# Celebrating Multiculturalism: Implications for Teacher Training, Education and Research

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## ABSTRACT

Many societies in the Asia-Pacific region may be described as multi-ethnic or multicultural, but only a few have official policies of multiculturalism; that is, policies which recognize cultural diversity as a long-term and legitimate feature of society requiring special state measures to ensure social cohesion and social justice. Incidences of racism and discrimination highlight the limitations in achieving complete acceptance. As a consequence, peaceful coexistence may be fragile and problematic. In addition, the impact of globalization on teacher education is unprecedented. Changing in the global education landscape has transform the theory-practice nexus in teacher education. Another revolution is needed to transform educational system and prepare graduates for the 21st century realities. Drawing on the perspectives of the stakeholders and focusing on digital learners are pertinent to bring teacher education onto a higher level of excellence. In the new millennium, multi-cultural education must focus on the whole child – morally, intellectually, physically, socially and aesthetically. In meeting the needs of the stakeholders, authentic learning, multi-literacies, innovative thinking and research-based improvements are keys to the 21st century teacher education model. Authentic learning is the symbolism of multiculturalism typically focuses on real-world, complex problems and their solution using role-play exercises, problem-based activities, case studies, and participation in virtual communities of practice. The learning environments are inherently multidisciplinary, thus, authentic learning could be a dynamic tool to enhance learning and to provide multicultural opportunities for students to engage in higher-order thinking and active learning. Leading high performing teacher education system is also critical. Multicultural educational leaders need to focus on seeking new innovative models of teacher education, pedagogy and learning, and support services. Multicultural teacher education program could attract best students. In order to raise teachers and students' competencies and standards, it is not enough to declare high performing schools; it is critical to develop multicultural thinking and well-rounded students who are the future high performing thinkers and innovators. For the innovation culture to flourish, granting flexibility and autonomy is a way of moving forward. To gain international recognition, the development of multicultural curriculum for teacher education and training with a multidisciplinary and innovative orientation is critical. Hence, a country needs a dynamic and resilient multicultural teacher education framework or a roadmap for producing quality teachers in the context of sustainable development.

## Introduction

Much of the debate about multiculturalism and the emergence of conflictual and socially divisive ethnic groupings has led to the establishment of a number of international conventions and other instruments to guide policy-makers in multi-ethnic societies. According to Watson (2000), the whole issue of multiculturalism is about building and appropriation of different identities. He also asserts that people are all multicultural – culturally 'pure' societies simply do not exist. In many countries, however, the recognition of minority rights has been seen as a threat by those in the majority group. There is often a sense that multiculturalism privileges minorities and thus it is difficult to ensure a common, national sense of identity and commitment. This remains a challenge to identify the core values and common belonging that will unify the various ethnic groups (Vertovec, 2001). As Kymlicka (2001:3) notes, what is required is: "…a complex package of robust forms of nation-building combined and constrained by robust forms of minority rights." Many societies in the Asia-Pacific region may be described as multi-ethnic or multicultural, but only a few have official policies of multiculturalism; that is, policies which recognize cultural diversity as a long-term and legitimate feature of society requiring special state measures to ensure social cohesion and social justice. Incidences of racism and discrimination highlight the limitations in achieving complete acceptance. As a consequence, peaceful coexistence may be fragile and problematic.

One of the most significant factors directly affecting the contemporary ethnic composition of many societies is the exponential increase in international population movements (Inglis, 1995). These movements are one of the major features of globalization. The political and economic changes which underlie these movements differ from the previous major wave of international migration in the 19th and 20th centuries which saw an exodus of voluntary emigrants from Europe to the New World (Inglis, 1995). There was also the less well known labor migration from Asia, especially China, to the Americas and Australasia as well as to South East Asia. The characteristics of the migrants are now more varied with women becoming increasingly involved in labor migration. There is also a "brain-drain" of highly skilled technical, professional and managerial workers. At the same time, the actual forms of movement are also becoming more diversified. Permanent immigration and short-term labor migration now exist alongside refugee movements while there are also increasing movements by asylum seekers or those without legal status. International students too are a significant component in movements as are business people and tourists (Inglis, 1995).

As a result of the political, economic and demographic changes

which have occurred over the last 50 years, diversity in patterns of ethnic relations and in the range of ethnic identities, is a hallmark of the great majority of societies in the world (Inglis, 1995). Literature shows only 10 to 15 per cent of countries can be reasonably described as ethnically homogeneous (Connor, 1994; Väryinen, 1994). Not all cultural diversity is associated with recent immigration flow, nor is it necessarily an immigrant multiculturalism. There are long-standing culturally diverse populations in the Asia-Pacific region as there are important indigenous communities. However, recent immigration has reinforced the need to address the question of what a suitable policy framework would look like, combined with a shift to balance the contemporary needs of minority groups with their constitutional rights specified within and by a state (Inglis, 1995).

