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ANNE HICKLING-HUDSON, JORGE CORONA GONZALEZ, ELVIRA MARTIN SABINA

Education in Newly Independent Countries
Problematic Models and the Significance of the Cuban Alternative

1. Introduction

Socio-economic disparities prevail in the neo-colonial education systems that remain in many countries and regions, constituting a barrier to effective national development. Taking these disparities as a starting point, this paper considers the Cuban model of education and its current reforms as an alternative way of conceptualizing education and its role in development. The authors, two Cuban scholars and one Jamaican scholar, bring to this topic many years of involvement in planning, implementing and teaching education for national development, and have a particular interest in the global significance of the commitment that Cuba has demonstrated in promoting equity with quality in education. Our argument is that since the neoliberal world economic order does not support the equitable development of education, alternatives such as the Cuban model of education are increasingly important to demonstrate that the vision of equitable and high-quality education, and a sharing of the benefits of this education, can be achieved by a low-income country.

Cuba, not tied to the constraints of neoliberalism but with other economic challenges of its own, has built an effective model of education which has produced an educated and skilled population. The application of these skills to socio-economic improvement has enabled it to achieve the goals of supporting the population with adequate nutrition, excellent health and education services, sophisticated cultural arts provision, and a nearly total eradication of diseases including HIV/AIDS, to an extent that surpasses most other low-income countries. Not only did education withstand the
hardships of the 1989 collapse of the Soviet system that had provided support for Cuba, but also by 2000 it was able to marshal resources to initiate educational improvement, as well as to continue its unique program of educational assistance and collaboration with other poor countries. It is the continual drive to strengthen education internally, and the commitment to internationalist sharing of education, that constitutes two of the foundational characteristics of the Cuban model.

1.1 On a global scale: the disparity crisis in education

In most nations of Latin America, Africa, Asia, the Caribbean and the Pacific, the education system is organized along the lines of neo-colonial models, which deliver reasonably high quality education to a minority but poor quality to a majority of the population. As demonstrated by case studies in the book *Quality and Equality in Third World Education*, edited by Anthony Welch (2000), efficiency, equity and effectiveness in education all suffer under this model, which is characterized by huge disparities in access and quality. The underlying reasons behind disparities in access to schooling and higher education are not only economic, but also socio-political. In most underdeveloped countries, colonialism has left a legacy of weak, dependent economies, social class stratification characterized by huge economic and cultural divides between rich and poor, and a fragmented and distorted cultural consciousness that makes it difficult for the society to achieve national unity and self-reliance.

In the postcolonial era all these features inherited from the colonial period have been somewhat altered by the efforts of national liberation movements to achieve more equitable societies, yet aspects of them remain strong enough to constrain national development. This is the foundation of their difficulties in changing the problematic, neo-colonial models of education. The planning, financing and implementation of education are controlled by educated elites from the middle and upper strata of society. They have only to a moderate extent responded to the desire of the people to expand educational opportunities and improve quality. Postcolonial theory investigates the contradiction between the achievement of improvements such as increased access to all levels of education and more culturally conscious curricula, and the continuing fact that few societies have been willing to make the deeply radical changes that would increase equity in the system to the point
where the poor have similar opportunities to those enjoyed by the wealthy (Hickling-Hudson et al. 2004; Tikly 2004). Many children find themselves forced to drop out of the neglected schools for the poor before they reach puberty. They leave because of a combination of poverty and of a devastating experience of failure and humiliation at the hands of the school (Kozol 1992; Welch 2000; Samoff 2003; Tomasevski 2003; Harber 2004). They may suffer for the rest of their lives from the problems of minimal literacy, a low self-image and poor employment prospects, while the nation as a whole suffers from an insufficiently educated workforce, high unemployment, and too few with the skills and confidence to demand and build more equitable economies and societies. This serves to perpetuate the global division of labour, whereby the large, poorly-educated populations in the new nations still provide cheap and low-skilled labour for the globalised industries of the wealthy.

Since March 1990 at the Jomtien conference in Thailand, the Education for All (EFA) process outlined the basic goals necessary to guarantee education as a human right. The goals included the development of adequate early childhood care and education and universal primary education, putting in place structures to meet the learning needs of all young people and adults, and promoting adult literacy, gender equality and education quality. Unesco’s yearly monitoring report on the EFA program shows that there are at least 35 countries that cannot meet the modest goal of achieving universal primary education by 2015 (UNESCO 2004). The EFA goals reiterated at the conference in Dakar in 2000 are so far from being achieved that at the present rate, they would not be reached by the end of the 21st century. Although access to schooling has been expanded everywhere, it is still not guaranteed for all, not even at the primary level. UNESCO figures (2005) show that on a global scale:

- 781 million people are non-literate (15 % of adults, most of them women).
- 500 million children have no access to pre-school.
- 115 million children of primary school age are out of school (1in 5 worldwide; 38 % of these from the poorest households compared to 12 % from the richest.
- 284 million young people have no access to secondary school.
It was pointed out at the EFA conference in Dakar that in order to have basic education for all by 2015, given population increase, it would be necessary to spend US $8 billion per year (1 billion =1000 million US$). In the context of the neoliberal economic order, with reduced social spending and increased debt, it is completely impossible for impoverished countries to find this sum. The per capita expenditure of rich countries on education is twenty-six times that of the educational expenditure of poor countries, while at the same time, there is a decreasing trend in Official Development Assistance (ODA), which includes international aid for education (UNDP 2005). The scarcity of finances for education in the impoverished countries leads to a vicious cycle of educational, social and economic underdevelopment reinforcing each other. The cycle has become more acute in the era of neoliberal globalisation, during which wealthy ruling business elites have been able to impose policies on weak economies of the removal of protection for local infant industries, increased privatisation of businesses, reduction or erasure of price controls, cuts in government expenditure on services such as education and health, and user fees for these and other public services. In the view of some analysts this has brought to the poorer countries “economic catastrophe, the slowing down and even reversal of human development” (Tikly 2004:114). It has intensified the polarization between rich and poor on a world scale, especially in the underdeveloped countries, but also in developed countries that have minorities living in impoverished underdevelopment (Samoff 1994; Chossudovsky 2000; Hoogvelt 1997; Burbach 2001).

