

[Facilitator's Note: Welcome to the 5th Annual ECOSOC AMR E-Discussion on Education: Closing the Gap. Please find below all contributions received in the third phase focusing on Innovation in Education. The [moderator's message](#) and background information can be found at the [2011 AMR E-discussion website](#). If you encounter any difficulties please contact the facilitator Ms. Kayla Keenan via (mdg@undg.org). Thank you]

Phase Three Questions:

- 1. How can non-state actors (including civil society organizations, faith-based groups, private philanthropies and the private sector) best contribute to the achievement of education and learning for all?**
 - 2. What innovations, including through the use of technology and through new financing arrangements, are needed to make education appropriate for the modern world?**
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Summary of Contributions:

[Felicia Onibon, Change Managers International Network](#)

Ms. Onibon noted that innovations needn't be "outward oriented" through community involvement innovative approaches can be taken to common issues. In parallel to targeting community involvement, exposure to best practices from elsewhere in the world could permit governments to determine where to best target resources for access to innovations and importantly bring out the ideas that are hidden but for the need of stimulation.

[Patricia Miaro, Canadian International Development Agency](#)

Ms. Miaro raised the issue that perhaps our perspective needs to shift in order to embrace innovative practices in education. This could involve a shift in focus from topics and issues to include an analysis of the people involved to focus on accountability and possibly invite more innovation in the work.

[Helen Abadzi, EFA FTI Secretariat](#)

Arguing that cognitive neuroscience can improve education quality and relevance, Ms. Abadzi highlighted some of the challenges to applying cognitive neuroscience in lower-income countries and urged the need to inform donors and stakeholders how this information can benefit their work.

[Dr. R. Shashi Kumar, Bangalore University](#)

Dr. Kumar in his contribution emphasized the benefits of investing in early childhood education and how the differential needs of younger children in education should be used to define the role that technology can play in supporting their development.

[Valentine Mukuria, Macquarie University](#)

Ms. Mukuria focused her contribution to the possibilities of “partners in education” between higher education and research facilities with civil society. Universities are able in particular via such partnerships to assist with the development and implementation of service-learning curricula as an innovative approach to education. Civil society via this relationship can further access and utilise such resources for their programmatic work to ensure that education is appropriate to the modern world in “real-time”.

[Mary-Luce Fiaux Niada, Swiss Development Agency](#)

Ms. Fiaux Niada noting Swiss Development Agency Work in West Africa highlighted that certain context conditions needed improvement in order to further facilitate the effectiveness of non-state actors contributions to education objectives.

[Dr. Hafiz Muhammad Iqbal, University of the Punjab](#)

In the context of shrinking resources, in particular Government allocations, Dr. Iqbal notes that the role of non-state actors is essential to improvements in the quality of education. However, some non-state actors/partners may need orientation to the agenda/objectives of education for all. Further where innovations are based on developing world infrastructure capacities, developing world countries should be provided assistance to adapt or develop indigenous materials/technologies which can be used in the local context.

[Noro Andriamieseza, UNESCO](#)

Ms. Andriamieseza, based on her experience, noted a need to align Government, international organisations and non-state actors policies, strategies and principles. This would enable all parties to work holistically and could open opportunities for non-state actors to contribute through non-formal education and vocational training.

[Dr. Michael Daniel Ambatchew, Consultant](#)

Dr. Ambatchew highlighted the ways that non-state actors could seek to work together through technical capacity-building and/or financial assistance to cover gaps in education coverage. However it is important to emphasise that non-state actors projects should aim to introduce appropriate, applicable and sustainable changes that have visible impact upon education, and whose successes and failures are transparently and accurately reported.

[Madeleine Laming, International Federation of University Women](#)

Ms. Laming identified a key role for non-state actors in lobbying national governments to advocate appropriate action on education. In looking towards innovation as a means to bring education to those who cannot participate traditionally Ms. Laming noted that while ICT can transform ideas about the future, more needs to be done to ensure that alternatives are developed to allow students to access ICT and innovations in remote areas.

[Clinton Robinson, UNESCO](#)

Mr. Robinson in his contribution identified the responsiveness of innovations implementation to scale as conditioned by their local context. Expanding on this Mr. Robinson moved the discussion from innovations in policies and technology and shared that innovation can also extend to systems and focus on the model of education and schooling in relation to the needs it services.

[Dr. Guadalupe Vadillo, UNAM Mexico](#)

Dr. Vadillo reinforced previous contributions focus on the need for integrated partnership approaches to education objectives with all local counterparts and expanded on the role of civil society in questioning current administrative and organizational policies for educational services that concentrate on local needs.

[Shaheen Attiq, Bunyad Foundation](#)

Ms. Attiq shared the example of CSO engagement (Bunyad Foundation) in innovative campaigns via mobile technology targeting illiterate female adolescents.

[David Turner, University Glamorgan](#)

Refuting the perceived contributions that cognitive neuroscience can provide in answer to questions on education, Professor Turner identified a differing approach than focusing on cognitive neuroscience, economics or management as key areas for innovation, but instead shared the need for education systems to innovate their approaches to students so as to reflect the students learning needs.

[Octave Apedo, Caritas Internationalis](#)

Distinguishing education as a participatory process, Mr. Apedo highlighted the need for civil society's involvement in reinforcing links between planning of education and other development instruments through sensitization and outreach.

[Vijitha Eyang, UNICEF-Cameroon](#)

Mr. Eyang raised the issue of approaching private sector interest as an opportunity to advance education needs with new financing arrangements. Sharing examples from Morocco, Pakistan and Cameroon Mr. Eyang demonstrated how private-sector partnering models can support a common cause with positive outcomes.

[Ward Heneveld \(Hewlett Foundation\)](#)

Mr. Heneveld shared his four stages for innovation (start-up, expansion, scaling up and full adoption) and outlined their relationship to each other. He further highlighted the importance of the process of stimulating innovation rather than a focus on the innovation itself.

