams. Students who were not even able to qualify for these levels are channelled to the Institute of Technical Education (ITE) for a more vocationally-oriented education. A small number however, can still be retained if they are not able to meet the minimum standards.

[3] In one activity, participants were instructed to pin on badges where stereotypical descriptions based on class and race were written. They were then made to discuss/debate/argue to see if these labels are justified.

[4] Although unpublished, the author cites statistics taken from Mendaki's outreach efforts from August to November 2003. (Primary One education in Singapore begins at age seven and the new academic year begins in January.) The scheme enrolled fifty-nine children aged six years who had not previously attended pre-school. They were registered into preschool centres for an intensive 2-month bridging programme. At the end of the programme, post-test scores indicated a 1-year gain in terms of the children's foundation skills. Nevertheless, despite their encouraging results, these children would still have entered Primary One with a learning deficit, albeit by a narrower margin.

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Cooperative Learning Principles Enhance Online Interaction[1]

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Abstract: *Research suggests that cooperative interactions are associated with enhanced cognitive and affective outcomes. This paper describes eight principles that can be used to promote such interactions among students working in online environments. The principles derive from a well-established approach to education, known variously as cooperative learning and collaborative learning. Each principle is explained as to what it means, why it is important and how it can be deployed. The eight principles are heterogeneous grouping, teaching collaborative skills, group autonomy, maximum peer interactions, equal opportunity to participate, individual accountability, positive interdependence and cooperation as a value.*

Keywords: *collaborative learning, cooperative learning, computer supported collaborative learning, computers in education, Social Interdependence Theory*

Principles to Enhance Online Interaction

When many people think about computers, tablets, smartphones and other Informational Technology (IT) devices, they picture individuals alone seemingly fixed to the screens and keyboards of their devices. Similarly, when people think of students using those devices for learning, they imagine the students alone, perhaps at desks or tables in their homes, far from their classmates. However, such images of individualised involvement with electronic learning tools often fail to look below the surface. In reality, students are often using their devices to interact with others, and frequently those others are their fellow students.

The purpose of this paper is to share ideas for facilitating and enhancing those student-student online interactions. These ideas flow from a learning technology known variously as cooperative learning (Johnson & Johnson, 2013) or collaborative learning (Bruffee, 1993). In this paper, the neutral abbreviation 'CL' will be used. The paper begins with background information on CL, including supporting learning theories and research, as well as a definition. The main section of the paper explains eight CL principles, including what each principle means, why it is important and how it can be applied in IT environments.

Background on Cooperative and Collaborative Learning (CL)

Theoretical Support for CL

CL dates back to at least the 1970s and finds support in many theories of learning, including Sociocultural Theory (Vygotsky, 1978), Social Interdependence Theory (Johnson & Johnson, 2006), Humanist Psychology (Maslow, 1968), Social Constructivism (Palincsar, 1998) and Multiple Intelligences Theory (Gardner, 1993). In the next paragraphs, each of these theories is briefly explained and ways are proposed as to how CL might operationalise the theories.

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One theory operationalised by CL is Sociocultural Theory (Vygotsky, 1978; Jacobs, McCafferty, & Iddings, 2006). Three key ideas in Sociocultural Theory are the importance of language in cognitive development, the role of scaffolding – assistance provided by others, such as teachers and peers, and the Zone of Proximal Development (ZPD), the idea that students learn best when learning tasks are neither too easy or too difficult. CL helps with all three of these ideas: when peers discuss, elaborate, debate and explain to each other, they are using language to scaffold for each other, and this scaffolding can bring into students' ZPDs tasks that might otherwise have been too difficult, as well as providing a challenge to high achieving students for whom the tasks might otherwise have been too easy. This scaffolding can take place in person or online.

Another theory the tenets of which fit well with CL is Social Interdependence Theory (Deutsch, 1962). Social Interdependence Theory attempts to understand why people strive to help some people (i.e., they feel positively interdependent with these others), seem uninterested in the outcomes of others (i.e., they feel no interdependence with these other people), and actively seek the misfortune of yet other people (i.e., they feel negatively interdependent with these people). Based on this emerging understanding, educators have developed ways to encourage students to feel that they will benefit from the good fortune of others. This feeling has been labelled positive interdependence and will be discussed again later in this article. CL attempts to promote positive interdependence in a wide variety of ways, including each group member having different resources, e.g., information found online, group members performing different roles and group members reflecting on how they can enhance their group's effectiveness.

Concepts from Humanistic Psychology also come alive when CL is employed. Perhaps the most famous image from Humanistic Psychology is of a pyramid depicting Maslow's (1968) Hierarchy of Needs. Of the five main needs identified in the hierarchy, two needs that CL most clearly addresses are the need for belonging and the need for esteem. CL offers students a group to which to belong, a group whose members feel positively interdependent with each other. One means of promoting that feeling of belonging is for groups to develop common goals towards which they agree to strive. Furthermore, support from group mates encourages students to provide each other with positive reinforcement, which may go part of the way towards satisfying students' esteem needs. For example, when group members feel positively interdependent, they are more likely to praise group mates for putting forth effort to achieve the group's goal. Furthermore, CL strives to generate feelings of belonging and esteem not only within a small group but also throughout the class and beyond.

Social Constructivism is another learning theory that provides support and direction for the implementation of CL. The term Social Constructivism derives from the belief that students construct their own knowledge rather than that knowledge being transmitted to students by teachers and course materials. The word 'social' was added to 'constructivism' to highlight the belief that social interaction can greatly facilitate students' knowledge construction. Kuhn (2015) argued that collaborative cognition moves students' thinking to a higher level. For example, Hythecker, Dansereau, and Rocklin (1988) explained how group activities can encourage students to elaborate on their understanding of what they are reading.

The theory of Multiple Intelligences was developed by Gardner who also helped to popularise constructivism (Gardner, 1985). Multiple Intelligences posits that students are smart in a variety of ways and can become smarter in all those ways. Many teaching ideas have been developed in concord with Multiple Intelligences Theory (Armstrong, 2009). One intelligence identified by Gardner is interpersonal intelligence, which includes the abilities to understand and collaborate with others and to be a leader, as well as a preference for spending time with others, e.g., in CL activities. Yet another intelligence is intrapersonal intelligence, which involves the abilities to understand one's own strengths and weaknesses and to reflect on one's experiences, as well as a preference for sometimes working alone. While CL normally involves group interaction, the goal of the groups is the learning of each individual group member (Johnson & Johnson, 2013). Furthermore, many CL techniques, such as SUMMER (Jacobs, Power, & Loh, 2002) provide students time to work alone before interacting with group mates, and often in CL, students study together but are assessed alone.

Research and Practical Support for CL

A great deal of research and methodological development has been done with CL. This research covers a wide range of learners, subjects and modes of learning, including online learning. In general, the research suggests positive effects for CL on both cognitive variables, such as test scores, and affective variables, such as self-esteem and liking for school (Slavin, 1991; Johnson, Johnson, & Stanne, 2000; Ibáñez et al., 2013). Indeed, a steady stream of research continues to investigate many areas of CL, including research on online learning (IASCE, 2014). Examples of recent scholarly work that specifically addressed peer collaboration in digital contexts include among others, Cebrian-de-la-Serna, Serrano-Angulo, & Ruiz-Torres (2014); Denner, Werner, Campe, & Ortiz (2014); Kim, Lee, & Kim (2014); Pymm & Hay (2014); Smith (2014); Yang, Kinshuk, Yu, Chen, & Huang (2014).