Knowledge has become a vital asset to economic growth and human development. But the education crisis that enmeshes most underdeveloped countries means that they are unable to encourage the development of the knowledge needed by the population.

2. The Millennium Development Goals and related educational changes: Can the world achieve them?

The definition of development utilised by the United Nations Development Program (UNDP) is that it is a process of equitable and sustainable economic growth, which promotes the survival and development of human
society. Its aim is to bring about social equity, autonomy, freedom of decision-making, equal opportunities, equality between men and women, employment for all, and the conservation and protection of the environment and of nations. The Millennium Development goals (MDGs) constitute a start in stating a consensus that something must be done to tackle global inequity, but would be more comprehensive were they to include cultural development, the right of people to have access to the greatest cultural achievements of humankind – access which is denied to the hungry, the desperate, the minimally educated. An implied but vital link between education and development is evident throughout the eight MDGs accepted by the representatives of all nations through the United Nations:

1. Eradicate extreme poverty and hunger.
2. Achieve universal primary education.
3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve maternal health.
7. Ensure environmental sustainability.
8. Develop a global partnership for development.

Education is a crucial component of each of these goals. The funds needed to accomplish these goals are estimated at US $150 billion. If the developed countries were sincere about their commitment to help to achieve these goals, they could be met. These countries would only have to give 0.7% as development aid, as promised years ago, instead of the 0.1% they are giving currently, and this would add US $160 billion a year to development. If the obscene spending on arms were cut, if the poor countries were no longer forced to pay interest on loans from rich ones, if rich countries were to remove agricultural subsidies for their farmers, and if even a fraction of the funds yielded out of those strategies were to be spent to help build the economies of the poor countries, then the millennium goals would not only be accomplished, but exceeded, and sustainable development could be under way.

However, huge barriers exist to the achievement of these goals, in particular for underdeveloped countries hard hit by the increasing spread of poverty versus the concentration of wealth among a minority, and the injustices of the current international economic order. UNDP measurements
such as the Human Development Index and the Human Poverty Index show that increasing social disparities are being generated during the era of neoliberalism. They suggest the acute need to search for alternative policies that can reverse these patterns. Every country has to search for policies to suit their circumstances. For in the neoliberal order, there is no way out for underdeveloped countries: their poverty and misery simply increases (Chossudovsky 2000; Burbach 2001; Ramsaran 2002; Samoff 2003; Tikly 2004). The positive image of globalisation is a distorted one when it does not show this.

If the present unjust global order continues, two thirds or more of the world’s people will be living in poverty, ill health and hunger. Today, one sixth of humanity is unable to read and write, and another proportion has low literacy skills and minimal education. If they remain uneducated, their ability to contribute to the Millennium Development Goals may be severely limited. The battle of ideas is important for all humanity in supporting the goals and strategies that could contribute to building a better society.

To conceptualise alternative policy in education, it is useful to study concrete educational experiments that have had extraordinary success. Some impoverished countries have improved education by allowing or encouraging decentralized experiments in devising new approaches to schooling. This policy brings about fragmented or piecemeal change, which improves segments of the education system, but may or may not eventually influence broader change in the whole system.

Scholars such as Farrell discuss some successful attempts to alter fundamentally the traditional teacher-directed model of schooling throughout the developing world (Farrell 1999: 170-171). These experiments, emphasising learning rather than teaching, have provided a superior educational experience for highly marginalised people. The experiments have been trying different combinations of teachers including fully trained and partially trained teachers, para-teachers and community resource people. They are using a variety of delivery methods – radio, television, correspondence, and sometimes computers. Teachers and students are together constructing new materials. They are using multi-grade classrooms, child-centred rather than teacher-driven pedagogy, free flows of children and adults between the school and the community, and they are changing the cycle of the school day and year to match work and social imperatives in particular commu-
nities. Major examples include the Escuela Nueva in Colombia, ‘Faith and Happiness’ schools in Venezuela, the non-formal Primary Education Program of the Bangladesh Rural Advancement Committee (BRAC), and community schools in Pakistan, all of which have spread from localized experiments to thousands of communities which have embraced them as opportunities for high-quality learning (Farrell 1999). Promising as these experiments are, they remain minority experiments in the entrenched neo-colonial structure of the education system of these countries.

Cuba, on the other hand, has achieved outstanding success in bringing about not minority change but comprehensive national educational change that has gone some way towards achieving a combination of equity and high quality. It has used a centralized policy and planning approach, based on a national consensus that is voiced through several levels of popular representation in ‘political organization made up of the totality of state institutions and professional and mass political organizations’ (Lopez Garcia 2005). Another aspect of Cuba’s success is that it has pioneered a system of educational assistance to other poor countries, which is large-scale, comprehensive and collaborative. This paper does not aim to set out a history of education in the Cuban Revolution, which has already been done (eg. Carnoy/Samoff 1990). Rather, it discusses the model of educational development in Cuba, and the current reforms in the system.

3. Educational development in Cuba

The goals and achievements of the educational system of the Cuban Revolution took place during a forty-six year process. This has, of course, experienced problems and errors, and Cuban authorities are still far from being satisfied with the system in terms of quality assurance, because their objective is to provide lifelong education of a high quality for all. However, the approach of Cuba to educational development deserves the attention of the world because of its effectiveness. It is obviously not feasible in its entirety for most countries, because of the absence in them of a supportive political context, but there are significant aspects of it that could be considered in the struggle to find a more successful development path. Cubans, rather than following the policy of decentralised, localised and uncoordinated change,
have changed education by agreeing on national goals of equity and qual-
ity, centralising policy to achieve these goals, decentralising management,
finance and local practice, and supporting the implementation of the entire
system at the highest political levels.