The rethinking of minority group rights in the context of the contemporary state, principally democratic, has been an important feature of political debate and policy development since the 1970s (Spoonley, 2002). The impact of independence movement and post-independence governments in Africa, Asia and Latin America, combined with civil rights movements in North America and Europe, and the approach adopted by international organizations such as the United Nations and UNESCO, all contributed to a new emphasis on minority rights and the

need to provide a degree of recognition in public spheres. The results have been played out in vastly different ways, and some countries are substantially further down the track than others (Spoonley, 2002). With the recent rapid expansion of tourism, international student exchanges and new patterns of global financial network, the increasing numbers of people from diverse ethnic backgrounds now come into regular contact. To ensure that these educational, economic and cultural relationships develop amicably and constructively, a viable multicultural policy and practice should be put in place. Thus, the purpose of this study is to examine the nature of multiculturalism and intercultural dynamics in Malaysia in light of current theories on cultural diversity.

**Theoretical Perspectives on Cultural Diversity**

Historically, the patterns of ethnic relations and the extent to which they are associated with incidences of inter-ethnic conflict have been extremely varied. According to Inglis (1995), several theories have been developed to explain the emergence of inter-ethnic conflicts ranging from imperial expansion and colonization to contract labor and settler immigration (e.g. Banton 1967; Blalock 1967; van den Berghe 1967; Schermerhorn 1970; Richmond 1994). Despite their theoretical differences, the fundamental premise highlights the influence of the dominant group in determining the inter-ethnic relations

in a country. Furthermore, patterns of ethnic relationship are rarely static but are evolving (Inglis, 1995).However, social theorists such as Durkheim, Marx, and Weber argued that, as a concomitant of the 19th century emergence of modern-industrial society, ethnic groups had lost their saliency in the lives of individuals (Inglis, 1995). Along with kinship and other status-based forms of social differentiation, ethnicity was to be replaced by class as the driving force in social organization. Nevertheless, as mentioned earlier, with the rise of pro-independence nationalistic movement in the 20th century, ethnicity has achieved prominent role again. Kymlicka (2001) and Bauböck (2001) have argued that democratic states are strengthened by the recognition of minority rights (Spoonley, 2002). The members of minority communities gain in a personal and collective sense (self and group esteem) from such recognition and they are given an incentive to commit to the state as a form of reciprocal recognition and obligation (Vertovec, 2001). Public institutions are encouraged to provide ethnic-relevant services; to encompass cultural diverse practices and communities, and to avoid discrimination (Vertovec, 2001).

There are several models that have been adopted regarding ethnic and national groups, ranging from coercive assimilation to coercive segregation, from conquest and colonization to federalism and self-government (Inglis, 1995). At one extreme are policies based on an assimilationist model which envisages that ethnic minorities will be incorporated fully into the society through a process of individual change in which individuals abandon their distinctive linguistic, cultural and social characteristics and takes on those of the dominant group (Inglis, 1995). By being completely absorbed into the mainstream society, it is argued that the bases for ethnically based conflict cease to exist. France is the prime example of a contemporary state which addresses ethnic diversity with an assimilationist model. At the other continuum are policies based on a differentialist model whereby conflict is avoided through a process which eliminates or minimizes contacts with ethnic minorities. An extreme version of this model involves the expulsion or 'ethnic cleansing' of ethnic minorities. Far more common forms, however, are policies which substantially restrict the participation of ethnic minority members in the mainstream society. The state, in contrast with the assimilationist model, may however allow, or in some cases sponsor, the development of parallel institutions catering in a minimal fashion for the educational, health or cultural needs of the ethnic minorities because they are excluded from the mainstream institutions. For instance, Turks in Germany or Koreans in Japan may not enjoy a natural right to citizenship in their countries of birth. Even though provisions exist for naturalization, the criteria are often extremely strict, even

for permanent residents and their locally born children (Inglis, 1995).

The multicultural model which derived from humanistic philosophy envisages that individuals and groups can be fully incorporated into the society without either losing their distinctiveness or being denied full participation. This process of full participation is critical to avoid ethnic conflict. In order to achieve this goal of full participation, the state institutions may need to be extensively modified so as to provide equally for those from different cultural and social backgrounds. In this process, the state plays an active role of sponsoring institutional change which may extend from the restructuring of mainstream institutions to the support of parallel institutions (Inglis, 1995). Australia, Canada, and Sweden are countries that have explicitly adopted a multicultural model to guide them in managing ethnic diversity. Within one society different models may also exist for those from different ethnic minorities. In Australia, for example, a differentialist model for the Aboriginal population coexisted with an assimilationist model for the immigrant population until 1967 when full citizenship rights were granted to Aborigines. In Germany and Japan at the present time, those of German and Japanese origin from their respective diasporic communities in Eastern Europe and South America have citizenship while native born members of ethnic minorities such as the Turks or Koreans are excluded under

*iussanguinis* citizenship provisions (Inglis, 1995).