CL can be defined as principles and techniques for helping students collaborate with peers and others. This paper will explain eight of these CL principles. Furthermore, hundreds of CL techniques have been developed. The key point about CL is that it is so much more than asking students to push their desks together in a classroom, or to connect to each in an online environment, and then hoping that they will collaborate successfully. Instead, CL provides teachers and students with a large and growing body of ideas for taking further steps towards making it more likely that student-student interaction will realize its potential. Additionally, the hope is that the collaborative skills and attitudes that students develop in the process of interacting with their peers will serve students well throughout their lives in whatever contexts they find themselves, as most contexts in life involve social interaction.

Eight CL Principles

This section of the paper explains eight CL principles, including what each principle means, why the principle is important and ideas for implementing the principle in IT groups. Readers should be aware of two points. One, different books and websites on CL espouse different principles, but a great deal of overlap exists among the various principles espoused. Second, readers should also note that a twosome or pair is considered a group. Indeed, in some ways, two members is the best size for groups, because in twosomes, students may have more opportunities to be active. Plus, students are less likely to be left out of the groups of two, and they can manage a twosome more easily than a larger group. Furthermore, after working in twos, students can pair with other twosomes to share ideas, thereby widening their resources and enjoying more interaction opportunities. The eight CL principles to be discussed in this paper are heterogeneous grouping, teaching collaborative skills, group autonomy, maximum peer interactions, equal opportunity to participate, individual accountability, positive interdependence and cooperation as a value.

Heterogeneous Grouping

Heterogeneous grouping involves students forming CL groups with fellow students who are different from themselves. The many variables on which students differ include past achievement, social class, nationality, ethnicity, religion, sex, diligence and personality. Many CL experts advocate heterogeneous groups, because when students learn in groups that are heterogeneous as to past achievement, they are more likely to engage in peer tutoring, as those higher in past achievement can help those who are, at least temporarily, lower achievers. Such interactions can benefit both parties (Webb et al., 2009). Heterogeneous grouping on other social and personality variables encourages students to see different perspectives and to learn to work with people different from themselves, thereby setting the stage for building a more harmonious society (Aronson, 2014).

Often, if students choose their own group mates, the resulting groups may tend towards homogeneity, and students may, at least initially, prefer such groupings (Jacobs, Power, & Loh, 2002). The most straightforward way to encourage heterogeneous groups is for teachers to assign students to groups. In a more student centric mode, teachers can discuss with students the meaning of

heterogeneous grouping and its potential benefits. From there, students can be encouraged to form their own groups. Even if students never meet face to face, they can post data about themselves. With those data and perhaps some discussion, students working in online environments can form their own heterogeneous groups.

Teaching Collaborative Skills

The CL principle of teaching collaborative skills means devoting class time for students to learn about and reflect on their use of collaborative skills. Many lists of collaborative skills exist (e.g., Underwood & Underwood, 1999). Skills important for CL include comparing understandings, asking for help, offering suggestions and feedback, responding productively to suggestions and feedback, asking for reasons, providing reasons, disagreeing politely, providing specific praise and thanks and attending to group functioning.

When students use collaborative skills, their groups are likely to function better (Soller, 2001), leading to more learning and more enjoyment of learning. Furthermore, these skills will advantage students in many areas of their present and future lives. However, not all students have these collaborative skills, and, perhaps more crucially, even if students have the skills, they may not use them routinely. As a result, instructional time devoted to learning these skills and practicing their use may be time well spent.

Johnson, Johnson and Holubec (2007) present a six step procedure for teaching collaborative skills. The procedure focuses on one skill at a time. First, students need to understand the importance of the collaborative skill and second, what the skill involves, as to verbal (the words used) and non-verbal (gestures, facial expressions, emoticons) elements. Third, students practice the skill apart from class content, that is, they work just on the skill, e.g., via a game or role play, without paying attention to the topic the class is studying. Fourth, students then combine use of the skill with learning of class content. Fifth, students discuss how well they, individually and as a group, are using the skill and how they might improve. Sixth, because time on task is often needed for students to reach the level of natural use of a collaborative skill, students persevere in practicing the skill. Teaching of collaborative skills may be especially important in online environments, such as discussion boards, email and social networks, as these environments present new challenges, requiring variations of the skills appropriate in face to face environments. For example, students can add emoticons, thumbs up symbols and other symbols or send online greetings cards to express such collaborative skills as praising and thanking others.

Group Autonomy

Too often, students tend to depend too much on their teachers, overlooking their own and their peers' abilities. The CL principle of group autonomy encourages students to look first to their group mates when they need help or want feedback. For students to become lifelong learners, they need to take on some of the roles formerly seen to be the exclusive domain of teachers, such as the roles of providing assistance and feedback. Performing these roles provides students with learning opportunities and promotes peer interactions. Also, when students are helping each other within their capability to do so, teachers are able to provide help that lies beyond students' current abilities.

The CL literature offers many ideas for promoting group autonomy. For instance, groups can utilize the slogan, 'Team Then Teacher', when students ask their group mates before asking their teachers. When student groups are acting autonomously, teachers are still there to help, but not as first options. Group autonomy can be especially important in IT environments, even more so than in classrooms, as teachers are less likely to be immediately available to provide assistance. In online environments, when students face difficulties, instead of giving up or waiting several hours or more for assistance from teachers, students can turn to their peers.

Maximum Peer Interactions

The CL principle, Maximum Peer Interactions, encourages more student-student interactions and fewer teacher-student interactions, as students may be more active during student-student interactions. The word 'maximum' in Maximum Peer Interactions refers to maximising two aspects of peer interactions. First, the *quantity* of peer interactions increases when group activities are used, particularly when the number of members in each group is kept small and when groups sometimes report to other groups instead of or in addition to the entire class. Second, the *quality* of peer interactions increases when students use higher order thinking skills (Chiang, et al., 2013). Indeed, the 'magic' of CL lies in the quality of peer interactions (Webb, et al., 2009). These thinking interactions promote more learning, greater depth of processing and greater engagement (Nussbaum, 2008; Järvelä, Hurme, & Järvenoja, 2011). Thus, the greater the quantity of these quality peer interactions, the better.

IT provides many new and engaging tools for peer interactions such as Google Docs and online discussion boards. Unfortunately, too often, the use of IT in education merely results in teacher fronted instruction being delivered electronically, for instance, via videos of lectures, rather than face to face. This situation can easily be changed. When students listen to online lectures or read texts provided online, time and tasks for interactions should be included, and these tasks should include thinking tasks. Care, however, must be taken so that these thinking tasks are within students' current ability levels, i.e., within their ZPDs (Vygotsky, 1978). Here, teachers have a vital role in providing the support students need so that these interactive thinking tasks are doable. This support might, for example, include annotated model responses being posted online. Furthermore, when groups are heterogeneous as to past achievement, lower achieving students can ask their group mates for help, rather than going astray or giving up when faced with tasks that are too challenging.

Equal Opportunity to Participate

Sometimes one or more group members attempt to dominate the group, denying others the chance to interact with the task and with group mates. Equal Opportunity to Participate is the CL principle that specifically addresses such situations. When some students are excluded from the group interactions, those students may learn less and enjoy less. At the same time, the rest of the group members lose the benefits of interacting with the excluded person(s). For instance, if excluded group members are less proficient at the task the group is undertaking, the other group members miss out on peer tutoring opportunities they would have if everyone is included.