As a result, Cuba is now one of the few low-income countries on the way
to achieving an educational structure which facilitates lifelong education for
all. It is not possible to claim that this goal has been achieved if there are deep
weaknesses in the structure of education, such as illiteracy, wide educational
disparity between boys and girls and rich and poor, and between rural and
urban areas, inadequacies in national education structures and services, and
barriers to equal access such as high user fees which prevent poorer people
from utilising educational services. Equal socio-educational opportunity is
a necessary condition for lifelong education, and this has been established
in Cuba. This concept of lifelong learning is a humanistic one, different
from the neoliberal concept that emphasises the duty of citizens to prepare
themselves, largely at their own cost, to be a productive part of the econo-
my. Putting in place a system that facilitates access to lifelong learning is the
goal of the Cuban transformation programs which are currently being im-
plemented in all levels of education throughout the society, with the active
participation of teachers, parents and other citizens.

Suffering a devastating loss of its most important economic partners
when the Eastern bloc communist economy collapsed in 1989, Cuba’s econ-
omy had to undergo painful restructuring from 1989 to 1996 (named the
‘Special Period’) to find new ways of earning a national income, and diffe-
rent partners to collaborate in new enterprises. Added to this was the con-
stant struggle to survive four decades of an aggressive economic blockade
imposed by hostile US administrations and involving third countries, cau-
sing the loss to Cuba of an average of US$2 billion a year for 42 years (Espi-
nosa Martinez 2005:70). In spite of these hardships, the Cuban economy
has improved and is steadily growing. Between 1998 and 2002, the growth
in GDP was 3.4 %, according to ECLAC, the Economic Council for Latin
American and the Caribbean (ECLAC 2003a:2003b, quoted by Espino-
sa Martinez 2005:81). National income comes from agriculture, tourism,
genetic engineering, biotechnology and other areas of science, and today,
Cuba’s per capita income is about the same as that of Jamaica and many
other Caribbean countries with ‘market’ economies. Governmental support
for maintaining and improving education was unswerving, even during the worst of the Special Period, and now with the growing economy, a new suite of educational reforms is being undertaken to further improve the system. The Cuban president, Fidel Castro, who has played a key role in endorsing and guiding government support for educational reform, sees the current phase of reform as one that is at the same time “striving to perfect the work accomplished up until now, and proceeding on the basis of entirely new ideas and concepts. Today we are seeking for [...] an educational system that increasingly corresponds to the equality, full justice, self-esteem and moral and social needs of all people in the type of society that Cubans have decided to build” (Castro, September 16, 2002).

The fundamental educational changes pursued throughout the Cuban revolution were, firstly, that the content of education was transformed to serve the goals of the revolution for equity and planned socio-economic development, and secondly, that teachers were highly educated in five- year degree programs with further in-service training to carry out these aims. It has often been pointed out (Carnoy/Samoff 1990; Hickling-Hudson 2000) that Cuban education combined the three foundational principles of work, study and research. This has been comprehensively summed up as follows in the words of Oscar Elejalde, who for ten years was Director of Education from Primary to Tertiary levels on Cuba’s Isle of Youth, where thousands of overseas students as well as those born in Cuba were educated:

“Academic work is the key pillar of Cuban education. This includes education in all the subjects of the curriculum, plus extra education in political ideas to orient students towards helping with the socio-economic development of their countries. This education in values helps students to build solidarity, commitment, self-determination, collaboration and so on.

Productive work trains students in a culture of combining work with study. Students learnt to produce some of their own food, for example. Here, educators stress the development of productivity, responsibility and discipline.

Research helped to educate students in a scientific culture, stressing the scientific method and its application in solving practical needs. To graduate, students had to prepare a research paper each academic year, and they presented these papers at student forums designed for age and year level. At universities and polytechnics, they had to produce a thesis in the final
school year, to show their mastery of theory and practice.” (Elejalde, 2006, Interview)

So effective has been the achievement of high quality in education that Cuban primary school students ranked first by a very wide margin in a UNESCO assessment of language and mathematics carried out across 13 Latin American nations: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Chile, Honduras, México, Paraguay, Peru, Dominican Republic, and Venezuela (UNESCO-OREALC 2002). According to a Caribbean Education Task Force (2000) of academics and government officials, the following are among factors which have contributed to the high performance of the Cuban educational system, and which represent ‘important lessons to be learned by other countries in the Region’.

Table 1: Factors contributing to the high performance of the Cuban educational system

- Sustained high levels of investment in education.
- High levels of non-salary expenditures (approximately 40 % of the education budget).
- Provision throughout the country of low cost, high quality instructional materials, adapted to local realities.
- A consistent policy environment supportive of high-quality education.
- High professional status of teachers; regular in-service professional development through formal and informal methods.
- Involvement of teachers in applied research aimed at improving learning outcomes.
- Emphasis on evaluation and accountability throughout the system and aimed at school improvement through identification of problems and formulating and implementing plans of action.
- A system of ‘emulation’ rather than competition in which collaboration among peers is emphasised, high performing schools serving as a model to others.
- Wide stakeholder participation in school management.
- Strong commitment and support to rural children and those with special needs, ensuring access and provision of incentives to teachers who work in remote areas.
- Linking school and work through “labour education” emphasis on technical vocational education (50 % of students who complete Grade 9 pursue these subjects).
- Provision of “values education” as a core subject in the curriculum.