[Vicky Colbert \(Fundaci3n Escuela Nueva\)](#)

Ms. Colbert advised on the experiences in educational innovations and the concept of social participation as well as the role of collaborative learning. Key lessons learned for educational innovations and systems reform included the need for partnership with the government to ensure coverage and large scale impact as well as with civil society and the private sector to ensure quality and sustainability.

[Bani Dugal \(Baha'I International\)](#)

Ms. Dugal revealed the role that non-state actors can play in redefinition of gender roles and the prominent role that religious communities can play. To further this objective Ms. Dugal shared the Sistema de Aprendizaje Tutorial as an innovative example.

J.R.A Williams (Independent Consultant)

Mr. Williams examined shifting the perspective of innovation from maintaining the status quo to look anew at the basics of educational services and in particular who they serve. This should be done in a way that transforms the system of classrooms, schools, teachers, students, diplomas and curricula into something resembling a system centred on learning that is relevant, appropriate, participatory, flexible, inclusive and protective.

Marie-Claude Allez (ATD Fourth World)

Ms. Allez shared ATD Fourth World's experience with a programme in Madagascar committed to increase capacities in computer technologies for youth with little or no formal education to transition them into productive employment. One of the key lessons learned was the need for focus on the quality of the relationship between trainers, trainees and their families.

Isabel Castillo (Universidad de Ciencias y Artes de Chiapas)

Ms. Castillo discussed the opportunities for partnership between non-state organisations at the local level to lead the innovation.

Moustafa Mohamad Moustafa Wahba (Independent Consultant)

Mr. Wahba shared reforms which if applied to TVET systems could create a framework for workforce innovation.

Laxmi Saxena

Ms. Saxena provided a training methodology which supports the use of e-consultancy as an innovation for the development of human potential.

Guadalupe G de Turner

Ms. Turner noted the need for dialogue between neuroscientists and educators and possibly collaboration on research efforts.

Full Contributions:

Dear Colleagues,

Thank you for this new area of discourse. For me innovation can be brought into Education through what seems old fashioned but may be one of the main options for most developing countries today. This is community participation and involvement in decisions concerning schools within their communities. Past commitments and interest of all key stakeholders were the ace of recorded successes. Today apathy have set into most education systems both from government circles [where inadequate financial provisions have been made to the sector] and with parents who spend more time on other things except the development of their children's education.

Schools management have been left in the hands of uncommitted managers at different levels of school governance. There is absolutely no way considerable progress can be made if there is no major intervention. This major intervention in most African countries like Nigeria could fall within a call for a State of Emergency in the Education sector.

There is need for a systemic advocacy drive to woo community interest in education. There is also need to show case good practices from other parts of the world though videos or electronic/internet connections. Governments should be willing to invest in solar energy for schools to enable community schools access to latest innovations among their peers in other parts of the world. Education becomes uninteresting if it is myopic and centralized around a static community.

Exposure can bring out new ideas and capacities that are innate but hidden for lack of stimulation. Teachers and education managers must begin to see the sector as one of pride and great importance and treat themselves as important contributors to the development of their environment. People see you the way you portray yourself. Education is the bedrock of national development. The custodians of this sector should accord it that high level regard that it deserves.

Best,
Felicia Onibon
Change Managers International Network
Nigeria

Dear Colleagues,

Thank you Mr. Burnett for your very thoughtful launch message. As a matter of fact, it lead me to other questions: How is it that most interesting "innovations" rarely make it to scale? There must be good reasons besides the financing issues, I suppose!

What if our collective analyses have serious flaws regarding "stakeholders"? For example - teachers as a group, their unions, the non-state education community without forgetting obviously ministries of education? We deal in our analyses with "topics" (teaching and learning materials, new technology applied to education, constructions etc.). We deal with issues (girl education, violence in school, marginalized children, decentralization). All of these questions effectively are crucial and have to be dealt with.

As our results are not at the level of our expectations, could it be also appropriate to look at responsibilities and accountability of those who run, in a way or another, the "system" or part of it? If our "lens of analysis" included "people" besides topics and issues, would all our work become more "innovative"?

From my very cold Canada, I send you these thoughts in the hope your comments will enrich the discussion.

With my best regards,

Patricia Miaro
Senior Education Specialist
Thematic and Sectoral Specialists Division
Geographic Programs Branch
Canadian International Development Agency
www.acdi-cida.gc.ca

Dear colleagues,

It's good to 'hear' a dynamic and engaging voice as we start to discuss these issues around innovation.

The answer to the boring, conservative, unimaginative image of education is cognitive neuroscience. It's exciting, highly relevant, and has very innovative applications. These include brain imaging that elucidates how much instruction is needed for reading fluency to be acquired; similar research on how mathematical competencies develop among students; cognitive networks research which helps predict which instructional methods may be more efficient than others.

However, few people know sufficient detail about the educational applications of cognitive neuroscience topics for the lower-income countries. For example, little is known about the visual word form activation that is a prerequisite to reading or the development of the number line in students' minds. Unfortunately these topics are not customarily taught in faculties of education, they are taught in psychology departments. And some education professionals may lack the background to understand these new developments and their implications sufficiently.

To attract more financing it may be useful to explain to donors and other stakeholders how better to benefit from this knowledge. At the EFA FTI Secretariat we constantly monitor the research and produce summaries of relevant topics. Some items appear on our website (currently under construction), and are available upon contact. One book I have written on this topic is the 2006 "Efficient Learning for the Poor".

Best regards,
Helen Abadzi
EFA FTI Secretariat

Dear Colleagues,

Early education is important for all children. And study after study shows that it needn't be prohibitively expensive. We have to thrive hard to take part in providing ample opportunities for both research and developmental facts for proper implementation of the child care.