CL techniques, along with various software, offer tools for providing all group members equal opportunity to participate. For example, in contrast to face to face discussions in which some group members may have difficulty being heard, asynchronous online communication allows students to share their ideas without having to compete for a spot in the conversation. Other ideas promoting Equal Opportunity to Participate include colour coding to show each person's contribution to a graphic, table or text, and group members being chosen at random to share their group's ideas. Additionally, some software allows students and teachers to monitor the distribution and quality of turns in their groups.

Individual Accountability

While Equal Opportunity to Participate is the CL principle which seeks to offer all group members chances to play important roles in their groups, the principle of Individual Accountability puts pressure on members to do their fair share in the groups. Thus, Individual Accountability can be seen as the flip side of Equal Opportunity to Participate. Students need to use the opportunities provided to contribute what they can to their groups. Unless students feel individually accountable, if instead some students act as freeloaders, group morale may suffer, and students may lose faith in the use

of groups for learning due to the presence of these freeloaders. Furthermore, freeloading makes assessment more difficult, as teachers may not be able to judge the members' contributions to their groups (Johnson & Johnson, 2003).

Fortunately, the CL literature and IT tools offer ideas for promoting individual accountability. For example, groups can roster who needs to do what and when, and monitor if it is done. Additionally, the same software that promotes Equal Opportunity to Participate by monitoring each group member's participation can also let group mates and teachers know who is not pulling their weight in the group. Two ways to address the difficulties that freeloaders pose for assessment are to involve peers in assessment, as peers are better placed to monitor each member's input, and for students to study together but be assessed alone, as when after students work together to solve a set of online mathematics problems, they do another set of similar problems on their own.

Positive Interdependence

Positive Interdependence is the CL principle which most prominently encourages sharing among students. When students feel positively interdependent with their group mates, the group feels that their outcomes are positively correlated. Whereas Individual Accountability puts pressure on group members to contribute to the group, Positive Interdependence provides support; if students are having difficulties, their group mates are there to help them. Positive Interdependence can also promote motivation to learn, because students are learning not just for themselves but also for the benefit of their groups.

Many ideas have been developed to encourage students to feel positively interdependent with their group mates. For instance, students are more likely to feel that all group members' outcomes are positively correlated if they have group goals. These goals are not about the group, but about the strengthening of each individual member. An example in a writing class of such a group goal would be for all group members to do better on the second writing task of the term (except in the case of group members with perfect scores on the term's initial writing task). To help group mates improve, students could use the Track Changes and Comments functions in MS Word to offer each other feedback on their drafts. If everyone in the group succeeds in improving on the second writing task, a celebration or other rewards could recognise this accomplishment. Yet another means of promoting Positive Interdependence is for each student to have different resources. For example, each group member could go online to research a different subtopic of the larger group topic and then share what they learned with their group mates (Aronson, 2014).

Cooperation as a Value

An eighth CL principle, Cooperation as a Value, builds on Positive Interdependence and seeks to spread the feeling of "One for all; all for one". While students need to know how to compete and how to work alone, the hope embodied in the principle of Cooperation as a Value is that students will come to view cooperation as their preferred option. A look at the news headlines on almost any day finds many areas in which the world needs more of this cooperation, yet many factors in society foster competition and individualism.

Many means exist for promoting Cooperation as a Value. For example, in service learning projects (Kinsley & McPherson, 1995), students work together to provide a service while at the same time engaging in learning linked to their curriculum, e.g., IT students might develop websites and other online tools for non-profit organisations. Another means of promoting Cooperation as a Value would be for students to appreciate the many benefits of cooperation, e.g., they can learn about IT inventions, IT companies and IT networks that required large scale cooperation to bring to fruition and to grow. Students can also reflect on how their own cooperation in small groups (2-4 people) lays a foundation for their later participation in larger scale cooperation.

Implementing the Principles in IT Environments

To sum up this section on CL principles, teachers have varied interpretations of CL, and some teachers tend to interpret CL as just group work, i.e., a furniture arrangement of desks pushed together or an electronic arrangement of linked devices. The implementation of group work without awareness of CL principles is less likely to lead to meaningful collaboration in the classroom or online. For example, Individual Accountability may be lacking, and, thus, a group's work may rest on one or two students instead of involving every student in the group, or Maximum Peer Interactions may be lacking as to the quality of peer interactions, with students merely exchanging information rather than discussing ideas (Gillies, 2007). Furthermore, teachers may design collaboration to focus on the outcome of groups' products rather than the processes or quality student interactions that would lead to more learning in the groups. Teachers' reluctance to implement CL may be due to their negative experiences with group activities implemented without guidance from CL principles, due, in turn, to teachers' lack of knowledge of the principles and how to implement them.

Teachers' reluctance to use CL may also spring from other reasons. Some teachers are concerned over student behaviour in groups, resulting in the loss of control and off-task behaviour during CL activities (Kohn, 1992). This concern may be exacerbated in online environments where teacher monitoring may be more difficult than in typical classroom settings. Additionally, teachers may hold the belief that CL is time consuming. Again, online environments may heighten this fear, as students may need time to master online collaboration tools, thus, taking yet more time away from content learning. To make matters worse, internet connections, as well as hardware and software, may be unreliable. A further objection to the use of groups in IT and other learning environments flows from teachers' worries about assessment of students in groups (Gress et al., 2010), for example, how can teachers monitor each student's contribution to their group?

The above problems and concerns faced by teachers in the use of CL suggest the need for teachers to experience CL, to develop their own collaborative skills, to understand the value of collaboration, and to design and enact collaborative lessons in the classroom (Cohen, Brody, & Sapon-Shevin, 2004). Lesson Study (Lawrence & Chong, 2010) and other forms of peer learning among teachers offer ways for teachers to experience CL principles in action and develop their skill in implementing these principles. Though teachers may attend workshops on designing lessons for CL, they also need the on-going support of their peers to sustain and improve their practices in the classroom. Thus, for teachers to sustain the implementation of CL in the school, there is a need to develop a culture of collaboration in the school among teachers. The principle of Cooperation as a Value can contribute to this by helping schools develop this culture of collaboration, not just for learning but in all school activities including extra-curricular and co-curricular activities.

In addition to understanding CL principles, teachers need time to develop familiarity with collaborative Web 2.0 and 1:1 mobile technologies, such as tablets for recording and sharing text, images or videos has led teachers to explore the possibility of using these tools for the classroom (Hertz, 2011). Exploring various IT tools is time consuming for teachers. However, if teachers do not have sufficient opportunities or resources to try these tools for themselves, teachers may not come to recognise the features of the various software and how these features can be integrated into CL activities so as to enhance peer interactions.

Examples of Some of the CL Principles at Work with Technology

Google Docs

The availability of Web 2.0 and cloud-based tools, such as Google Docs, Popplet and Prezi, allows multiple users to create, write, edit, annotate and comment on shared documents, thereby providing a platform for individuals to collaborate (Kamel Boulos & Wheeler, 2007). This section of the paper illustrates the application of the eight CL principles described earlier. Square brackets are used to

make explicit the presence of each principle. In this lesson students use Google Docs as an online tool to collectively write a research report.

Students begin by forming groups that are heterogeneous on such variables as language proficiency, content knowledge, ethnicity and knowledge of ICT tools (heterogeneous grouping). The class might decide to work on a collaborative skill, such as praising others (teaching collaborative skills). Students' use of praising can be facilitated by discussion of why the skill is important, explanation of the words and non-verbal language that go with praising, practice in praising, monitoring of students' use of praising and continued focus on the skill.