(Caribbean Education Task Force 2000)
Cuba has already fulfilled UNESCO’s Education For All (EFA) objectives. The Education For All Global Monitoring Report of 2005 commissioned case study research into eleven countries that have demonstrated strong commitment to EFA – Bangladesh, Brazil, Canada, Chile, Cuba, Egypt, Finland, Republic of Korea, Senegal, South Africa and Sri Lanka. The research found that four of them are achieving high standards of educational quality: Canada, Cuba, Finland, and the Republic of Korea. Cuba is the only one categorized as a lower-middle income country, while the other three are high-income nations. UNICEF observers note that Cuba is among the countries making the greatest progress towards the goals of the UN Convention on the Rights of the Child (see http://www.unicef.org/wsc/plan.htm). A profile of major features of Cuban achievements in education demonstrates the strength of the system. A foundational indicator of its effectiveness is that there is no illiteracy as a social phenomenon. Because of the Literacy Campaign of 1961, and the developments in Adult Education that followed, adults who had previously been deprived of formal education were able to move from basic literacy to post-literacy to equivalent primary and secondary schooling (Carnoy/Samoff 1990: 176-178). Another indicator of effectiveness is the equitable distribution of education throughout the country. This is shown by the 99% rate of school enrolment for students between 6 and 14 years old, and the widespread network of universities and other post-school institutions in each province. Other indicators include the facilitation of learning through audio-visual aids, two educational television channels, and the production and provision of textbooks and other publications to support the general cultural level of the population. A high proportion of the 18-25 age cohort (over 30%) completes university level education. Another vital indicator of effectiveness is that teaching is internationally recognised as of extraordinarily high quality, as was demonstrated by the UNESCO-OREALC evaluations of 1997 mentioned above.

The strength of Cuba’s education system is all the more remarkable when it is compared to the weakness of the system that preceded it. In the 1950s, Cuba had a deformed economic structure and very little technological development. Education, too, showed typical neo-colonial deformities. High-quality, prestigious education was reserved for the privileged minority with high incomes. Higher education, also for the minority, did not match the needs of socioeconomic development. Just over half (56%) of the child-
children went to primary school and only 28% of those continued their studies at the secondary level. According to the 1953 census, 1 million people could not read and write, amounting to 23.6% of the population over ten years of age. In the rural areas, the percentage rose to 41.7%, with a higher incidence among women. Educational services were inadequate, yet there were ten thousand teachers without a job.

The Cuban Revolution’s expansion of educational services involved a war against illiteracy, creating schools throughout the country, and training teachers capable of working in the most remote and economically depressed areas. At the same time, the development of its higher education subsystem was the cornerstone of the country’s ability to utilize highly skilled professionals in the improvement of its economy and social services. Schoolteachers and university lecturers alike implemented a model of education that sought to inculcate habits of integrating theory and practice as well as to promote socialist values. Cuba received thousands of scholarships to send students to study in the Soviet Union and East Germany as well as other East European countries. This led to a rapid development of education and skill levels in Cuba, and reinforced Cuba’s deep commitment to the principles and values of a ‘solidarity’ approach which leads it to provide, in turn, extraordinary levels of assistance in health, education and construction to other developing countries.

During the four decades of sustained social and political endeavour that led to the current high level of educational development, there were four fundamental requirements for success:
1) The absolute commitment of the State to the educational project.
2) The philosophy of valuing education, and the moral impulse in politics.
3) Extensive popular participation in educational initiatives.
4) The innovative capacity to change the system in response to the social and economic development of the country and the personal needs of the people.

In his article *Education, Revolution and Revolutionary Morality in Cuba*, Antoni Kapcia analyses the roots of the Revolution’s educational ethos. He observes that a foundation of this ethos is Cuba’s long-established, profound and consistent belief “in the liberating power of education and culture and […] in ‘moralism’, in the moral impulse in politics.” (Kapcia 2005: 403-
Also relevant to the ethos of Cuba’s educational model is the attachment of Cubans to the ideas and example of national heroes such as Jose Marti and Che Guevara, as well as their “deep sense of communal solidarity and struggle” which was reinforced by Cuba’s position “as an embattled enclave” (Kapcia 2005: 404).

Cuban educational transformation has gone through three major phases of change during the last four decades (Martín Sabina/Corona González 2005; Gomez 2003; 2004). The first phase was initiated by the 1961 National Literacy Campaign, accompanied by the 1962 University Reform, which established a cultural and practical link between university and society. The second phase, from the 1970s, achieved mass secondary education, the restructuring of higher education and the expansion of a network of universities and post-school polytechnics throughout the country. The third, starting from the late 1990s and continuing today, implements changes in primary, secondary and university education that will expand the extent to which Cuba’s cultural resources become available to the whole population. All three phases deepened the achievement of organising education to guarantee free access for all, but this of course is not enough to guarantee the provision of education of a high quality. Quality, as mentioned above, is demonstrated in the integration of study, work and research in education, and can be implemented through pedagogy because of the high level of training and motivation and the regular professional development of Cuba’s teachers.

The next section outlines the important structural changes in the third, current phase of education policy. It is based on the involvement and knowledge of two of the authors of this article in policy, planning and implementation of educational reform in Cuba. We analyse the potential of these reforms to bring about a significant improvement of the system by expanding the access of the population to learning and culture.
4. Developments in current educational policy and practice in Cuba

4.1 Early childhood education: “Teach your Child”
This is a massive program of parental involvement in pre-school education, which together with education in kindergartens, encompasses over 99% of children between zero and five years of age. “Teach your Child” is a non-institutional program, developed as the result of ten years of research on preschool education. It is based on active participation of the parents, the family doctor and other community members. Parents receive advice on the activities they could do with their children, at the different stages of their development, to stimulate them to learn. One of the parents or another family member can act as a teacher, with the help of professional teachers living in the community and of a series of guiding booklets developed by experts. The family doctor checks regularly on the healthy growth of the child. So the teacher, doctor and parents understand the child as a whole and learning becomes more effective in this context. Research is being carried out on the impact of this program.