Role of Technology

The role of technology in early childhood education, birth to age eight, is a controversial topic. Parents and educators have concerns about potential benefits or harm to young children. Critics contend that technology in schools wastes time, money, and childhood itself by speeding up the pace and cutting down on essential learning experiences. Proponents suggest that children should have the advantages that new technologies can offer. Thoughtful observers are concerned that while exciting and potentially valuable things are happening with children and computers, we may not be using these tools in the best ways, or obtaining the results we expect.

Young children have needs that are real and different from those of older children and adolescents. Children from birth to age eight are learning rapidly, using all of their senses and their entire bodies to take in sensations and experience the world around them. The variety of rich experiences that promote early literacy, including conversations with caring adults, storytelling, drawing and painting, and pretend play, is critical in the development of both oral and written language. Every day, playful experiences in print-rich environments expose children to the processes of reading and writing for real purposes. Technology has a place in this environment; language and literacy development are major strengths of technology use with young children through the opportunities and motivation it provides.

Investment

Investments in quality child care and early childhood education do more than pay significant returns to children—our future citizens. They also benefit taxpayers and enhance economic vitality. Economic research from economic studies in dozens of states and counties, and in longitudinal studies spanning 50 years demonstrates that the return on public investment in high quality childhood education is substantial.

ECE Needs

Lack of exercise and obesity are serious problems that need to be addressed during both in-school and out-of-school hours. Time should be allotted for user and learning of computer, watching TV and physical activities according to the age and class level.

The role of early childhood education (ECE) in children's lives, both at the time they participated in it, and later, has been a key focus for the Competent Children, Competent Learners study. At the time the study started in 1992 (with a pilot study), there were some overseas studies showing that ECE experience appeared to benefit children, with attention paid to structural aspects of quality provision such as adult: child ratios, group size, and staff qualifications, but no New Zealand study. Since this study began, more research into the contribution of ECE has also occurred, providing an increasingly robust understanding of the relationship between ECE experience and children's development, and the contextual and research aspects that can influence findings about that relationship. The Competent Children, Competent Learners study makes a useful contribution to this field of research because it is one of the few longitudinal studies to have followed its participants into adolescence.

Best,
Dr. R. Shashi Kumar
Chairman (Board of Examiners)
Principal Researcher: India-EU Trade and Investment Relations
Bangalore University

Dear Colleagues,

Innovation plays a pivotal role in education but often the impact of new innovations are not felt on a global scale for various reasons such as agreement of definitions of innovation and as a result, funding for “innovations”. Patricia Miaro raised a sound point regarding asking the “right questions” about innovation and the “lens” through which we look at innovation in education and how we ask questions about its role in education. Additionally, there is the issue raised by Nicholas Burnett about financing and models of education as “potential impediments” to innovations in education. Often funding will be granted to “educational innovations” based on value assigned to these innovations, and if the value analysis is skewed then so might be the funding. Also, if some educational innovations are proposed but funders do not consider these innovations as aligned to the funders interests, then funding may not be granted.

While this discourse can and might go on for a while, I would like to shift the focus to possibilities of forming “partners in education” between higher education and non-state actors (including civil society organizations, faith-based groups, private philanthropies and the private sector).

Much of my experience has been working with universities in developing and implementing service-learning curricula as innovative approaches to education. The service-learning courses/units I have designed and taught comprise of community-based learning and application of academic theory into practice as central components of the course. To make these courses/units effective, I have sought “partners” for the courses/units from various sectors in the community. These partners have included faith-based groups, private sector and civil society organizations. With these partners, we go through a process of partnership formation, to ensure that the “education goals” of the partnership are mutual (ensuring reciprocity) and sustainable. Essentially, these service-learning courses/units are innovative in the way they incorporate non-state actors into the educational mission of higher education. The partnerships provide a platform for students to learn through real-world/real-life experiences at the various organizational settings of our partners. Students get the opportunity to apply theory into practice at their placements/service-sites (at the partner organization) while learning in practice what really works, what does not work, and why and this information is then discussed during the classes back at university.

Our partners receive the benefit of the university’s support towards achieving their (partners) mission through the work the students do at the organization. Students have reported having learnt so much from service-learning courses whose general learning outcomes include: critical thinking and problem-solving skills, perspective transformation, citizenship, personal and interpersonal development and discipline-specific understanding and application. Our partners, by being the real-world/real-life “partners in education”, have also expressed gratitude for the partnership which has enabled them to fulfill their mission and more importantly, has enabled them to feel that they are part of the process of “educating” and preparing the students for their future roles in society. I believe service-learning curricula are a very effective approach to incorporating and engaging non-state actors in the education

process (to achieve education and learning for all) and at the same time service-learning curricula are an innovative way of making education appropriate for the modern world in “real-time”. Many service-learning courses/units while starting on a more local scale are now expanding and having quite a major impact on the global scale.

Thank you.

Valentine Mukuria, PhD.
Senior Research Assistant,
Faculty of Business and Economics
Macquarie University, Australia

Dear colleagues,

In West Africa, where the Swiss Development Agency for Cooperation provide key support to the education sector, the formal education system cannot reach all children, youth and adults and cannot maintain them in the system due to low quality and low relevance; therefore, high level of drops out and low level of knowledge and competencies. We are all aware of these issues.

In that context, civil society organizations -and also peasant associations, handcrafts federations- have conceived and implemented innovative models of basic education linked with skills adapted to local development, mainly in the non-formal education “sub sector”. These non-state actors can strongly contribute to the education and learning for all if:

- The quality of their experiences is guaranteed through specific standards or criteria
- Their experiences are articulated to the formal system (“passerelles” between the various education offers in order to make lifelong learning concrete)
- The importance of non-formal education is recognized by the State, including in national plan and also benefits from increased financial means from the State
- There is a national strategy that define the responsibilities of the State and the non-state actors in the sector (“stratégie du faire faire”)

In many countries, these conditions need to be improved.