## Multiculturalism in Different Countries

The founders of the United Nations, half a century ago, in the aftermath of the Second World War were motivated by a desire for international cooperation to ensure peace, development and respect for the rights of individuals. Based on the stark evidence of the experiences of ethnic minorities who had been victims of genocide in the Second World War, the need to address the situation of ethnic minorities becomes more urgent (Inglis, 1995). In 1948 the Universal Declaration of Human Rights provided for the first time the protection for cultural rights when Article 22 stated that everyone is entitled to realization of the cultural rights indispensable for dignity and the free development of personality. Of special importance is Article 27 of the 1966 International Covenant on Civil and Political Rights which states that:

*In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities should not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practice their own religion, or to use their own language.*

The 1992 Declaration on the Rights of Persons belonging to national or ethnic, religious and linguistic minorities extended these rights to also

include the rights of persons belonging to minorities to participate effectively in cultural, religious, social, economic and public life, as well as in the decision-making process concerning the minority to which they belong; to establish and monitor their own associations; to establish and maintain, without any discrimination, free and peaceful contacts with other members of their group or other citizens of other States to whom they are related by national or ethnic, religious or linguistic ties (MOST, 1995 Annex I).Multicultural policies have tended to replace earlier policies based on assimilation and differential models. This is because the assimilationist principle of complete individual adaptation of immigrants to a host society's culture and way of life proved illusory. Immigrants tended to cluster in certain types of work and residential areas, to maintain their culture and language and to form communities with their own religious, cultural and commercial infrastructure. At the same time, relatively easy access to citizenship in immigration countries like Australia, the USA and Canada meant that governments had to find ways of achieving good community relations in ethnically diverse populations. Multiculturalism is assumed as a "panacea" for multiethnic nation. However, the policy has always been controversial because it is seen by many as a threat to national culture and identity. Thus, all countries with multicultural policies experience tough debates on the issue.

The nexus between employment and education and training has been one of general concern in many societies which have experienced historically high levels of unemployment that have particularly affected the immigrant and ethnic minority populations. The need to overcome inequities in employment has been viewed as a key to avoiding the growth of structural disadvantage among women and ethnic minority groups. While access to language training and increased flexibility in recognizing training and experience gained in other countries have been important initiatives, the issues of discrimination in employment and other areas have also needed to be addressed. Australia and Canada have long had anti-discrimination legislation and Sweden passed a similar law in 1994 (inglis, 1995).

However, multiculturalism is a vague concept which relies on some understanding of the term 'culture'. Culture is commonly defined as a common language, a shared history, a shared set of religious beliefs and moral values, and a shared geographical origin. There are other definitions of culture from varied perspectives. According to Inglis (1995), multiculturalism is a systematic and comprehensive response to cultural and ethnic diversity through educational, linguistic, economic, and social mechanisms. I define multiculturalism as a recognition and commitment by a state to the right of its people to maintain cultural identity and receive

cultural justice. Critics argued that positive support of cultural diversity, or multiculturalism, has the potential to foster highly divisive social conflicts (Scully, 1995). Cultural conflict has been described as a struggle over values and claims to status, power and scarce resources, in which the aims of the conflicting parties are not only to gain the desired values but also to neutralize, injure or eliminate their rivals (Coser, 1968). In support of this position the critics cited the international resurgence of ethnic conflicts. One of the strongest statements of the dangers inherent in cultural diversity is Huntington's highly contentious thesis on the clash of civilizations in which religion is argued to play a crucial role (Huntington, 1996).

In addition, critics see multiculturalism as a strategy designed as a system of social control (Wilson, 1997). Further, according to Zizek (1997-1998), multiculturalism is a new way of domination by the international capital and movement. The Western idea of multiculturalism is intrinsically Eurocentric since it posits a single (Western) perspective for seeing all other cultures. Contrary to the earlier theories on the declining importance of ethnicity, it is argued that the contemporary processes of modernization and globalization are actively contributing to the growing importance of ethnicity and the increased significance of communitarian ties. What is frequently under-theorized in this type of analysis

is the role of the state and the capacities of social policy to intervene in this process so as to reduce the potential for conflict. However, because there are only limited examples of states where explicit multicultural programs and policies have been implemented, the debates on the actual effects of a policy of multiculturalism all too often proceed with little reference to empirical evidence.

In addition, the impact of globalization is beyond geographical borders that leads to a diminishing role of nation-states, forfeiture of their sovereignty and the rise of global hegemony of transnational mega conglomerates (Sahlberg, 2004). The world is becoming "smaller" and "flatter" in the sense that people can access to information easier and can participate in collaborative works across the nations regardless of their nationalities. Robertson (1992) describes globalization as "the compression of the world" as well as "the intensification of consciousness of the world as a whole". In another context, globalization is "about the monumental structural changes occurring in the processes of production and distribution in the global economy" (http://www.unesco.org/webworld/inf oethics). From these definitions have emerged popular terms like "the global village", "borderless world", "shrinking world" and "the invisible continent" (Ohmae, 2000). In the old world, producers dominate the economy. They set prices, they control

distribution channels, and they dictate the terms of alliance. On the invisible continent, as argued by Ohmae (2000), all the power now is in the hands of the consumers. With the emerging ubiquitous technology, universal access to knowledge is getting closer to becoming a reality. Hencetransformation in multi culture deeply affect educational policies, practices and institutions, from recent attempts to analyze and understand the multiple and complex effects of globalization on multicultural teacher education it is obvious that there is no single straightforward view of the consequences of the globalization process on teaching and learning in schools and other education institutions (Burbules& Torre, 2000; Carnoy, 1999; Hargreaves, 2003; OECD, 2001; Stromquist, 2002; World Bank, 2003). Nevertheless globalization has also created new opportunities to transform teacher education. This paper focuses on building a new model of teacher education.