4.2 Primary and secondary education: small classes, individual attention and the comprehensive teacher
In primary school education, class sizes are being reduced to 20 or less, in order to help the teacher to pay individual attention to each child. A teacher has the option either of staying with the same class of students from the 1st grade until the 6th grade, or of staying with the class from 1st to 4th grade, with another teacher at the 5th and 6th grade. The teacher gets to know the students and their families, and can maintain the close and affectionate relationship, which is so important in the early years. This ensures that the diverse needs of all students are addressed. The availability of TV sets, videos and computers in all classrooms helps both teachers and students.

Basic secondary education has undergone the most profound innovations and remodeling. Traditionally, secondary teachers have been trained as curriculum specialists teaching one or two particular subjects. The present trend is to train teachers more in the way that primary teachers are trained, that is, as “comprehensive teachers” who are capable of teaching a range of subjects. They will work with no more than 15 students through grades 7,
8 and 9, and will be in close contact with their parents, offering attention to the developmental needs of each adolescent as well as to the group.

There was much debate between educators over this reform. Some felt that the comprehensive teacher would not be able to ensure a high quality of subject learning at secondary level, while others felt that the proliferation of curriculum subjects was not the best approach in the formation of young adolescents. The decision was that the adoption of the comprehensive teacher approach would facilitate a more integrated curriculum. The change is being accompanied by the retention of specialist teachers to assist in arts, foreign languages and physical education, and information technology is used to fill gaps in knowledge. For example, to improve methods and content knowledge, schoolteachers can watch video classes taught by top-level teachers in any subject. They utilize educative games and computers to help them improve the quality of learning for the students in mathematics, the natural sciences, geography and history. The aim is for the middle secondary teacher to become a holistic educator rather than just a teacher of subjects. They supervise the behavioural and intellectual development of each child, as well as guiding their academic development with the assistance of educational software developed by experts. This change in the approach to secondary teaching is being evaluated for quality assurance each year.

The reduction of class sizes at both primary and secondary level is an educational reform of immense significance. Teachers with 15 to 20 students to a class are much more likely to be able to provide training in social activities which link theory to practice. They are more likely to be able to teach in a way that combines the development of knowledge with an understanding of values and norms, and to promote reflective and flexible ways of thinking to foster stable self-esteem. They can develop a closer relationship with their students, and this enables them to take into consideration their individual differences and family backgrounds in relation with their learning process. The reduction of class size, the training of thousands of new young teachers and the professional evaluation of the new reforms increased the education budget by several million dollars annually. This is demonstrated by the fact that while education comprised 14% to 16% of the national Gross Domestic Product between 1990 and 2001; in 2002 it rose to 19% and in 2003 and 2004 it was above 21% of GDP (National Office of Statistics, Cuba, see Appendix 1).
4.3 Special education: a combination of ‘mainstreaming’ and special schooling

Special education services have been ‘mainstreamed’ – that is, provided to children with disabilities/special educational needs, in an integrated way in regular schools. However, some acute problems require more specialized attention than teachers can give. For children with such problems, there are diagnostic centers, and a visiting teacher program in hospital classrooms, in pupils’ homes, and in these diagnostic centers. There are still about 500 special schools, supplied with computers, videos and television, for children who need them. Parents and teachers decide when these children are ready to go into a regular school.

4.4 Teacher education: increased practical experience

A new teacher education program has been developed which requires more teacher education to take place in communities than was the case before, when it took place mainly in the Pedagogical Universities. The first year is an intensive one-year preparation in accelerated undergraduate study, which improves core skills, personal development and classroom participation. From the second year, each student begins teaching in a school in their own municipality and attends a local university outreach center for lectures. All students are guided by an experienced teacher-mentor who acts as their personal tutor. As well, their lecturers from the Pedagogical Universities visit them at the school, and they visit the outreach center to receive classes from these lecturers. This program is also being evaluated by ongoing research every year.

4.5 The extension of post-school education

One of the most successful programs treats study as a full-time job. This was established to deal with the problem of young people who left school after the ninth grade and are not employed. Some left because of early pregnancy, others to try to provide extra support for their families. The problem was analyzed by the government, student councils and the Communist Youth organization, and it was decided that this group of young people should be offered the chance to go back to school and be given a monthly payment for this. About 110,000 students between 17 and 29 years of age went into this program. It provides school upgrading and career opportunities for them. Students receive economic support and are officially regarded
as being employed, in an effort to improve their self-esteem. Some retired
teachers are teaching in this program, plus existing teachers in the munici-
pality.

An interesting development in the provision of post-school education
is the establishment of new polytechnics, which train middle-level techni-
cians in Information Technology. These polytechnics are already showing
their potential, particularly in the students’ contribution to the production
of software, which is being successfully marketed overseas.

An intensive ten-month program to train social workers is delivered by
university professors for young people who have completed grade 11 or 12
at senior high school. This is proving to be useful in solving social problems
at the community level. Graduates from this ten-month program can enroll
in part-time university courses at their Municipal University Branch.

4.6 The extension of higher education

Cuba’s university system in 1959 consisted of three comprehensive uni-
versities. The 47 years of the Revolution created a network of 64 compre-
hensive, medical, technical, pedagogical, sports and arts universities. In the
year 2000 there were 150,000 students at the tertiary level in Cuba. The
number has now grown to half a million students because of the introdution
of the Municipal University Centres (SUMs), an innovation of the Uni-
versity Municipality Branch Program developed since 2000. Today, 50 % of
the 18 to 24 year old cohort is enrolled in university studies.