Best Regards,
Mary-Luce Fiaux Niada
Chargée programme Education
Swiss Development Agency

Dear Colleagues

Thanks to the moderator who has beautifully phrased the questions regarding contribution of various stakeholders for achieving education for all and the issue of innovation and use of technology to make education appropriate for the modern world.

In the traditional societies the responsibility for education laid with the family and local community, which were later on taken up by the state government. We have seen that in the recent years, particularly in the developing countries, for example Pakistan, the government's support (financial allocation) is shrinking with the passage of time. Various indicators, including financial allocation during the past few years, rate of enrolment at various levels in government schools etc., can be presented as evidence. In these circumstances, it is imperative that the whole society, various civil society groups and organizations must be involved, not only in making provisions for education for all, but to play their role in improving the quality of education to achieve the goal of developing and egalitarian society. The faith based organizations, including mosques and other religious institutions can play a tremendous role in this regard, but still the Government needs to play a coordinating role. Individuals of these organizations need to be given orientation in order to implement the agenda for achieving education and learning for all.

The use of innovative technology and audio visual aids are crucial for improving learning and achievement by individuals. But, many developing countries do not have the supportive infrastructure to enable the use of innovative technologies which need the use of uninterrupted supply of electrical energy. Developing countries need to be empowered to develop indigenous materials and technologies which can be used in local circumstances.

Lastly, as I mentioned earlier the financial allocation for education in developing countries is being decreased with the passage of time. In majority of these countries, the structure for educational management is highly centralized, rigid and extensive. In order to cut the non-developmental expenditure, and diverting the financial resources to development sector, the centralized system of educational management needs to be decentralized and devolved, empowering the local communities to take the ownership.

Best,
Prof. Dr. Hafiz Muhammad Iqbal
Dean Faculty of Education
Institute of Education and Research
University of the Punjab

Dear Colleagues,

From my view as a UNESCO staff member working in education, non-state actors' contribution to the achievement of education and learning for all cannot be dissociated from government's and /or international organization's contributions. It seems indeed that there is an alignment of their activities, programmes and projects with those of the UN for example.

Based on the above scenario, non-state actors could adjust UN or other policies, strategies and principles on education and learning according to the cultures, needs and priorities of peoples; non-state actors could prepare better conditions for implementing strategies/policies/principles. They can support for example initiatives on the use of local languages in information sessions for concerned actors about key recommendations and principles from strategies/policies. In many countries where orality prevails these sessions are crucial for exchanges and for obtaining beneficiaries' commitment, participation and ownership.

Ideally non-state actors would best contribute to the achievement of education and learning for all by responding to peoples' needs and priorities that are not covered and financed by formal education and learning. People out there know best their realities and this is an area where non-state actors can make a difference. An example of innovation is to support tailor-made education and learning: street children in a country like Madagascar can communicate in foreign languages as they "learn" from foreign tourists whom they hear speak when they go shopping or sightseeing; civil society actors can provide these children with training on tourism and becoming tour-guides, coupled with literacy classes and languages teaching-first language and foreign languages- to develop their knowledge of languages and skills. This is perhaps what we know as "technical and vocational education" in a formal structure; however non state actors can contribute to this type of education without necessarily going through a lengthy procedure.

Thank you.
Ms. Noro Andriamiseza
UNESCO

Dear Colleagues,

Perhaps before addressing what Non-State Actors (NSA) should do, we should first consider what they should not do. NSAs shouldn't steal the thunder from governments' educational achievements. All too often, probably because they have to account for funds used as well as raise new funds, NSAs pretend they are solely responsible for any and all progress made. They may have provided the icing for the cake, the raisins in the cake, or the butter for buttering the pan, but hardly ever the cake itself. The topping up of funds or sprinkling some new funds does not entitle one to claims of ownership, often boldly proclaimed in titles like, "XX Improves the Education in Country Y", causing silent resentment in partners. NSAs should see their role as supporting actors to government rather than as the main contestants for the best actor award.

With these two premises in mind, then how NSAs can contribute to EFA becomes clearer. They can assist governments in implementing their educational plans by providing technical capacity-building and/or financial assistance. They can cover gaps in government educational coverage, especially for disadvantaged groups. They can lessen the load on government educational systems by catering for

those able to pay, and they can experiment with alternative and/or innovative approaches that may light the way for future developments. Numerous praiseworthy NSAs exist that have acted with these parameters, like SIDA whose provision of paper for textbooks and the construction of schools and classrooms have positively propped up the education systems in countries like Ethiopia, and Save the Children Norway's work in Alternative Basic Education Centers that were taken aboard by the Ministry of Education in Ethiopia, but to mention a few.

Carrying on from this perspective, NSAs should not be striving to create islands of excellence that cannot be taken to scale and fizzle out, but rather introduce appropriate, applicable and sustainable changes that have visible impact upon education. A case in point is CCF's "Majet" project in ECCD, where a mother of a relatively well-nourished child in a poor neighborhood with malnourished children would be identified and encouraged to share her culinary skills with other mothers in the area, who would have access to the same ingredients but not the cooking skills.

Using school toilets to produce bio-gas, installing solar panels and computer workstations to introduce schools to modern technology and information as is being done by Link Community Development in several African countries, and training teachers in interactive teaching methods are all wonderful, insofar as they are demanded for by the schools and the awareness, know-how and capacity exist to sustain them. Otherwise, due to the blowing of a single fuse or the testing of the 'fragility' of a solar panel by a farmer's stick, they could be rendered futile. This takes us on to the important need for acknowledging 'Successful failures' as most NSAs do not want to wash their dirty linen in public, though this may prevent others from making the same mistakes. At times, impact may be non-existent, as single projects fail to address the whole system and try to tackle a single symptom rather than the cause. Instead, they only tout their successes on expensive glossy pamphlets covered in donor logos, using precious funds that might have been better spent on students' textbooks.