The groups discuss among themselves what they will research and who will be responsible for which parts of their report (group autonomy). Group members divide up the work, with each person responsible for a designated part (equal opportunity to participate) and deadlines for when their work is due (individual accountability). After they finish their individual research, students contribute their draft to the shared Google Doc. Online and in-person, group mates give each other feedback and debate what should go in the final report (maximum peer interactions). This give and take occurs in a cooperative atmosphere of mutual support (positive interdependence). Those group members who are relatively better in certain skills will help their group mates.

Through the process of collective writing, students will recognise the benefits of cooperation (cooperation as a value), being aware that the quality and success of their report is dependent on the contributions and feedback of individual students. Technology allows the collaboration to happen in real time where students' feedback and comments can be instantly viewed. Moreover, with the cloud computing, collaboration between students takes place seamlessly across different devices, such as tablets, smartphones and computers, and students can collaborate wherever they are and just-in-time.

Collaborative Mind Mapping

Here is another example of the application of CL principles to a lesson using ICT tools. Popplet is a Web 2.0 tool which provides a collaborative platform for students to share and jointly create concept maps. The students can engage in collaboration activities through a common collaboration space by exchanging their collected artefacts, e.g., pictures, assembling mind maps and free-hand drawing on top of the space. This collaboration allows for both structured and emergent group consolidation and can serve as a constantly available repository of group created artefacts ready to be examined anytime anywhere in a variety of spontaneous or teacher-initiated collaborative activities. It will be used to stimulate students to give positive, constructive feedback to their peers, present their ideas or negotiate to resolve conflicting perspectives.

CL principles could facilitate this lesson in a wide variety of ways. For instance, the principle of cooperation as a value could encourage students to consider how their concept maps might be used to educate others on important topics, such as the negative impact of animal based foods, such as meat and dairy, on the environment. By encouraging people to move towards more plant based diet, the concept map would provide a community service. Another CL principle that could be usefully applied in this lesson is maximum peer interactions, as discussions in small groups promote a high quantity of peer interactions, and emphasising the collaborative skill of providing elaborated responses, e.g., reasons and examples, raises the quality of peer interactions.

The CL principles of equal opportunity to participate and individual accountability could be promoted in several ways. Firstly, each student could use a different colour for their input in their group's concept map, and a legend in the map could show which group member had which colour. The goal would be to achieve a fairly even distribution of colours in the map. Secondly, groups could display their maps for other groups to see and comment on. Each group member would be responsible for responding to some of the comments left by other groups and for making comments on the other maps. This commenting and responding could be done online or on hard copies. Thirdly, each student could work alone to write a reflection piece on their experience in creating the map

in their group, with reflections on what content was learned, as well as what was learned about working in groups.

Conclusion

The goal of this paper has been to offer principles and other ideas to heighten the value of student interactions conducted via electronic devices. The foundation of the ideas in this paper lies in a learning technology which some call cooperative learning and others call collaborative learning, both of which can be abbreviated as CL. David and Roger Johnson of the Cooperative Learning Institute (http://www.co-operation.org) are two of the pioneers in CL who have done extensive work in theory, research and dissemination. Interestingly, in a recent opinion piece (Johnson & Johnson, 2014), they argued that online peer interaction is less effective than face-to-face peer interaction. Reasons for the relative ineffectiveness include: (1) distractions from other affordances, (2) hardware, software and connectivity that may not be available, affordable and reliable, (3) students' lack of skill in the use of education affordances and (4) students' unfamiliarity with academic interaction without the presence of teachers (Kreijns, Kirschner, & Jochems, 2003).

Nonetheless, Johnson and Johnson (2014) expressed optimism about the potential of online interaction. They stated that technology could "revolutionise" the way CL is done. Indeed, technology offers new and more sophisticated ways for students to interact. Also, whereas previously what was said in a group vanished as soon as the words were spoken, technology now provides tools for teachers to more effectively and comprehensively monitor student-student interaction. An example of how new technology enhances interaction can be found in flipped classroom settings (Phillips, & Trainor, 2014), where technology enables students to not only prepare for peer interaction in the classroom by reading and viewing online before class but also to begin interacting with peers before class, to interact during class and to continue interacting after class.

Ministries of Education around the world realise that in this Information Age, computer literacy constitutes an essential 21st century competency. However, as the human population of the Earth moves towards nine billion people, other competencies must accompany computer literacy. As people deal with increasingly complex, interdependent issues, socially oriented competencies are needed for successful global interactions. These social competencies must go hand-in-hand with computer literacy. CL facilitates students' development of these competencies.

For countries to develop their students' competency in online interaction, perhaps the key idea to take away from this paper is that pedagogy needs to drive technology, not vice-versa (Baker, 2012). The initial steps of students forming groups and having access to technology tools are only very initial steps. Much more needs to be done to increase the chances that the group members will feel positively interdependent and therefore strive to foster each other's learning. Thus, CL pedagogy must be included in pre-service and in-service teacher development programmes. In conclusion, the theory and research cited earlier in this paper speak of the great potential of student-student interaction, and the eight principles described in this paper help students take many more steps towards successful groups not just among themselves as students but also in the wider world generally.

Notes

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Global Issues of Higher Education with Special Reference to Latin America and the Caribbean[1]

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Abstract: *Higher education in Latin America has deep roots back to the Spanish colonisation in the Hispanic countries. In Brazil, a former Portuguese colony, this sector did not emerge until the nineteenth century and in the Anglophone Caribbean, not until the twentieth. Now in the twenty-first century throughout the region it is subject to the global reach of the neo-liberal era with marketisation, quality assurance and international rankings playing very strong roles. The number of private higher education institutions has increased dramatically with problems attached for quality, which is extremely variable. New types of institution have emerged, for example the community colleges in the Anglophone Caribbean offering the first few years of undergraduate study even in small island nations. At the top of the scale there are still quality institutions, but they are locked into the global convention and competition of the international rankings and league tables. So the overall picture is of a higher education sector of unusual variety and variability.*

Keywords: *universities, globalisation, accreditation, international rankings, Latin America, Caribbean*

Introduction

Universities worldwide are facing the influences of globalisation, which can be both positive and negative. Either way, greater challenges arise. In this new context, university traditional values (autonomy, academic freedom, objective research, teaching and assessment) must still be valid, but they should be mediated through the lens of global education. This will be discussed in general, and then a focus on the regions of Latin America and the Caribbean will follow.

Globalisation is an irreversible and dynamic phenomenon affecting education. It makes no sense to ignore it. Instead, what we should be concerned with is the type of globalisation that should prevail. In a university context, should we merely accept the most negative and more visible aspects of globalisation, or should we seriously devote ourselves to the construction of a global society that responds to more justice and solidarity, and to human and social development?

The objective of analysing these comprehensive issues here is to contribute to the promotion of necessary transformations among higher education institutions (HEI). This sector is experiencing a set of transformations in its institutions namely:

a) Massification;
b) Horizontal and Vertical Differentiation;
c) Quality Assurance and Accreditation;
d) Increasing Demand for Specific Knowledge;
e) Diversification and Rationalisation of Funding;
f) The Acceptance of Entrepreneurial Cultures;
g) Gravitation from the State to the Market (Brunner, 2005, pp 3-4).