**Impact of Globalization on Teacher Education**

According to Sahlberg (2004), globalization has two macro-level paradoxical effects on our daily lives. First, it simultaneously both integrates and segregates. It integrates world cultures through the global communication networks and less restricted movement of individuals. At the same time it creates a tension between those who are benefiting more and those who may be side-lined by the

market values and consumer cultures that are typical to many societies, especially in the areas that suffer from poverty or slower development. The challenge for future public education is to strengthen the teaching of ethics and a sense of global responsibility that go beyond the bounds of the knowledge economy. Second, globalization promotes competition although strategic alliances between competing parties are becoming a condition of success. Economics markets have become more open and flexible because of diminishing barriers of trade and lowering of labor and trade regulations. The mobility of goods, services, financial and intellectual capitals has increased due to sub-regional and global agreements. Competition to expand markets, promote innovations and develop highly skilled workforces is shifting the focus of work from quantities to qualities and from mastery of facts to professional flexibility and continuous renewal of personal capacities. Globalization increases competition because productivity and efficiency have become key descriptors of successful economies. Corporation and services organizations are regularly using quality assurance policies and committing themselves to management strategies that are based on assessment of performance of both staff and managers.

As a consequence, similar doctrines have emerged in education. Standards, testing and alternative forms of financing have come to challenge

conventional public education in many countries. In the name of accountability and transparency, schools, teachers and students are more often than before measured, tested and asked to perform under the purview of external inspectors. Even ministers of education today compete to determine whose students can perform the best in international student assessment programs. Indeed, introduction of international test comparisons, such as PISA (Program for International Student Assessment) and TIMSS (Trends in International Mathematics and Sciences Study), has been one of the strongest pretexts for schools reforms in many countries (Hargreaves, 2003). The emerging perception seems to be that making schools, teachers and students compete will itself improve the quality of education, as it has vitalized corporations in market economies. Various forms of educational standards have been created to help these competition to become fairer and more comparable (Sahlberg, 2004).

Education systems are reacting differently to the changes in the world new economics, political and cultural orders. Globalization and multiculturalism has become critical influences in nation-states social reforms as education sectors adjust to the new global environments that are characterized by flexibility diversity increased competition and unpredictable change. Understanding the effects of globalization on teaching and learning is essential for policy makers, educational leaders and other stakeholders. The main purpose of structural adjustment policies in the education sector has been a transition toward global educational standards. This is often done by benchmarking the entire systems of less-developed countries to those of economically more advanced ones. Unfortunately, governments often think that there is one correct approach to adjustment of education and that certain global education standards need to be met if the system is to perform in an internationally competitive way (Sahlberg, 2004). Research on multicultural reforms and experiences on structural adjustment suggest that governments need to realize that there is more than one way of proceeding on the way to improvement.

**Theory-Practice Nexus**

Based on National Institute of Education (NIE, 2009) Singapore, new teacher education model should provide the theoretical foundation to produce the "thinking teacher" while concurrently having strong partnership with key stakeholders and the schools to ensure strong clinical practice and to integrate the reality of professionalism in teaching development. The strength also lies in a strong base in subject matter and pedagogical content knowledge, as well as strong connection to educational research. The adoption of the university-based model demonstrates that teaching is a profession, where the development of teachers is underpinned by evidenced-based learning, and where teachers

require the award of a degree as a pre-requisite for joining the profession.The new multicultural teacher education model should build on existing strengths to bring teacher education to a higher plane of excellence, drawing on the diversity of stakeholders perspectives and putting the 21st century multicultural learners at the very heart of our educational goals. Based on extensive literature review, understanding of existing and emerging trends, local profile, changing landscape in policies and initiatives, and research data, a new model of multicultural teacher education for the 21st century is poised to be introduced to replace the less dynamic model.

It is a transformative endeavour that will guide the design, delivery and evaluation of teacher education programs in order to provide the best education to our aspiring and serving teachers to become 21st century teaching professionals. It is a key initiative under the teacher education sector and a concrete response to the educational challenges brought forth by the current multicultural landscape as well as anticipated future needs. Thus far, the 21st century has been characterised by knowledge-driven economies, rapid information exchanges and fast-moving communication technologies which have created new demands on education systems worldwide In the 21st century landscape, education must focus on nurturing the multicutural child-morally, intellectually, physically, socially and aesthetically.

Students need to acquire new knowledge, skills and dispositions to ensure their survival and success as individuals, as members of the community, and as citizens of our nation. To achieve this, the teacher training institutions and the stakeholders must develop teachers who are able to undertake greater responsibilities as they are at the forefront of educating our youth. It is now universally accepted that the quality of teaching force determines the quality of education. As we raise the standards for our children, our 21st century teachers will also need the right values, skills and knowledge to be effective practitioners who will bring about the desired outcomes of education (NIE, 2009).