It is imperative to gain agreement and buy-in of local communities as well as policy-makers, and ensure that information is shared with all in a transparent manner. School grants, allowing schools to use funds as they see fit, and school performance appraisal meetings with communities are definitely steps in the right direction. But education should lead to a change in human behavior and humans need time to changes, at times ages. So let us keep working at innovations, but keep realistic timeframes not to end up as the brunt of a joke by a Nairobi cartoonist who once wrote, "Prados for all by the year 2000!"

Dr. Michael Daniel Ambatchew
Consultant

Dear Colleagues,

Thank you for these thoughtful questions and an opportunity to share my views on them. I have given this a lot of thought while I have been attending the CSW session as an NGO delegate (the International Federation of University Women) and come to the conclusion that our most effective role is to lobby our national governments and advocate appropriate action on education. If the NGO is an international one, then it can also use international fora to highlight educational issues wherever possible. Last night I attended the launch of UN Women - a marvelous achievement, but one that was initially prompted by GEAR - a non-state organisation. We can be active at a local level through advocacy, fundraising and other action such as providing direct assistance, but using our numbers to influence governments is more effective in the long term.

New technology has enormous potential to bring education to people who cannot attend classes in the traditional way, but it needs to be used carefully to be effective. The material delivered via electronic media had to be of good quality and appropriate to the context - computers are not the whole answer. Nevertheless, ICT can be used to transform people's ideas about what is possible for the future - children cannot be what they do not see and ICT allows them to see much further. More needs to be done to ensure that alternatives are developed that will allow people to use new equipment in remote areas: we have had solar powered calculators for years so why is it so hard to find a solar powered laptop?

Best,
Madeleine Laming
International Federation of University Women

Dear Colleagues,

Thanks to Nick Burnett for his provocative words of introduction: boring, unimaginative, etc.! I tend to agree... let me explain why.

I would like first, however, to comment on Nick's introduction, and on the formulation of one of the question, before making a broader remark:

The introduction allows that there are many useful innovations out there, but that they are on too small a scale, not global. The question is: why do they take place and are effective on a small scale? I believe the answer has to do with the fact that the innovations are responding to context. Education is a socially and culturally situated process, through which values are communicated, future generations socialised and patterns of interaction established. Even though goals such as the EFA goals are global, their implementation takes place in particular contexts. Innovations may be promoted on a large scale, but their take-up, relevance and effectiveness will be conditioned by context.

The second of the two questions posed is based on a large assumption about the purpose and nature of education, namely that it should be 'appropriate for the modern world'. At a certain level, this is indisputable, but it is only a part of the direction of change that education might, and should, take. It is quite right that education ought to enable access to new horizons and knowledge, to broad networks and fresh opportunities. However, at the same time, education is about understanding the environment in which we live, applying cognitive skills and knowledge to the daily and the familiar – indeed this would seem to be the basis for grappling with new and diverse kinds of knowledge. While there is much debate about how, for example, the educational opportunities of ICTs may be better grasped, they remain a tool for learning, and their usefulness will be seen not only in rendering education more appropriate for the modern world, but in how far we (as learners) are able to reach our full potential within – and beyond – our own environment. Much education does not do that, particularly in parts of the world where patterns of learning/education take little or no account of local culture and knowledge.

A comment on what might constitute innovation: in many fields, innovation occurs when ideas go beyond the paths trodden hitherto, when questions about the current understandings and systems are asked. In education, it seems to me that we need to ask some questions about the system as such, and particularly whether the almost universal model of education as schooling is serving well in all

circumstances. Promising innovations seeking to respond to diverse realities may indeed be squeezed out by the system. There are contexts and population groups which are manifestly not well served by schooling, and these merit reflection on how quality learning and effective socialisation in the local context might best be structured. In places, further investment in schooling might be the best way forward, in other contexts, different patterns may be adopted and adapted. This is largely uncharted (but not new) territory – but innovations always lie beyond and outside where we are now.

How might civil society organizations contribute to innovation? Precisely by being flexible enough and by analyzing context sufficiently closely to try new approaches – then, to return to Nick’s point about scale, the question is whether the principles and lessons learned (not the programmes as such) can be applied more widely... and possibly change the system. That would be real innovation!

Thank you for the opportunity for this debate.

Clinton Robinson
Senior Programme Specialist
Division of Basic Education
UNESCO

Dear colleagues,

The contributions shared include important factors in the process of achieving learning for all. The idea that there must be congruency among the diverse inputs of the governmental and societal agents is central to the establishment of successful educational policies.

Probably one of the key variables is the inclusion of research findings concerning what makes solid learning happen. There is an array of knowledge that in general has not been included in the different elements of the educational system: curriculum, standards, textbooks and other resources, school and class management, teacher training, teaching performance. This is especially true in developing countries. All or most children are taught but few of them learn.

Civil society organizations have questioned both the relevancy and the potential motivation of contents and educational methods that most schools at present use. A sound conclusion has been: most children would not attend school if they knew better. Probably they do because that is what they are supposed to do and they think the limited and uninteresting contents they study and the poor teaching skills of many teachers are the only option.

Gifted and talented learners provide insight to the boring, slow pace and repetitive curriculum many schools offer when they refuse to go to school or cause trouble in the classroom declaring that they would be learning a lot more on their own. These students question the whole educational system and societal groups are often the ones that hear the message and put forward great ideas.

A couple of years ago, in a “desirable futures” exercise, several Mexican educators came up with interesting proposals: from the abolition of educational levels to the placement of kids in learning groups according to maturational levels in each emerging skill to the complete participation of the community in the creation of reality-based learning activities. These ideas ignited the desire to learn in

all of us who read them, in perfect contrast with what is evoked by the drills and lectures that the majority of our schools propose.