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These, together with 'brain drain', mean that universities in all countries have to respond simultaneously at a number of levels: local, national, regional and global. In the documents of the The World Conference on Higher Education summoned by UNESCO (2009), a number of valuable suggestions were made relating to the most urgent challenges. These included: a) the regular upgrading of the teaching staff and content; b) the further extension of electronic networks for learning; c) translation and internationalisation and of the main scientific contributions; d) management modernisation; e) the complementation of public and private education; f) also of informal and distance education; and additionally, as discussed by Alexiadou and Brock (1996), higher education (HE) should be considered as a public good and not just a commodity.

Higher Education Today: Global Trends and Challenges

Enrolment in higher education institutions has increased massively from 13 million in 1960 to well over 20 million today (UNESCO, 2011). This has been accompanied by an increase of academic international mobility which has resulted to the rise of privatisation of higher education in many parts of the world. Only in Western Europe is higher education financed mainly by the State, and this is changing in some countries by stealth, as exemplified by the new fees regime for undergraduate students in England. Even in the poorest region, the Sub-Saharan Africa, private 'universities' are increasingly common and often, as elsewhere, of very questionable quality (Pillay, 2010).

Inequity in access is also massive, based on a range of factors, including race, gender, ethnicity, religious, and social class. Together they continue to deprive many with sufficient merit and potential to undertake university studies. In Brazil in 2008, for example, of five quintiles, 74% of the students in universities belong to the highest social quintile and only 4% to the lowest quintile (CEPAL, 2008), whereas the real human potential of the country is much more widely spread. Management Quality and Policy is another area of concern. Despite some positivity it has been overshadowed by over-bureaucratisation as its characteristics. In some cases, questionable management procedures have been used as a pretext to accelerate processes of privatisation, or reduction of state funding to higher education, for purposes of personal financial gain.

In addition, curriculum development in much of higher education, for undergraduate as well as post-graduate courses, has not progressed sufficiently to reflect the rapid changes and challenges at both national and international level. Consequently, there is a growing divergence in standards between universities, and other HEIs across almost every country. This in turn works against the equivalence of qualifications that is one of the main objectives of UNESCO higher educational policy. Instead, what is happening is an increasing diversity (and a widening of the gap) in quality between the best, the average, and the worst.

Another of the negative consequence of economic globalisation and privatising trends in HE is the desire of the World Trade Organization to include tertiary education as a service within the regulations known as the General Agreement on Trade in Service (GATS). Though this offer may still be in the discussion stage, countries are divided on it (Sauve, 2002). Some of those that obtain important earnings from higher education, including international student enrolment, have strongly expressed their support for this initiative. It is of course a feature of the global dominance of neo-liberal economics, but is related to a more constraining factor, that of accreditation. This can also be a questionable process. Many of the agencies involved do not know, or understand the values and needs of autochthonous development, and the whole procedure becomes invalid.

The rankings of universities worldwide has also become increasingly fashionable. In the mid-1980s, the Asian Wall Street Journal had included only 4 non-US Universities (Cambridge, Oxford, Sorbonne, and Tokyo) in a list of supposedly top 10 universities worldwide (Altbach, 2004). Such rankings are highly partial, and its reliability questionable. Only those of the Times Higher Education Supplement (THES), and the Shanghai Jiao Tong University's (SJTU) rankings are regarded as valid nowadays, but even the latter is of limited use because it deals strictly with research, and based on very limited criteria. The rankings are constructed on the basis of two major indices — the number

of Nobel Prizes, and teachers of the university with works in certain American based citation indices. Both THES and SJTU rankings are based on the use of English language, which favours the Anglo-Saxon world, especially of USA, UK, and Australia. They also favour the sciences and technologies to the detriment of the social sciences and humanities — where research grant is hard to obtain. Yet, to apply the procedure and values of only the principal academic powers operating in English will obviously be meaningless in a global context. This, of course, also relates to the aforementioned issue of global equivalence and recognition of qualifications. Especially in the less developed countries, instead of chasing indicators often difficult to reach in their specific conditions, more attention should be given to the ideal of universities that promote forms of sustainable development that are relevant and achievable in their own context (Altbach, 2006; Ordorika, 2008).

Evaluation and accreditation procedures offer more significant information about universities and other HEIs. They pose a challenge against assaults dealt to the conception of HEIs as being a public good. Such procedures of evaluation and accreditation can, through the careful and professional efforts of international organisations such as UNESCO, the Global Universities Network for Innovation (GUNI) and the United Nations University, potentially unlock the role of higher education in enhancing the achievement of sustainable survival in the twenty-first century. Additionally, they serve as a challenge against academic corruption through its potential of being subjected to political and economic pressures.

Unfortunately, universities and HEIs are shaped by Nation-State policies, as much as by the global trends based on the capitalist system. These politico-economic influences on them are much more powerful than the changes and transformations that they can produce within themselves, and the society wherein they are embedded. Universities originated as international phenomena as their title implies (Brock, 2007). This leads us to ask ourselves: Is a fundamental transformation of the university possible without previous transformation from the predominance of the scale of the nation-state to the international or global scales? The internationalisation of universities is a key component of this debate (Brock, 2012).

Main Trends of Higher Education in Latin America and the Caribbean

Latin America

America, that is to say the 'New World' comprises the land areas of the continents of North America and South America, and the isthmus of Central America. In addition there are the islands of the Gulf of Mexico, the Caribbean Sea and nearby areas of the Atlantic Ocean. That is to do with physical geography, but the 'New World' exhibits three main components of cultural geography: 'Latin America' (predominantly Portuguese and Spanish speaking); Anglo-America (predominantly English speaking) and Franco-America (predominantly French Speaking). There are also many indigenous (Amerindian) languages and some small areas of Dutch speaking in Suriname and the Netherlands Antilles. Latin America comprises all of South and Central America except Belize, Guyana and Suriname, plus the Caribbean nations of Cuba and The Dominican Republic).

Before the 1980s, public tertiary education with institutional and academic autonomy had prevailed over private higher education in the region. However, at the end of the 1980s and early 1990s, globalisation occurred; meaning that the spread of neoliberal economic strategies began. These market-oriented strategies contributed to the increase of privatisation among the tertiary sector of education, and the consequent deterioration of public universities. This was due, in part, to the lack of appropriate public funding. In spite of this, during the 1990s, overall higher education in the region blossomed (García-Guadilla, 2006).

Higher education reforms in Latin America and the Caribbean in the last two decades have been oriented towards the satisfaction of an increasing demand fuelled by World Bank policies, and to a much lesser degree, the policies recommended by UNESCO in the aforementioned World Council on Higher Education (WCHE) in Paris in 1988. These transformations are in reality, mainly

counter-reforms and not the type of reform needed in the various national public university sectors. According to Mollis (2003), the main traits of these transformations are as illustrated in Box 1.

Box 1 Transformations of Tertiary Education in Latin America

- Diversification of HEIs (university colleges, university institutes, short cycles with certificates and intermediate titles in the university level, new tertiary private institutions, among others).
- Diversified sources of funds (registration, sales of services) introduced as alternatives to the State financing.
- Strategic alliances among international agencies and governmental decision makers were formed.
- New alliances between universities, corporations, and the public sector were also established through:
  - Increasing presence of private investment in the offering of higher education through, new providers not controlled by State policies.
  - Evaluation, accountability, accreditation and certification of programmes.
  - Institutional and normative reforms of higher education laws.
  - Policies of faculty differentiation through policies of incentives, according to indicators of productivity.
  - Academic Reforms: shortening of careers, intermediate degrees, flexible curricula toward credit modality, and import of educational models based on the "acquisition of professional competitions".
  - Predominance of distance learning (virtual university), remote tutorship, certification of knowledge and skills, and recycling of competencies.