The theory-practice gap is widely accepted as a prevalent shortcoming of teacher education programs. There is a need to achieve balance between theoretical knowledge and practice-based learning. A strengthened theory-practice nexus in multicultural teacher education programs allows teachers to leverage on both types of learning to effectively transfer to schools. The more common approaches of bridging this gap are through reflection, experiential learning, school-based research or inquiry projects and pedagogical tools that bring the relevant theories into the classroom. According to NIE (2009), teacher training institutions should undertake a number of initiatives to further strengthen the theory-practice

relationship in its programs taking cognizance of these approaches:

(a) The mentorship process will be strengthened, particularly in practicum and beyond. The institutions should initiate a more structured mentoring program.

(b) The practicum will be strengthened by enhancing research-based initiatives during the practicum such as reflection in action, school-based inquiry or research, using pedagogical tools to create a 'simulated' school environment and experiential learning.

(c) Enhancing school experience for teacher trainees by allowing the student teachers with an induction to the school culture and environment opportunities to observe experienced teachers and to co-teach, as well as provide a structure for observing and reflecting on these experiences.

**New Model of Teacher Education**

Based on constructivist philosophy, the use of authentic activities has been shown to have many benefits for multicultural learners (Herrington, Oliver, & Reeves, 2003). Authentic activities have been used successfully across a wide variety of discipline areas. Herrington, Oliver, and Reeves (2003) defined key characteristics of authentic activities based on a wide literature review of recent research and theory. They summarized ten (10) broad themes of authentic activities that include:

- *Authentic activities have real world relevance:*
Activities match as nearly as possible the real world tasks of professionals in practice rather than decontextualized or classroom based tasks.

- *Authentic activities are ill-defined, requiring students to define the tasks and sub-tasks needed to complete the activity:* Problems inherent in the activities are ill-defined and open to multiple interpretations rather than easily solved by the application of existing algorithms. Learners must identify their own unique tasks and sub-tasks in order to complete the major task.

- *Authentic activities comprise complex tasks to be investigated by students over a sustained period of time:* Activities are completed in days, weeks and months rather than minutes or hours. They require significant investment of time and intellectual resources.

- *Authentic activities provide the opportunity for students to examine the task from different perspectives, using a variety of resources:* The task affords learners the opportunity to examine the problem from a variety of theoretical and practical perspectives, rather than allowing a single perspective that learners must imitate to be successful. The use of a variety of resources rather than a limited

number of preselected references requires students to detect relevant from irrelevant information.

- *Authentic activities provide the opportunity to collaborate:* Collaboration is integral to the task, both within the course and the real world, rather than achievable by an individual learner.

- *Authentic activities provide the opportunity to reflect:* Activities need to enable learners to make choices and reflect on their learning both individually and socially.

- *Authentic activities can be integrated and applied across different subject areas and lead beyond domain specific outcomes:* Activities encourage interdisciplinary perspectives and enable students to play diverse roles thus building robust expertise rather than knowledge limited to a single well-defined field or domain.

- *Authentic activities are seamlessly integrated with assessment:* Assessment of activities is seamlessly integrated with the major task in a manner that reflects real world assessment, rather than separate artificial assessment removed from the nature of the task.

- *Authentic activities create polished products valuable in their own*

*right rather than as preparation for something else:* Activities culminate in the creation of a whole product rather than an exercise or sub-step in preparation for something else.

- *Authentic activities allow competing solutions and diversity of outcome:* Activities allow a range and diversity of outcomes open to multiple solutions of an original nature, rather than a single correct response obtained by the application of rules and procedures.

Authentic learning and innovation are closely related in the sense that authentic learning nurtures divergent thinking. In the new millennium, most teachers believe that creativity and innovation in the classroom could enhance authentic learning. According to Plsek (1997), creativity is the connecting and rearranging of knowledge – in the minds of people who will allow themselves to think flexibly – to generate new, often surprising ideas that others judge to be useful. Innovation is the application of a creative idea that results in a valuable improvement. Integration of technology in the classroom, as an example of innovation, goes far beyond just dropping technology into classrooms. For barely a decade, the world has witnessed what amounted to an innovation of the learning cultures. For example, teachers' instructional beliefs and practices underwent an

evolution and this has enhanced students' competencies as a result of teachers' creativity in the classroom (Dwyer, Ringstaff&Sandholtz, 1991). According to Dwyer et al. (1991), teachers were beginning to achieve a balance between the appropriate use of direct instruction strategies and collaborative, inquiry-driven knowledge-construction strategies. This collaborative inquiry-driven knowledge-construction can be considered as innovative strategy.