Best regards,

Dr. Guadalupe Vadillo
Coordinator / Science and Math
UNAM's Virtual High School
Mexico

Dear Colleagues,

Developing countries must involve Civil Society for EFA objectives, this is especially essential for those who slip through the cracks, including the disabled, minorities, rural folk, the poorest of the poor. Creating an atmosphere conducive for them to learn is a forte of NGO's. Their key asset can be to act as a conduit between the Government/ public sector & communities. Poverty has its own priorities; with rising oil prices & the global recession...the biggest sufferers are the poor. And, in bureaucracy for most developing countries, where regular jobs are quite scarce, corruption prevails. Civil Society must be involved for more transparency in the development sector, to make communities air out their needs & become partners of EFA. More often than not the needs of the rural families are usurped by their urban cousins.

From our perspective at the country level, technology is most helpful to promote EFA- a first step for MDG's. In Pakistan the Bunyad Foundation started a small programme with UNESCO's support, assisting adolescent girls to gain literacy with the help of mobile phones...and it worked! Concentration of the big funders, like World Bank, UNICEF etc. concentrate only of young children, & there is hardly any concentration of older children/adolescents. In Pakistan most districts have less than 25 % female literacy in the rural areas. With 6 months of concentrated focus Bunyad was able to transition illiterate female girls towards literacy with the help of mobile phones. Apathy turned into action. Even for rural teachers and their learners. Following on from our experience we have also found that radio & TV can have a huge impact by up-dating the vision & knowledge base of these learners by sharing up-dated information.

Best,
Shaheen Attiq
Bunyad Foundation

Dear Colleagues,

I remained quiet in the face of the assumption stated in the Phase 1 question that “the quality of teaching is critical to students’ learning”, and all that implies for not radically rethinking the place of the learner in education.

I kept my peace when the main thrust of the argument in Phase 2 seemed to be that we have good policies, but they are not implemented properly (mostly because teachers are not properly trained and held to account).

But it is not possible to remain silent when Helen Abadzi claims that, “The answer to the boring, conservative, unimaginative image of education is cognitive neuroscience”. Neuroscience is not, and never will be, the answer to any educationally important questions.

Ms. Abadzi devotes Chapter 5 of her book to “Literacy Acquisition and the Biology of Reading”. Maryanne Wolf, an expert on reading says, “No one was ever born to read. Human beings are genetically programmed to do a variety of functions, including learning to speak, using a highly sophisticated set of operations that contribute to the survival and flourishing of our species. But learning to read is not part of our genetic equipment” (Wolf, 2008: 184) The reason why Wolf can assert this so unequivocally is that reading has developed only in the last 5000 years or so, a timescale that is as the blinking of an eye against that required for biological evolution. So we can be sure that anybody who asserts that there is a “biology of reading” is peddling pure hokum.

In the Appendix of her book, Ms. Abadzi repeats the old fallacy that, “Our modern skulls house a stone age mind” (p.227). However I am of the belief that my mind is furnished with a range of capabilities, from differential calculus to the special theory of relativity, and including a few computer programming languages, that could not have been imagined even a few centuries ago. I own up to having a Stone Age brain, or one that is physically indistinguishable from our Stone Age ancestors, but my mind, like yours, is a very different matter.

Many grandiose claims are made for neuroscience and the contribution that it can make to education. For example, it is claimed that knowing that an expert (reader / calculator / musician) uses different parts of the brain than a novice can help us develop educational programmes to help novices develop their skills. However, because the expert generally has a great wealth of experience, they are usually performing a different act from a novice. Imagine asking a novice and an expert to calculate 6 times 8; the expert will simply recall the answer, while the novice may be counting on their fingers. Knowing what a novice and an expert do cannot help us to teach a novice to become an expert. And knowing which part of the brain is engaged by either adds nothing at all to our development of curricula.

There is, however, one aspect of neuroscience that is of great relevance to education; if we let the neuroscience industry siphon off research resources to pay for glossy scanning technology, the field of education will be even more impoverished than it is today.

There are many exogenous discourses that impinge upon education, among which neuroscience is one, but economics is another, and management a third. Collectively they promote the idea that efficiency and time-on-task are crucial for education, that education can be ‘delivered’, that it will meet the needs of the economy, and that it can be improved by setting targets and outcomes. Education will not be much improved until we take positive steps to give learners control over their own learning, expect teachers to be professionals who are capable of making thoughtful and humane decisions about education, and prepare them accordingly. We need to stop thinking of teachers as teaching machines who deliver a curriculum that covers what we think children need to know, where it is a race against time to cram facts into their young heads. We need education systems that provide second and third chances, and allow plenty of time off task.

In short we need a play-based curriculum, because we all learn best when we are playing – doing something that we have chosen for ourselves. Schools need to be places where everybody involved,

whether pupils, teachers, administrators of cleaners have an opportunity to express themselves creatively through music, art, science, mathematics, language, teaching or cleaning.

It is one of the ironies of the post-industrial, knowledge economy that schools are the last bastion of the production-line factory system of the nineteenth century.

David Turner
Professor of Education
University of Glamorgan
And World Education Fellowship
Trustee and Treasurer

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Dear Colleagues,

Education is a powerful tool in our human societies. Considering the geographical realities and values of the world, education systems are being carried out in rural and urban environments, in poor and rich countries, with different educationally material possibilities available. At its foundation the achievement of education and learning for all is a participatory project. A systematic review needs to be undertaken which considers the economic, social, political and cultural background of people and their communities. Reinforcing links between planning of education and other development instruments such as PRSPs for reducing extreme poverty is imperative in developing countries. Civil society is to be constantly sensitized on the importance of this. I esteem that it is necessary to consider this when people and communities contribute to the achievement of education and lifelong learning for all.

Best regards.
Octave Apedo
Caritas Internationalis

Dear Colleagues,

I have read with interest the dialogue and wanted to weigh in with some observations. While it's useful to look holistically at the world of non-state actors, my comment relates directly to the private sector's contribution to education goals.