Let us examine these prevailing trends (as well as others) in higher education in Latin America and the Caribbean between 1990 and 2008 in greater detail. The HEIs increased from 5,438 in 1995 (53.7% private) to 7,514 in 2002 (69.2% private) (Garcia Guadilla, 2006, p.261), while enrolment in HEIs had increased from 267,000 in 1950 to 19, 658,000 in 2009 (UNESCO, 2011). In 2003, the average amount of matriculation in tertiary education in private institutions was 50%, with the percentage being greater in some countries such as: Brazil and Chile at 70%, Colombia at 60%, and Central America at about 60%. For Mexico, Argentina, Uruguay, and Cuba, it is 40%, 20%, 10%, and no change respectively (UNESCO IESALC, 2006; Fernandez Lamarra, 2008).

The mega-higher education systems (HES) in Brazil has over five million students (5,273,000), while Mexico and Argentina have over two million. The medium higher education systems in Chile, Colombia, Peru, and Venezuela have between 500,000 and 1,200,000 students. There are also small higher education systems in Bolivia, Cuba, Ecuador, Guatemala, and Dominican Republic with student figures ranging between 150,000 and 500,000. Lastly, very small higher education systems in the case of Central America and the Anglophone and Francophone Caribbean countries where the amount of students ranges between 150,000 and 500,000 (UNESCO Institute of Statistics, 2009).

The gross enrolment rate (GER) varies from a range between 79% and 62% (Argentina and Cuba) to 20% (Honduras), while the average GER has risen from 17% at the beginning of the 1990s to 43% by 2012. However, in Latin America and the Caribbean, expenditures per student (2380 US Dollars) are comparatively lower than in other developed countries, and private expenditure finances 50% of the total enrolment (UNESCO Institute of Statistics, 2014).

The most rapid expansion is in pre-graduation courses of public universities where tuition is very low or completely free in most countries. However exceptions may be found in some countries such as Chile. But as a rule, in the post-graduation courses (Masters, PhDs, and certain specialisations) tuition must be paid by the students even for public universities. Most (i.e. 60%) of the total regional enrolment in higher education is concentrated in three countries: Brazil, Mexico and Argentina; the

three most populous. Post-graduate taught and research courses offered by public higher education in Latin America and the Caribbean have traditionally had great popularity. Mexico and Brazil have an enrolment of over 100,000 students in post-graduate courses (Gazzola, 2008). However, the proportion of national populations with low incomes and limited social capital tends to be excluded from tertiary education. They studied in schools of low quality, thereby preventing them from gaining sufficiently high grades in the admission examinations. It is these sectors of the populations that form the market of the private universities of minor quality (Castro, 2004). For year 2008, in Brazil, 74% of the pupils who are registered in the universities belong to the highest quintile, and only 4% to the lowest. The percentage distribution of pupils from the highest quintile versus the lowest in Mexico, Chile, and Ecuador was 58 to 6, 65 to 8, and 42 to 6 respectively (CEPAL, 2008)

The model of financing prevalent in the region is a historical-negotiated one. However, new formulas of financing have been introduced (especially in Mexico, Chile, and Argentina) by linking results to the allocation of resources. The governments of some countries — such as Uruguay — have introduced solidarity funds to give more opportunities to the most economically disadvantaged students with academic merit and potential.

Another trend is that the region has attracted foreign universities and other tertiary institutions, with both profit and non-profit orientation. We are witnessing a rapid increase in foreign institutions of higher education, hailing from the USA and Europe, both of which are offering a range of diverse modalities: distance education, units decentralised from headquarters, alliances, and agreements (The Economist, 2005). In many cases they do not have any baseline quality control procedure, or may even violate national regulations even though these are very modest concerning transnational higher education.

At the same time, the internationalisation of higher education has also presented itself in this region through intercontinental programmes such as ALFA (i.e. a programme of co-operation between higher education institutions of the European Union and Latin America and COLOMBUS (i.e. the Collaboration in University Management: a bridge between Universities and Scholars in Latin America and Europe); sub-regional programmes such as the Andres Bello Agreement and the Montevideo Group Association of Universities (AUGM) for the sub regional bloc MERCOSUR; Ibero-American networks and regional agencies. There are various programmes of different national and institutional networks, from the region and worldwide, giving various kinds of funds and scholarships to Latin America and Caribbean (LAC) professors and students. (Didou, 2005, p.133; CINDA, 2007). However, in 2004 LAC received only around 365,000 foreign students — 1.5 percent of the 2.45 million registered worldwide — which indicates that the universities of the region do not constitute attractive destinations for international student flow in general. Nowadays, none of the Latin-American countries appears in the list of twenty-three destinations that attract major number of foreign students (UNESCO Institute for Statistics, 2007).

Of the 14 countries within the region, a total of 31 institutions grant educational credits totalling over US$ 400 million in 2002 (García-Guadilla, 2006) . Among these institutions, The Federal Caixa Económica of Brazil covers half of this amount. The Colombian Institute for Education Credit and Technical Studies Abroad (ICETEX) and the Fundación Gran Mariscal de Ayacucho (Fundayacucho) of Venezuela have similar programmes. In addition to the US$ 400 million mentioned above, Cuba grants thousands of scholarships to students of the region and finances a Latin-American School of Medicine.

Privatisation of higher education in Latin America and the Caribbean has led to diversification within the tertiary sector, and in many cases to the decline of quality. In order to solve this problem, since the 1990s almost all the countries of the region have created organisations of accreditation. That is, the National Commission for the Evaluation of HE and the Council for the Accreditation of HE (Mexico); the HE Council (Chile); the National Council of Accreditation (Colombia); the National Commission of Evaluation and University Accreditation (Argentina); and the Central American System of Evaluation and Accreditation of HE (Central America). While in Brazil, there are the Coordination

for the Improvement of Higher Education Personnel (CAPES) and the Experimental Mechanism of Accreditation of Careers for the Recognition of Titles of University Degree (MEXA/MERCOSUR) (Sobrinho, 2006). In some cases further legal sanctions have been employed to bring in, for example, a general education law for all sectors.

Of special interest to the higher education sector in this region is the Project 6x4 that Columbus has been preparing in the National Centre for Evaluation for Quality Education (CENEVAL) in Mexico. This is a pilot project with the aim of building a Latin-American common space of higher education, bearing the Bologna's European experience in mind (Sobrinho, 2006, p. 219). Of course there has long been a model of higher education in the smaller counties of the Central American region, especially in Costa Rica where the first university was founded in 1842 (Aguilar, 1990), and the regional organisation CSUCA, founded in 1948. CSUCA is a non-profit public Central American regional integrated organisation with 19 public university members from the (8) countries: Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. Together they form the Central America Integrated System (SICA) as a strong counterpoint to the irregular and unregulated plethora of private universities (SICA, 2014).

The Commonwealth Caribbean

The Commonwealth Caribbean comprises the predominantly Anglophone islands bounded by the Gulf of Mexico and the Caribbean Sea, plus the two land based nations of Belize and Guyana and nearby Atlantic island nations and territories such as Barbados, the Bahamas and the Turks and Caicos islands (Thomas, 2014). Formerly part of the British Empire, almost all are now independent nations, but some are still in effect still colonies, officially known as British Overseas Territories. These include the aforementioned Turks and Caicos, plus the Caiman Islands, British Virgin Islands, Montserrat and Anguilla.