In the 21st century, income and wealth are generated by "selling" new ideas, new products and services. In the post-capitalist and post-modernist era, innovation has become the industrial "religion" through which firms believe it could increase market share and profits (Valery, 1999). According to Fisk (2011), idea is a new currency of success. According to MIT former President, Charles M. Vest (1997), the challenge of the future will be to create new ideas and to make innovation. The next round of competition is likely to be won by those who innovate, i.e., those who create new ideas, products, and services and those who solve new human problems and create new commerce. The new economy is driven by k-workers, entrepreneurs, technology, and innovation. New ideas, discoveries, and technologies have created new industries and products. Consequently, innovation is important and essential for income and wealth generation (IDRC, 2011). Moreover, the application of information technology in business operations has caused a profound change in the workplace (OECD, 2004). The new economy is rewarding for those who have high educational achievement and technical skills. As a result, the workers of the 21st century must acquire the needed skills and talents. Therefore, to accomplish this, the education system must be transformed to fulfil the requirements of the new economy. Emphasis on developing quality human capital is indispensable.

If a country lacks an adequate number of highly skilled local workers to cater the demand of the industry, foreigners and expatriates will fulfil the vacancies. The industry requires skilful workers, well educated, competent, talented and able to think critically. For that reason, managing a country's human talent is therefore the key to achieving global competitiveness. As for building of capabilities, this spans both education system and the ability to continuously upgrade the skills and capabilities of the population. In education, the focus should be on acquiring technical expertise, most recently in the areas of engineering, IT, services and biotechnology. It is also critical to enhance the skills of our graduates, like communications and public relations. The education institutions should offer various skills courses at different levels for those who are interested in authentic learning. In addition, post-graduate studies are aimed at helping graduates develop research skills.

**Developing a Research Culture**

Next, I'm posing this question, "How can school develop a research culture?" There is a vast literature on organizational culture. In general, culture may be thought of "...as being synonymous with tradition or heritage. It is a way of life particular to each succeeding generation. Culture contains the ideas and values, skills, art and technology of a people. It is the means by which each of us is able to guide our daily interaction with others" (Webb & Collette, 1973:49 quoted in Ferguson, 1999). In Malaysia, the Ministry of Education is committed to providing education and training to fulfil the human capital needs of the nation through strategic management, relevant and dynamic curricula, effective training and career development programs, continuous quality assurance and strong support services based on the National Education Philosophy. Schools also provide relevant technological or entrepreneurial education and training. These are aimed at upgrading basic skills as well as to promote research and development projects in collaboration with businesses and industries. Schools were also designed to provide lifelong learning opportunities for the students to be trained, "re-skilled" or "up-skilled".

There are multiple perspectives of culture. To enhance innovative and research culture, a teaching institution needs to identify the teacher culture. Hargreaves (1994: 166) stated that "teacher culture consists of the substantive attitudes, values, beliefs, habits, assumptions and ways of doing things that are shared within a particular teacher group ... the content of teacher cultures can be seen in what teachers think, say and do". According to McRoy, Flanzer and Zlotnik (2012), building research culture and infrastructure is critical. They assert that institutions need to examine or re-examine their research climate and culture and assess their readiness to further enhance their research environment. While research infrastructure was initially seen as support for scientific and engineering research, scholars in nearly every discipline increasingly require the same range of support to enhance their research capability. The critical aspects include to define the research needs, set priorities for research support, develop support strategies, design a funding model, and build partnerships to support research.

Creating and sharing new knowledge across a broad range of disciplines enhances the intellectual life of both teachers and students, and research productivity often serves as a yardstick by which the institution reputations are measured. At larger universities, research may be deeply embedded in the institutional culture, while at schools, a research agenda might require incubation, nurturing, and development of appropriate support. Schools might have fewer large projects, less indirect cost recovery, and fewer possible economies of scale than large universities. Nevertheless, research

remains important to teachers as change agents.Schools often lack staff with PhD qualification and departmental structures to support large-scale research, so they might need to take a different approach to developing an adequate research infrastructure. The *"school culture"* could result in inappropriate infrastructure to support research, inability to actively promote support for research, conflicting priorities for research infrastructure funding, reduced agility in providing needed computing resources to researchers, and lack of awareness by teachers of the limits of institutional infrastructure. These realities at schools can result in dissatisfied teachers and a barrier in conducting research activities. To build a research culture, schools need to use creativity in discovering the needs of their researchers, setting priorities for support, developing support strategies, funding and implementing research infrastructure, and building partnerships to enhance research support. Research cultures are investigated in more depth but a brief definition is provided here. A research culture might be described ideally as the common values, beliefs, attitudes and *"ways of doing things"* that affect the carrying out of research tasks in an institution. Nevertheless, it has been fascinating to trace the various ways in which individuals and groups have sought to define and extend the research culture in school setting.

## Action Research

Action research is a form of enquiry that enables teachers or practitioners to evaluate their practices. The idea of action research is that educational problems and issues are best identified and investigated where the action is − in the classroom and at the institutional level. By integrating research into these settings and engaging those who work at this level in research activities, findings can be applied immediately and problems solved more quickly (Guskey, 2000). Mc Niff (1988) defined action research as an approach to improve or enhance education through changes which make teachers more alert about themselves. They should also become more critical with those practices and ready to change any ineffective practices. Lomax (1994) has come out with the similar concept when he stressed that an action research is an educational research and it is different with research in education. This is because the researcher is the teacher herself, who aims to improve herself and her profession. Lomax also stressed that action research is very important for educational innovation as it is a way which enables the teachers to make improvement in education. In school setting, action research is a research on social situation involving teachers as researchers, with the aim of improving the quality of teaching practices. In doing the research, the teachers do innovation and changes by reflection and inquiries.