During my academic career, I was quick to align with university and civil-society support for the education cause, and highly suspect of government, multilateral and private sector interest in the sector. That era of skepticism ended when I moved to USAID and had the opportunity to witness first-hand innovative private-sector partnering models spanning North Africa to Asia. Morocco's BMCE Bank's model involved a partnership with the Ministry of Education to construct primary schools in the most

under-served regions of the country. It was a carefully brokered partnership that balanced differing agendas—humanitarian interest, government ownership, shareholder anxiety, private sector visibility—but with an end result that provided Morocco’s most vulnerable children with new avenues of access to primary education. The Pakistan education model was different. It was a private sector partnership for youth which began with a group of business men in Lahore on a mission to address the needs of growing numbers of out of school, disenfranchised youth. Their recipe for success was a program that included voluntary mentoring and coaching support (put in by the business leaders), contributions of zakat (tithe) to the common cause, and workforce training. Program success was determined by gainful employment.

My last example takes me to UNICEF and a great education partnership we have in Cameroon with MTN, one of the largest cell-phone providers in the country. For the past few years they partnered with us in our fight for better water and sanitation in Cameroon’s schools. And they stuck with us even with all the bureaucratic hurdles that we put them through. And late last year when we reached out to them and pointed out the glaring gender disparities in four of Cameroon’s most marginalized regions, they shifted course to join the cause. Not only do they provide infrastructure and scholarships for girls, refugees and other vulnerable populations, they are our partners when it comes to sending national text messages for our back to school and hand-washing campaigns, during our recent cholera outbreak they were our supporters in “our schools without cholera” campaign. No we don’t have MTN’s logo on our primary school textbooks, so we are not naïve about profit maximization agendas in play, but the relationship has been carefully cultivated, managed and Cameroon’s most vulnerable children are the ultimate beneficiaries.

We’re already well into the 21st century; we have to be realistic about the current funding landscape. It’s an era of escalating education needs, scarce resources and shrinking donor pots. New financing arrangements offered by the private sector if carefully cultivated offer one part of the solution. Let’s be open to those opportunities.

Best regards,
Vijitha Eyang
Chief, Education
UNICEF Cameroon

Dear Colleagues,

Below is a summary chart of the stages in the development of an education innovation that I devised some time ago.

Stages of Development of an Education Innovation

	START-UP STAGE	EXPANSION STAGE	SCALING STAGE	FULL ADOPTION STAGE
Who's Responsible?	Creative Entrepreneur or local organization as an implementer (Mom & Pop shop)	Entrepreneur with some professional managers (Mom & Pop shop with staff)	Entrepreneur with lots of managers plus an external impact evaluator	Government and others
What is there in practice?	Activities on a small scale tried and revised frequently	Larger universe with some activities fixed and others being perfected	Full model implemented with formal evaluation	<ul style="list-style-type: none"> • Policies to support adoption • A detailed program design and implementation plan • Implementation
Who are the beneficiaries?	Children in one to a few schools and/or communities	Numerous communities, more learners	Enough learners and locations to attract the system's notice	All communities and learners for that government's jurisdiction
Challenges (beyond financing)	<ol style="list-style-type: none"> 1. Putting ideas into practice, while open to significant changes 2. Maintaining the original vision while adapting to reality 	<ol style="list-style-type: none"> 1. Management and administration of a complex operation 2. Making sure everyone understands the vision and the practice and believes in it (knowledge, skills and attitudes) 	<ol style="list-style-type: none"> 1. Balancing the needs of practice and the needs of rigorous research design 2. Continuing growth in management, administration, and staff development 3. Responding to outside negative critiques 	<ol style="list-style-type: none"> 1. Maintaining the spirit of the innovation 2. Resist government tendency to simplify and formalize the model
Current Funding Sources	Self plus friends	Small donors, parent INGO's	QEDC, World Bank, Others?	Governments with donor support
Possible Future Funding Sources	An innovation fund?	Additional funders: INGOs, Operating foundations, etc.	Additional funders: Larger foundations, World Bank; bi-laterals	Government with declining donor support: public funds; donors



The sequence is divided roughly into four stages: start-up, expansion, scaling up, and full adoption. Planners like me have for decades focused on designing and implementing system-wide reforms that start at the full-adoption stage. Most implementations have failed. More recently, we have looked for successful innovations and concepts developed by non-governmental organizations that can be scaled up to full adoption through transfer to new settings. This approach hasn't been much more successful than large-scale reforms, so we've turned more recently to building evidence (through impact evaluations) and depending on it for making scaling up possible. I haven't seen this added evidence having had much impact yet. Incentives to innovate at the small scale with risk capital from donors with the prospect (and mechanisms) for helping successful start-ups expand do not exist. The IT incentives structure that has supported Apple, Google, and Facebook in their development has not been thought about carefully enough to have an impact on how we stimulate innovation in Education. What if governments and donors offered risk capital allowing for a 8 or 9 out of 10 failure rate for start-up innovations (and simple evaluations of them) with another pot of funding available for the successful innovators who want to expand and eventually scale up,?

On the other hand, we all ought to understand by now that the ecology of schooling is such that each school's unique environment requires careful close management of learning outcomes with the ability to adapt whenever and wherever learning is not occurring as expected. I realized this school-level need many years ago when I served on an evaluation of integrated pest management (IPM) for rice cultivation in Southeast Asia. The major pest for rice is a bug called the stem-borer, and its main predator is the spider. In those days IPM required that each farmer have a one-meter-square plot in each of his rice fields, no matter how small, where he kept track of the stem-borer/spider ratio. Whenever the ratio gets above the prescribed level, the farmer sprays that field, and only that field. The next field which is usually just over the dike between them is not touched! The farmer needs to monitor each field regularly and when there is a problem respond as needed in that field. How well do school heads keep track of learning problems in their schools and how well do inspectors/supervisors do this for each of the schools that they supervise. Certainly, the responses in education at the school level are more complicated than in rice cultivation, but I believe there is creativity and ability to innovate in every school that has not been tapped because education systems do not trust the school-level personnel to respond on behalf of their children. If given that trust, coupled with clear expectations for learning and accountability for action, innovation will expand in each school. Does anyone know of mechanisms that respond to this need for using learning outcomes to stimulate innovation in individual schools?