In the country’s political-administrative division, the municipalities are
the basic management level. A SUM is part of the structure of a nearby uni-
versity. These branches of the existing network of universities aim to pro-
vide additional opportunities within communities for people to undertake
university studies. There are more than 3000 SUMs distributed in 169 mu-
unicipalities, in which school buildings are used in the evenings for univer-
sity classes (Martín Sabina 2003). The SUMs provide flexible learning to
suit students’ needs. Some are part time students who continue to work at
other jobs, while others are full-time students. Unlike the traditional five-
year, full-time university degree, the pedagogic model of the SUM allows
study without limits of time or age, until graduation. This model has faci-
litated an increase in postgraduate as well as undergraduate study. For ex-
ample, the model is utilized by many teachers who wish to upgrade their
qualifications. 25% of the existing teaching force is currently enrolled in Masters degree programs offered by the Pedagogical Universities utilizing an ‘Open Learning’ approach which mixes distance and on-site classes through the SUMs. The university system currently has 25,200 full time academic staff plus 65,427 lecturers in SUM Programs.

To achieve universal higher education, the old concept of the ivory tower has been left behind. The Municipal University Campuses help Cuba to progress beyond the goal of taking the university towards the community, and facilitate the goal of the university in the community. Municipal University Centres have a small number of full time staff seconded from the central university campus. They work with local professionals who serve as part-time teachers, with advice from full-time academics at the central campus. They have undergone a rigorous process of selection and training. The SUMs offer studies in several tutor-assisted undergraduate distance-learning programs. It is projected that graduates from the SUMs will reach the same standard as those graduating from full-time courses. The successful implementation of this innovation could revolutionize the entire higher education subsystem. Structural transformation at the universities is taking place in order to increase their capacity to deal with this new experience. Universities have to learn to plan and work flexibly under conditions of change, and to make efficient use of teamwork within the academy, both at the central university campus and in the municipality.

This university expansion is the third step in the improvement of education in the Cuban Revolution. The first was the universalization of literacy and primary education. The second was to universalize secondary education. These two stages were accompanied by a vast increase in teacher education at the Pedagogical Universities. Up until the 1990s, enough teachers were trained to allow about 20% of teachers to have a sabbatical year every five years, in order to upgrade their professionalism and qualifications. The third step, the mass expansion of university education, will play a significant role in ending elitism in education and society. This expansion will provide many more people with the possibility of attaining high levels of culture in a system of lifelong learning. It will also enable the benefits of university research to be percolated with more intensity throughout local communities and workplaces (Martín Sabina 2003). What is envisaged is a circular flow of ideas and knowledge in which the movement for science and technolo-
gical innovation, through organizations such as the Forum of Science and Technology, support the Municipal University Campuses, which in turn contribute to boost existing opportunities (Vecino-Aleгрet 2006:13).

5. **International cooperation: Restructuring education for sustainable human development through ‘The Globalization of Solidarity’**

Fundamental education reform is an essential factor in the world’s progress towards achieving a fair and just global society, since educated and active citizenship will facilitate people’s ability to solve the huge problems of humanity.

The world needs to face difficult quantitative and qualitative questions in the task of restructuring education for sustainable human development and good citizenship. Quantitative issues focus on expanding access to and opportunities for education, but overlap with qualitative issues. How, for example, do we allocate the resources and motivate people to become teachers in the numbers required to provide education for all? UNESCO’s figures in 1998 estimate that there are about 57 million schoolteachers in the world. Even with increased teaching through information technology, many millions of new teachers would be necessary to make ‘Education For All’ a real possibility. How will we redesign and build the schools and infrastructure needed for this purpose? How will society decide how many different types and numbers of professionals are to be trained? In what proportion should resources, including Information Technology resources, be allocated to the different levels of education (primary, secondary, adult education, tertiary and post-tertiary) in order to provide lifelong learning for all? Qualitative questions are equally difficult to tackle. Humanities, social science and science specialists, conservatives and progressives, argue over the kind of knowledge and education we should be providing for the youths, the future teachers and professors, and the professionals of the new generation. They may agree rhetorically on the goals of developing in the new generation a culture of solidarity and peace, based on respect for the rights of others, and on cooperation in facing dangers, challenges and barriers to
human advancement, but their strategies for reaching these goals are likely to have vast differences.

Our view is that international cooperation for educational development demands radical action in facing the current deep inequities. Many of the world conferences that have taken place over the past 20 years have agreed on this, but little action has been taken to advance the goals. The actions taken do not match the dimensions of the problems to be solved. Every few years, it is demonstrated that the problems are far from being solved, and the timetable for solving the problems is put forward by several years. This has happened with the ‘Education For All’ process. Consensus over which problems need to be solved, and how to solve them, is frequently reached at conferences organised by UNESCO, the World Health Organization, the UNDP, UNICEF, and the Food and Agriculture Organization (FAO). The neoliberal policy of cutting national budget spending inherently impedes the crucial policy goal of making education a priority to government and the population. Thus, a neoliberal model excludes the possibility of the world taking the actions and measures necessary to solve socio-educational problems.

In a new world order, the national state should not be a mere guardian of the interests of the transnationals and speculative capital. It should take up the task of fighting to secure for all its citizens the right to education, health, employment and a dignified life. This would be based on a national consensus and would include massive participation from a majority of the population, who should be actors in changing their livelihood. As is the case with Cuba, the nation state ideally should cooperate with other states to help bring about these rights for the whole global population. Because countries have been so debilitated by centuries of colonialism and exploitation, they are unlikely to be able to make changes on the scale needed without systematic aid. As is pointed out in the UNDP’s Human Development Report 2005, “International aid is one of the most powerful weapons in the war against poverty. Today, that weapon is underused and badly targeted. There is too little aid and too much of what is provided is weakly linked to human development. Fixing the international aid system is one of the most urgent priorities facing governments at the start of the 10-year countdown to 2015.” The problem is to find approaches that promote the practice of ideas expressed by the late Pope, John Paul the Second, when on his visit to
Cuba in the second half of the decade of the 1990s he called for ‘the globalization of solidarity instead of neoliberal globalization’.