In the Commonwealth Caribbean, the University of the West Indies (UWI) was established as far back as 1948. It is the principal institution of HE in the Anglophone Caribbean. It has campuses in three countries: Jamaica, where the major headquarters is located, Trinidad and Tobago, and Barbados, plus numerous outposts in smaller islands. Guyana decided to create its own university. UWI receives nearly 20,000 students from 17 countries in the zone. If the distance HE applicants are also considered, then the total matriculation amounts to over 23,000 students. The rate of enrolment (GER) of the relevant age group differs from country to country: 19% in Jamaica, and 12% in Trinidad and Tobago (UNESCO Institute for Statistics, 2007). According to Trow's (2005) definition, in the Anglophone Caribbean HE are regarded differently, in Jamaica it is considered "mass" HE, whereas in others, such as Trinidad and Tobago, it is considered "elitist". But it is not considered universal in any of the countries with the possible exception of the British Virgin Islands, whose inhabitants have the additional option of attending the nearby University of the Virgin Islands in St John, the largest of the US Virgin Islands.

Two significant trends have been evident in the Commonwealth Caribbean in recent decades. One is the same as in Latin America in the form of the creation of private universities. The most notable, and now well established, is St George's University in Grenada, an initiative from the USA that was implicated in the American bombing of Grenada in 1983 (Brock, 1985; 2012). The other is the upgrading of previously separate tertiary institutions, such as teachers colleges and technical colleges, to form unified institutions often providing the first years of undergraduate study recognised by the University of West Indies. A good example is Sir Arthur Lewis Community College in Saint Lucia (Brock, 2008)

Conclusion

Despite the increase of tertiary enrolment in Latin America, the average budget in the countries of the region allocated for higher education is lower than 1.5% of the Gross Domestic Product (GDP)

(García-Guadilla, 2006). This is clearly insufficient to satisfy the needs of a region going through rapid economic development with a need for high quality labour. It is also insufficient to provide for the relevant social research and development needs of universities. Indeed, the average investment in science and technology of the countries within the region is 0.72% of the GDP (Garcia-Guadilla, 2006).

The World Council of Higher Education (WCHE) in Paris in 1998, and its follow-up meetings, offered a theoretical framework for the transformation of higher education. This had some impact in Latin America and the Caribbean by building on what had been expressed in the Regional Conference of LAC (1996) and in its Action Plan. This implied a shared general vision about how to carry out the transformation processes of the HEI — both public and private — through institutional evaluation, with the goal of improving the management and financial systems as well as equity in access as a key priority. By extension, the university should be a key agent in transforming society, building viable alternatives in the midst of complexity and uncertainty. International cooperation and the building of networks has been one of the greatest inputs of the WCHE in the region. With it came innovation and a degree of internationalisation of higher education. The UNESCO International Institute for Higher Education in Latin America and the Caribbean (UNESCO IESALC) has played a leading role in this sense, as an alternative and a counter balance of the restrictive structural adjustment agenda of the World Bank in the 1990s. The World Bank had, at that time, considered the only useful investment in education to be in basic education, and thereby inadvertently stimulated the problematic privatisation of higher education as solution to increasing access. As a result, despite its rapid improvement in comparison with developed countries, the main challenges facing higher education today in Latin America and the Caribbean are: a) the rapid increase of privatisation; b) insufficient public funding; c) lack of access for the poorest; and (d) the low general enrolment rate (Didriksson, 2008; Sanyal and López Segrera, 2008).

Universities and higher education systems in developed countries are in an advantageous position, given the greater availability of financial resources, their state-of the-art research programmes, and their privileged access to information networks. Nevertheless, HEIs in LAC can enrich themselves through various forms of cooperation without subjected in any way. There has been a regression from the original coexistence-model centred on the learning subject and the student, to an authoritarian model centred on the teaching subject and the administrative subject. Concurrently, strong trends such as the process triggered by the Bologna Declaration (1999), which aim to rectify practices that oppose the original ideal of coexistence, are also rising. In LAC, there is a growing debate about the possibilities of an Ibero-American area of HE, based on Bologna.

In order to lead the way of change and innovation in LAC, to reinvent the university, and achieve its permanent self-reform, it is necessary to have the political will to change; a solid institutional project; widely available information on the university in the different regions and countries; and knowledge about the relevant experiences of university transformation elsewhere. Research and graduate courses must serve, in the first place, the demands of society and not those of corporate or market interests exclusively. These things lie at the heart of the Bologna Process that is itself proving to be a long and contested phenomenon.

The virtualisation of education is increasing but is not cheap. Technology offers great possibilities for inter-university cooperation in LAC, but these have been used in the academic environment, to a large extent, by the new providers who offer transnational higher education with lucrative profit-oriented aims. By contrast, in the Commonwealth Caribbean, the virtual dimension is much more affordable and accessible through the twin agencies of the Commonwealth of Learning (COL) and the Virtual University of Small States which is related to the COL.

Universities are traditional hubs for teaching, research, and serving the local community. However, the weakness of universities worldwide is in their lack of service to society in its local and regional dimensions. UNESCO has been working in this region with the objective of transforming the university and to reinvent HEIs, adapting them to meet the demands of a modern knowledge society. This is an issue not limited to the Latin American and Caribbean regions, but one that needs serious attention.

The first recommendation for meaningful reform is to begin treating higher education as a means for public service, meant for public good, regardless of the institution's source of funding. This implies that public as well as private higher education institutions in LAC should assume a public commitment with society. Access should be "equal for all according to their respective merits" as stated in article 26.1 of the Universal Declaration of Human Rights (UN, 1948). This was, and is, a global aspiration for which some examples from elsewhere could be informative. Is the European space of higher education Bologna going in this direction? If so, does it have lessons, or even encouragement for Latin America and the Caribbean? Already networks of HE in that region, such as the Central American University Superior Council (CSUCA), is playing an important role.

Despite the aforementioned spectre of GATS, the internationalisation of higher education remains comprehensive. New concepts such as "cross-border higher education" and "trade in education" are fast developing, but as of now, have a prime commercial purpose aimed at obtaining maximum profits from higher education. In LAC, the process of internationalisation of higher education needs to be preserved through proper regulation and accreditation to avoid its displacement or substitution by profiteering internationalisation. This means, establishing regulations by mutual agreement across all countries of the region. Perhaps an autonomous Latin American and Caribbean Regional University, a kind of 'super CSUCA' could fulfil the social function which society needs, not only in terms of equality in access, but also in terms of the state-of-the-art delivery with regards to knowledge, information, and proposals for future human well-being and survival in the problematic 21st century. This would not mean evading the legislation applicable to HEI in LAC or lacking accountability in the eyes of society about the use of public resources at the HEI's disposal, given to them in order to achieve their academic task. It would, however, include helping to improve the primary and secondary education levels in the region. This must be part of the aspiration of any region, to improve its tertiary education.

Nationalism is not the answer but nations are still the prime political parameter. Can we, and especially the universities of Latin America and the Caribbean, manage to educate our public officials and the society in general, for the common good and sustainable survival?

Notes

[1] Part of this paper is published in López Segrera, F. (2010) El impacto de la crisis económica global en la Educación Superior Mundial y Regional. *Educación Superior y Sociedad*. *15*(1). Caracas: IESALC UNESCO.

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Book Review

Measuring Quality of Undergraduate Education in Japan By Reiko Yamada (Ed.) (2014), 214pp. ISBN: 978-981-4585-80-4 (print), Singapore: Springer.