According to Ferguson (1999), teaching is a social practice that is susceptible of improvement. It is possible to improve teaching practice by following the "plan, act, observe and reflect" spiral, and teachers can learn how to follow these spirals self-critically and systematically. McNiff (1988) discussed action research in a specifically teaching context. She stressed collaboration with others, particularly noting that "it is research WITH, rather than research ON" (McNiff, 1988:4). In later writing, McNiff (1994a: 19) stressed the affective aspect of action research also, an aspect often not mentioned in other discussion:

*For me, in my perhaps idiosyncratic understanding of action research, it is that ability to be able to share the passion, the awe, the wonder, the beauty, the delight in your own life and share that with somebody else, to show that you really do delight in your own life, and each moment is better than the last, and help someone else to share that view of delight, and help someone else to find the delight in their own life.*

McNiff (1988) believes action research is largely a personal research endeavour, in which the researchers investigate their own practice with the aim of sharing with someone else what the research has revealed. It does not imply that the action researcher's specific contextual learning is necessarily appropriate for or should be applied to the work of others. Others have also added their perspectives to the action research literature. Kemmis and McTaggart (1988) emphasized the valuing of social justice in the conducting of action research – this is not stressed by other action research writers. They observed that action researchers take their collaborative action in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out.

According to Ferguson (1999), some researchers described uses of action research either purely or mainly for purposes of improving the teacher's own practice, sometimes in a solitary way. Broader issues of social justice, whether in their own context or looked at more widely, were not their immediate concern, and there is a debate over whether action research should be carried out individually or collaboratively (Elden & Chisholm, 1993; Zeichner&Noffke, 1998). Carr and Kemmis (1986) and McNiff (1988) emphasize on individuals working to improve their own practice; its use of the same plan, act, observe and reflect spiral, and its emphasis on collaboration. It does not mention, specifically, working for social justice. The World Congress on Action Research did, however, spell out the need for publication, power-sharing and ideally, absence of hierarchical ways of which are not overtly mentioned in the other definitions. It also noted connections with the tradition of reflective practice. Action

research, then, is a research approach with the following three agreed characteristics. Firstly, it is about individuals working in their own contexts to bring about improvements in their own practice in areas that they determine. Secondly, it follows a systematic process characterized by planning, acting, observing and reflecting. This is described as a spiral because the cycles of planning, acting, observing and reflecting. Thirdly, action research places a high priority on collaboration and on sharing of knowledge. This collaboration aims for the power-sharing to be egalitarian and the ways of working increasingly to become non-hierarchical. Kemmis and McTaggart (1988) emphasized that there should be some benefits for justice in the wider community, although this is not common to all approaches to action research.

Further, Ferguson (1999) explains about practical and emancipatory action research. Practical action research puts the emphasis on the conduct and outcomes of the research on the practitioners themselves. Outside facilitators form cooperative relationships with practitioners, helping them to articulate their own concerns, plan strategic action for change, monitor the problems and effects of changes, and reflect on the value and consequences of the changes actually achieved. Such action research may be labelled "practical" because it develops the practical reasoning of practitioners (Carr&Kemmis, 1986). In contrast,

emancipatory action research occurs when the practitioner group takes joint responsibility for the development of practice, understandings and situations, and views these as socially-constructed in the interactive processes of educational life. It does not treat teacher responsibility for classroom interaction as an individual matter, but, on the contrary, takes the view that the character of classroom interaction is also a matter for school determination and decision-making. According to Ferguson (1999), Stenhouse (1975) was at the forefront of the "researching teacher" movement in the United Kingdom claiming that all teaching ought to be based on research but that research and curriculum development should be the preserve of teachers who gain understanding of their work through studying their own problems and effects (McKernan, 1991). Stenhouse coined the term "teacher as researcher" (quoted in Zeichner&Noffke, 1998). Elliott and Adelman (1973) further promoted teacher-research work using action research in their identification of problems through utilizing systematic reflection, and the ongoing development of teacher self-awareness. Teachers, according to Elliot (1978), should interpret their everyday practice through the pursuit of reflective self-development. His idea was that the two areas, split by the tendency for theory to be developed in universities and promoted to practitioners, should be reunified through being developed by teacher themselves. This kind of

thinking has been continued and further developed in other countries around the world. Nevertheless, to move the "teacher as researcher" agenda forward, transformational leadership at the institution must be put in place and functional.