Cuba’s international aid is neither ‘underused’ nor ‘badly targeted’, to quote the UNDP’s criticism of the average approach to aid. The main principle of Cuba’s approach in internationalism is that of solidarity. Cuba has received a great deal of assistance over the years, and in solidarity it gives assistance to others in a collaborative way, in areas that its partners have requested. It has carried out this principle of solidarity despite the difficulties caused by the US blockade and economic war. The basic ideas underlying collaboration as solidarity are illustrated by the present relationship between Cuba and Venezuela. The general principles of agreement are as follows:

- Absolute respect for the national sovereignty and self-determination of the countries involved.
- No interference in the internal affairs of other nations.
- Respect for national and cultural diversity.
- An approach that takes into consideration the different economic levels, the strengths and weaknesses, of each country, in order to help each other on the basis of solidarity rather than following only the rules of the market.
- Identifying different approaches to bilateral financing and admitting the joining of a third party if this party agrees with the general solidarity principles. The third party could be, for example, UNESCO, UNICEF, the UNDP, or it could be another country.
- Transferring technologies and knowledge without cost to poor countries in need of them, on the basis that knowledge is the patrimony of humanity, and not private property for profit.

This principle of solidarity, based on the ideas of Simon Bolivar and Jose Marti, was expressed in an agreement signed on 14 December, 2004, by the Presidents of Venezuela and Cuba. The agreement, subsequently joined by Bolivia as well, was an initiative of the Venezuelan President, Hugo Chavez. Named “La Alternativa Bolivariana para las Américas”, ALBA, (Bolivar’s Alternative for the Americas), it is a program aiming for collaboration between Latin American and Caribbean countries based on solidarity, mutual benefits and mutual respect. ALBA represents an alternative to the “Acuerdo de Libre Comercio para las Américas”, ALCA (the Free Trade Agreement for the Americas), designed by the government of the USA. The
proposition that all the countries in the region should subscribe to ALCA was defeated at the Regional Summit held in “Mar del Plata”, Argentina, 2006. The region now has a choice between the two approaches, with some opting for ALBA and others for ALCA.

6. Cuban solidarity through literacy and post-literacy assistance

Cuban advisers have participated in literacy and post literacy programs in many countries using a variety of methods, including radio and television. This facilitates the design of high quality programs and the reach of these programs to a large numbers of people at minimum cost. The three pillars of the Cuban method are: mass programs, high quality programs, and low cost programs. Cuba has carried out the programs in Colombia, Brazil, México, Argentina, Guatemala, Haiti and Venezuela, as well as Ethiopia, Nicaragua, Cape Verde, Belize. Each program is negotiated with the country’s government. The general principles of solidarity are followed, that is the teaching method (technology transfer) is freely given, and the rest of the cost is shared between Cuba and the particular country, depending on their capabilities. For example, in the case of Venezuela, Cuba provided the method, the TV sets and the booklets required to teach the program, and Venezuela paid for the transport costs accommodation, and personal expense allowances for the Cuban advisers. However, in the case of Haiti, one of the poorest countries in the Americas, the whole literacy program is provided by Cuba with Haiti incurring only a minimal cost.

The Cuban literacy education professors who carry out the internationalist literacy campaigns are highly trained academics. The literacy system that they have designed has four components: preparation of materials, collaboration with and training of staff, video and classroom pedagogy, and evaluation. Firstly, they prepare a series of lessons, working together with educators and cultural experts from the host country to ensure that the material is culturally authentic. National experts become the video presenters of the programs. Secondly, the Cuban literacy educators train local facilitators in adult education pedagogy and assessment. The third component is that facilitators and teaching aides in classrooms with literacy students all
over the country watch the video lesson. As it proceeds, they help the students do the exercises and assess their work. The fourth aspect, evaluation, is based on observation of the students – their behaviour and performance in the class, and attendance, and it includes the self-evaluation of the student. This process of evaluation, 70 % class work and 30 % through a test, is systematically implemented by the facilitator. The objective is for the students to succeed, which they have a high chance of doing since the facilitators pay individual attention to their needs (Canfux 2006).

This kind of literacy program features minimum cost, maximum participation. Facilitators would have required 3 years training or more, plus experience, to design video classes, so it is more efficient to use highly trained professors. The state has to pay for the rooms used, TV time, and the training of facilitators as implementers of the literacy program throughout the country, but the training of facilitators in the old techniques of the face-to-face instruction of small groups would have cost far more (Canfux 2006).

UNESCO has estimated that there are 781 million people who are illiterate or semi-literate. Cuba has proposed to UNESCO that at a cost of US $12 billion (which is much less than world expenditure in wars and commercial advertisements), it would be possible to eradicate illiteracy and semi-literacy in ten years among this number of people, using its program and approach of effective international cooperation. At present, there are only two countries in the underdeveloped world to have eradicated illiteracy, Cuba and Venezuela. Cuban illiteracy was eradicated in 1961. Venezuela, using Cuban advisors and support, has been able to eradicate illiteracy in three years, between 2002–2005. During these years, 1.5 million people were taught how to read and write. This is the beginning of a process of upgrading the entire educational system of the country from the post-literacy to the tertiary level. Venezuela, in turn, assists Cuba in vital trade agreements, particularly in subsidized access to oil.

Developing countries do not yet have a widespread tradition of cooperation with each other. Cuba, however, has pioneered an approach to cooperation that over the past four decades has involved hundreds of thousands of people from underdeveloped countries working together with Cubans in health, education, construction and other arenas in the effort to develop a better life. In spite of the problems in education, there is potential for development through the means of the kind of ‘South-South’ collaboration that
Cuba has pioneered particularly in Africa, Latin America and the Caribbean (Hickling-Hudson 2000; 2004). For this, the first necessity is for the partner countries to have the political will to help each other. A solidarity approach is required rather than a market approach. The solidarity approach means that the countries will agree to exchange assistance without looking for full international fees. Secondly, it is necessary for the collaborating countries to have identified common interests. Countries of the South have been conditioned to look towards the North for ideas, information and innovation. So the information gap must be overcome: the countries of the South have to learn to find out more from each other about their mutual needs, strengths and weaknesses in education. Thirdly, the funding situation must be worked out; and the collaborating countries will have to negotiate this in relation to their capabilities.