Scholars based in higher education institutions in the West will be familiar with the need to satisfy various bodies, internal as well as external, about the quality of the undergraduate teaching that goes on in their department. It was only a matter of time before this discourse on 'quality' and the institutions that go along with it should arrive at the shores of Japan, a nation that for many years was second only to the USA in the size of its tertiary education sector. Academics in universities in Japan, unlike their colleagues in the West, have usually not needed to answer to any higher authority about what goes on in their classroom, lecture-theatre or laboratory. Partly as a response to the authoritarianism that prevailed in Japan up to 1945, the post-war higher education system was founded upon strict principles of academic autonomy and freedom. This, combined with Japanese norms of respect for people, like university professors, who occupy positions of seniority, led to an atmosphere on Japan's campuses that made it very difficult for anybody to criticise a colleague's teaching. This was an unfortunate development, for as Reiko Yamada points out in this welcome new study of quality in education in Japan's universities, "a research-centered academic culture has long prevented substantive efforts to improve university pedagogy in Japan" (p. 22). This has been compounded by active "faculty resistance to educational assessment" (p. 95). Furthermore, students are unlikely to complain about the poor quality of undergraduate teaching because in most cases it is the name of the university and its network of contacts with employers that will determine career prospects post-graduation, not the content of the courses taught. In fact some critics of university education in Japan argue that, all too often, there is an unspoken agreement between professors and students that the pedagogic content of classes will not be too demanding on all parties concerned, allowing professors to spend more time on research and students to spend more time on social and club activities.

One of the most important contributions of Yamada's book is that it offers a practical way forward for administrators as well as professors that should address some of the serious problems affecting university teaching in Japan. The book has a slightly unusual structure in that although an edited volume, nine out of the twelve chapters are written by the editor with one additional chapter being co-authored by her. This gives the reader the feeling of a single-author volume for most of its length. However, it lacks some of the features of such a volume such as a final bibliography, or a glossary of the many acronyms that are used. The two chapters which are not written by Yamada complement well the other chapters in the book. Chapter one, written by John N. Hawkins gives an overview of Quality Assurance (QA) in other Asian nations and succeeds in giving a flavor of the "complexity, diversity of issues and motives of QA in the Asia region" (p.14). Chapter four, which is written by Patrick T. Terenzini and Robert D. Reason sketches a "conceptual map of the forces that the research literature suggests shape student success during college" (p. 70). It does not mention quality assessment in Japan, but it offers insights into how the debate is developing in education systems that are ahead of Japan in this area, particularly the USA. One advantage of the book's structure is that it allows the reader to dip in and read one chapter in isolation of the others.

The remaining ten chapters which are written by Yamada alone (except for chapter three which is co-authored with Aki Yamada) are devoted to a theoretical and practical discussion about how to achieve the Ministry of Education's goal of bringing Japan's university teaching up to internationally-recognised standards of quality. One of the first problems encountered by Yamada is the lack of quantitative research done thus far on the quality of undergraduate education in Japan – a lack

which speaks volumes about the attitude of most institutions of higher education to this very issue. Yamada writes that "(f)ew, if any, metrics exist at Japanese universities other than students' scores on English examinations such as the Test of English as a Foreign Language (TOEFL) or the Test of English for International Communication (TOEIC)" (p. 77). The author could have added that both of these tests are imperfect tools for measuring student advancement in English as a foreign language since they are designed with very different markets in mind. (TOEFL is a very difficult test designed to establish the suitability of the candidate to study at the university level in the medium of English, and TOEIC is a test designed to cheaply survey the English skills of large cohorts of company workers).

Yamada shows that although some data about students in Japanese universities has been gathered, it is of limited use.

> Since student surveys among universities in Japan were traditionally conducted in accordance with particular areas of interest on the part of the individual researchers or research organizations, a wide variety existed in terms of survey goals – as well as methods of survey implementation and data analysis. As a result, university educational effects and learning outcomes were able to be measured only partially and indirectly (p. 128).

Given this dearth of useful systematic data, Yamada and her research team are to be congratulated for setting up their own set of student surveys which are introduced in chapter five. Two of these surveys (conducted in 2005 and 2007) are a source of data that is analysed in chapter six and compared with results from an American survey conducted in 2005. It is significant (but unfortunately not surprising) that one of the conclusions drawn from this analysis is that "the percentage of students indicating an outcome of learning was significantly greater in the USA than in Japan" (p. 106). Here Yamada injects a note of caution that must be heeded in comparing self-reported data across cultures. Most people would agree, for example, that Japanese young people are more self-effacing than their American counterparts, an impression that is reinforced by the US survey result that showed 77.6% of students considering themselves to be "above average" in their chosen subjects (p. 107)! Such subjective data is important, but it must be backed up by objective data - wherever that is practicable - for comparisons across cultures of quality assessment to be meaningful. Yamada suggests that such data should include "students' credit acquisition, learning behaviors [for example number of hours spent studying], academic outcomes" and so on (p. 131). She also calls for greater transparency on the part of university departments that do collect such data.

Some of the most interesting and innovative parts of the book come in chapters nine, ten and eleven which deal with the period of transition between school and university. Yamada makes a strong case when she argues that the entry of the Japanese higher education system into a "post-massification" stage, i.e. one in which more than half of recent high school graduates enroll in higher education, means that more students than before will be poorly prepared for university study (p. 153). For an increasing proportion of Japanese students, there needs to be a smoother progression from the study methods used in high school to the study methods used in university. In chapter nine, Yamada discusses a survey she oversaw comparing American and Japanese policies relating to 'first year seminars', i.e. seminars designed to allow students to adjust smoothly to college life. Her research is based on questionnaires sent to several hundred American and Japanese deans and academic provosts in 2001-2. They asked about the content of first year seminars in relation to three factors: 'academic skills'; 'social skills'; and 'internal identity' (pp. 160-1). Respondents were asked to comment whether or not there had been improvements in these areas as a result of the introduction of the first year seminar system. The resulting data clearly show "that while American universities have seen improvement of students' skills and abilities in many fields after introducing first-year seminars, improvements of students' skills and abilities could not be observed in Japanese universities" (p. 166). Yamada argues persuasively that the reason for this difference lies in the shortage of useful data about the development of college students in Japan when compared to

the USA. As she rightly points out, "First-year seminars in the United States have not emerged in a vacuum" (p. 166), but are built upon a vast resource of data on 'college impact', i.e. the exact ways in which the student experience influences personal development and change. The lack of such data in Japan is a severe handicap for those seriously interested in improving undergraduate education.

In chapter twelve, which is the book's concluding chapter, Yamada writes that "we are now at the point of beginning to utilize scientific data toward the enhancement of university education" (p. 213). For observers of the Japanese education system, the key word here is 'beginning', because it is a simple recognition of reality that Quality Assessment in the USA and other Western countries is well advanced compared to the situation in Japan. This is a reality that is all the more clearly exposed by the ground-breaking comparative research in this book. The Japanese education system has had great success in the past at catching up with more advanced Western systems. Quality Assessment of undergraduate education certainly has the potential for being another area where Japan can catch up and even surpass its rivals in the West (and in the developing world). Yamada, however, is not optimistic: in her conclusion she writes that "it appears unclear whether Japanese higher education – and society in general – will be able to deal with the speed and success that are being demanded of today's globalized social order" (p. 209). If Japanese higher education institutions are to rise to the challenge presented to them, they will need much more of the kind of concrete data about undergraduate teaching and learning that is analysed in this book.

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