**Who is a Transformational Leader?**

According to Palispis (2010), a transformational leader is one who seeks to radically change an organization. The goal of the organization is to change for the better. A leader is naturally visionary is the sense that he/she has a clear vision for organization. A transformational leader creates a situation in the organization that is visionary, coaching, affiliative, and democratic. A leader possesses a charisma that resonates in the entire membership of the organization. First, this dream is transformed into a new vision. Experts in the study of leadership have pointed out time and again that the principal leaders of the world were dreamers and visionaries. They are people who look beyond the confines of space and time transcend the traditional boundaries of either their position or their respective organization. The first requirement of transformational leadership is the ability of the leader recognize the need for change, that the situation prevailing in the organization no longer sufficient to meet the demands and challenges of the present time. The leader affects change in the organization. When change starts to take place in the organization, the leader manages it very effectively.

According to Bennis and Goldsmith (1997), leadership is about innovating and initiating reforms. To instil the culture of innovation, leaders have to reward people for disagreeing, thinking outside of the box, and to tolerate failure. Great leadership keeps great talents. As Apple genius and innovation icon Steve Jobs aptly put it: "Innovation distinguishes leaders from followers" (http://thinkexist.com/quotes/steve_jobs/).The central focus of this leadership in the commitment and capacity of individual members; a higher level of personal commitment to organizational goals and a greater capacity for accomplishing organizational goals. Authority and influence are not necessarily allocated to those occupying formal positions. Everyone is recognized to possess certain potential that can contribute to higher performance. Power is attributed to collective aspirations and the desire for personal and collective mastery of the organizational vision. Transformational leadership involves the ability of the leader to reach the souls of the members in a fashion which raises human consciousness, builds meaning, and inspires human intent which is the source of power. This power is utilized for the benefit of the entire organization and its members. In the nutshell, transformational leadership involves building a shared vision, developing consensus about goals, and creating

high performance expectation in the entire organization. Eventually this lead to culture building. Thus, it is critical to have transformational leaders in spearheading a new model of teacher education.

## Meeting the Needs of the Stakeholders

The reflective teaching model could be used to provide a common framework to help teachers consolidate their experiences and guide them in systematically reflecting on their practices. Systematic mentoring system should also be used and new assessment approach could be implemented. A new model of partnership among universities, ministry and schools must be initiated to gather more input from the stakeholders. National Institute of Education (NIE) Singapore has been implementing a new teacher education model based on (a) evidence-based, research-informed improvements to teaching and learning, (b) academic quality management, (c) faculty professional development, and (d) infrastructure and systems to support learning

This transformative endeavour where 21$^{st}$ century teachers call for 21$^{st}$ century teacher educators requires strong reserves of self-belief and they should be supported by the appropriate resources.In NIE, in recent years, and a sizeable number of senior teachers and master teachers have been appointed and trained. Riding on the crest of this more on a bigger, more active role in

the mentoring of student teachers before, during and after practicum and beginning teachers during the induction period. This transformation will call for a new customized mentor training program. The success of the NIE teacher education model ultimately lies in the effective implementation of the recommendations put forward and the sustainable impact of any program innovations and new developments in curriculum, pedagogies and assessment. To gear up for the transformation process ahead. NIE as a community has to turn inwards and reflects on the necessary change of mind-sets, approaches, systems and technologies that are required to turn best intentions into action, and achieve a concerted synergy of excellences across the institute (NIE, 2009).

## Conclusion

This article argues that multiculturalism is having an effect on teaching and learning in three ways: educational development is often based on a global unified agenda, teaching and learning are being used as vehicles to improvement of quality, and emphasis on diversity is increasingly evident among individuals and schools. Furthermore, as a response to globalization, multicultural educators need to rethink the ways teaching and learning are organized in schools, promote appropriate flexibility at school level, creativity in classrooms and risk-taking among students and teachers as part of their daily work in school.Authentic learning is critical in the future paradigm. Authentic

learning nurtures divergent thinking in multicultural students. Divergence leads to innovative and inquisitive ways of thinking. Innovation in pedagogy and the enhancement of research culture is pertinent to achieve real transformation in education. The use of information and communication technologies (ICT) has been seen by researchers as a means to assist in solving research problems. However, although the use ICT within the R&D function has been seen as crucial in research and innovation, a number of teachers have not considered technology integration in their pedagogy and action research. This paper explores some of the new ways that multicultural teachers/researchers can use technology as a way to improve practice by using action research. Further, action research as a methodology uniquely suited to researching the processes of innovation and change. Action research can be a powerful systematic intervention, which goes beyond describing, analyzing and theorizing practices to reconstruct and transform those practices. In many institutions, technology integration - the use of technology to solve research problems – has become a norm. Drawing on

socio-cultural theory, this paper describes how teams of teachers and researchers should develop ways of using technology in assisting them to embark on action research. However, the tension between idiosyncratic and institutional knowledge construction is exacerbated by lack of technology proficiency among the action researchers. In addition, the lack of research culture and infrastructure in the institution makes it even worse. Nevertheless, to move the "teacher as researcher" agenda forward, transformational leadership at the institution must be put in place and functional. Thus, the need for transformational leadership in spearheading innovative teaching and research initiatives in the individual institution is crucial. The impetus to develop innovation and to actively engage in research and development emanated from the intense desire to expand the frontier of knowledge. Research should not only be aligned to the institution's vision and mission but on greater agenda on diversity. The primary goal of multiculturalism is to transform society through its impacts and outcomes.

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