7. Conclusion

The millennium goals of sustainable development, agreed on at the United Nations, have outlined a vision of modest progress for poorer countries. Over the past half century the wealthy, developed countries have financed some programs of educational aid that have been working well in such countries. But it is clear that these programs of aid are like a drop in the bucket compared to the great need for the type of aid and solidarity that would promote systematic and sustainable progress in education. It is also clear that if globalization continues to be shaped by the doctrines of neoliberalism, the goals of achieving a more equitable global society are unlikely to be met. Instead, current trends for increasing poverty and wider disparities between rich and poor will continue.

Given this political situation, the Cuban model of education and its current reforms constitute an alternative way of conceptualizing education and its role in development. Despite the world crisis, the economic aggressions described above and its economic status as an underdeveloped country, Cuba has been able to accomplish and sustain significant achievements in educational development as has been acknowledged by numerous experts, national governments and international agencies such as UNESCO and UNICEF.
Cuba developed its education system with massive help from the former Socialist bloc, and as a result was able to excel in producing large numbers of educated people, including young professionals and skilled technicians, who were charged to apply their knowledge to socio-economic development. In spite of the severe blow of the collapse of Soviet assistance, Cubans surmounted the crisis by instituting a transitional ‘Special Period’ of intense restructuring of their economy and society. During the hardships of restructuring, great efforts were made to maintain the essentials of the educational system, and when the economy started to recover and grow as a result of new strategies and alliances, significant changes were launched in an effort to improve every sector of education. While in primary and secondary education the general global trend is to try to change education by changing the content of study plans, programs and textbooks, Cuba is taking a different approach with the significant change of transforming teachers into comprehensive educators responsible for the continuous overall education and caring support of small class groupings of students, with the help of the new technologies of information and communication. While the global trend is to try to expand higher education through a ‘user pays’ approach, in Cuba the state provides higher education, and the new University Municipality Branch Program is massively expanding access to university studies for thousands of citizens, especially youngsters, using alternative scheduling, as described above, in existing schools and other community facilities.

Cuba’s intense focus on maintaining and improving the breadth and quality of the education system was accompanied by a philosophical commitment to international solidarity, and Cubans showed the will to collaborate in assisting and cooperating in social development projects on a global scale. It is this combination of preparedness, values and vision that has enabled Cuba to pioneer a unique program of collaboration in education with many impoverished countries in Africa, Asian and the Caribbean. The Cuban approach to education demonstrates that equitable and high-quality education can be pursued and achieved by low-income countries, if there is political will and commitment based on solidarity and cooperation, regardless of an underdeveloped status and an adverse international context. Moreover, Cuban solidarity can assist these countries to move faster towards that vision in a global period when their future sustainability depends on massive educational improvements. It is this optimistic belief in the capacity
for collective transformation that the authors share with others who strongly believe that a better world is possible if more and more of us have the conscience and will to build it.

Appendix 1: Current expenditure in education as a percentage of the national budget and the gross domestic product (millions of Cuban pesos).

<table>
<thead>
<tr>
<th>Year</th>
<th>Educational budget.Current expenditure</th>
<th>% of the national current expenditure budget</th>
<th>% of the GDP</th>
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<td>1990</td>
<td>1619.5</td>
<td>8,2</td>
<td>15.8</td>
</tr>
<tr>
<td>1993</td>
<td>1384,9</td>
<td>9,3</td>
<td>16.5</td>
</tr>
<tr>
<td>1994</td>
<td>1334,6</td>
<td>7,0</td>
<td>14.3</td>
</tr>
<tr>
<td>1995</td>
<td>1358,7</td>
<td>6,3</td>
<td>16.0</td>
</tr>
<tr>
<td>1996</td>
<td>1421,3</td>
<td>6,1</td>
<td>15.2</td>
</tr>
<tr>
<td>1997</td>
<td>1464,0</td>
<td>6,2</td>
<td>14.0</td>
</tr>
<tr>
<td>1998</td>
<td>1509,7</td>
<td>6,3</td>
<td>14.9</td>
</tr>
<tr>
<td>1999</td>
<td>1829,6</td>
<td>7,0</td>
<td>16.5</td>
</tr>
<tr>
<td>2000</td>
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<td>7,4</td>
<td>16.7</td>
</tr>
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</tr>
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<tr>
<td>2004</td>
<td>3601,0</td>
<td>10,3</td>
<td>21.7</td>
</tr>
</tbody>
</table>


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Elejalde, Oscar (2006): ‘Educating Overseas Students on Cuba’s Isle of Youth’. Interview conducted by Anne Hickling Hudson and Jorge Corona Gonzalez, Havana, 18 July.


Abstracts


Across the globe, education systems have not yet fully rid themselves of the aftermath of colonialism. Neo-colonial education is characterized by multiple crises that stem from entrenched inequality and socio-economic disparities. These serve to perpetuate the global division of labour whereby large, poorly-educated populations in the new nations still provide cheap and low-skilled labour for the globalised industries of the wealthy. Against this background, this paper considers the Cuban model of education and its current reforms as an alternative way of conceptualizing education and its role in national and global development. Since the neo-liberal world economic order does not support the equitable development of education, alter-
natives such as the Cuban model of education are increasingly important to demonstrate that a low-income country can achieve its vision of high-quality education with equity, and at the same time share the benefits of this education with other countries committed to serious educational reform.

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