You may note that in both of these comments, it's the process for stimulating innovation that's important, not the innovation itself. It is time that the international community in education development transferred our attention from creating innovations that will produce learning to enabling people who work directly with learners to devise and implement their own innovations.

Best,
Ward Heneveld
Hewlett Foundation

Dear Colleagues,

After years of working with governments promoting access and quality in low income schools, we have two important lessons learned: we need to work with governments to ensure coverage and large scale impact; but we need civil society and the private sector to ensure quality and sustainability.

In the case of the Escuela Nueva model, a transformative pedagogy and educational innovation in basic education that we have developed and implemented not only in Colombia but in other countries, specifically in the LAC region, we have learned that it is crucial to have private public partnerships in place. The concept of “social participation” is key in relation to the sustainability of educational innovations. Educational innovations fade and are vulnerable to political and administrative changes and we have to not only introduce innovations within the system but also ensure that they are sustained.

According to the World Bank, (Social Participation Manual), “Participation is the process by which people share control of the decisions on activities, programs or institutions that affects their lives.” The evidence of studies on participation has demonstrated that it enhances quality, sustainability and impact. In the case of Escuela Nueva, the concept of social participation is the cross cutting dimension to all the different components of the system. This aspect has permitted it to be one of the longest bottom up innovations of the developing world.

Once Escuela Nueva became a national policy, reaching more than 20,000 rural schools in Colombia, we had to partner with private organizations like the Coffee Growers Association to support its sustainability. Innovations fade within bureaucracies. We also had to create an NGO, the Fundacion Escuela Nueva to promote and maintain its quality, and to continue innovating. Education is so crucial for society that it should not only be in the hands of governments. It is a responsibility of the entire society. (World Conference in Education Jomtien)

Although it is urgent to invest in school infrastructure, teacher recruitment and antipoverty strategies, it is necessary to focus more on pedagogical renovation and to improve the way instructions are delivered. More than half of the money is wasted in poor ineffective teaching methods, inefficient training of teachers and lack of reliable learning materials coherent with teaching training strategies, renovated teaching practices and innovative learning methodologies.

In order to improve education quality and learning achievement and I would like to highlight the importance of promoting educational approaches and systems that emphasize creative and collaborative knowledge builders as a major challenge for 21st century education. (This is the essence of Escuela Nueva).

The Director of the Interdisciplinary Research Center of Paris, Francois Taddei presented a report to OECD countries in 2009, "Training creative and collaborative knowledge builders: a major challenge for 21st Century Education." In this document the author analyses how educational systems are evolving slower than the rest of society and traditional teacher centered education is not organized to promote creativity and the ability to update knowledge. Moreover he argues that only in some countries, which allow the emergence of new education paradigms, can foster creativity and experimenting with new educational schemes, developing creative environment and programs and disseminating the best educational practices, those are the ones that are having results. Changes in education are not rapid

enough and schools have changed less than other components of our societies, and academic content and pedagogy have changed only minimally. (Everything has changed except the classroom!)

In relation to 21st century skills, the meta-competencies of learning to learn, learning how to synthesize information, testing knowledge, learning to collaborate, to criticize, to accept criticism, to communicate ideas clearly using all tools of the day, to take initiatives, to dare to take risks and how to be creative, should be part of any curriculum. In this regard, Taddei states that unless there is a systemic view where all the above meta-competencies are developed, education cannot encompass the exponential increase in knowledge. Education should allow children to adapt to the environment that is changing faster and faster.

Collaborative knowledge building has demonstrated advantages since students have changed from that of clients to that of participants. There is a shift from a teacher directed approach to more student centered learning. A new role of the teacher, not as a transmitter of facts but as a facilitator should be promoted.

Finally, there are solutions, pioneering schools have demonstrated results. As Karin Chenoveth cites in [It is Being Done](#), “we know what works in education, the research is prolific, amazingly then, the question today is not what works but why we do not implement what we know works in all schools for kids.”

In relation to strengthening social justice, equity and reaching the marginalized, I would like to highlight the importance of mentioning the issue of multi-grade education. This is due to the fact that learning and teaching in multi-grade schools and classes is extensive in a wide range of countries. According to Angela Little in “Education for All and Multi-grade Teaching”, the EFA Framework for Action identifies primary schools as the institutional means for the achievement of two important goals: 1) access to free and compulsory education of good quality education specially for girls, children in difficult circumstances and those belonging to ethnic minorities and 2) improving all aspects of quality of education.

According to Little “many of the current shortfalls in achievement of the EFA goals are found among those communities who live at margins of societies, and who participate in the margins of the formal education system. At many of these margins, schools either do not exist at all, or where they do, they often involve multi-grade teaching. These schools are largely invisible to those who plan, manage and fund education systems. Yet they persist. Little maintains that “a conservative estimate of 30% of children, currently in multi-grade classes in all countries yield a world total of 192.45 million. Add this to say, 50% of the currently out of school children for whom opportunities to learn are most likely to happen in a multi-grade class. This generates an additional 52 million children. This totals a 244.45 million children world-wide for whom a multi-graded pedagogy is likely to be the one through which they learn in primary school. For the developing countries alone the total estimate is 218.60 million

The significance of multi-graded schooling for EFA is greater in developing than in industrialized countries. Although learning and teaching in multi-grade settings is widespread in many countries with well-developed education systems, “for children to learn effectively in multi-grade environments, teachers need to be well trained, well-resourced and hold positive attitudes to multi-grade teaching. However, many teachers in multi-grade environments are either untrained or trained in mono-grade pedagogy, have few if any teaching resources and regard the multi-grade classroom as the poor cousin of the better resourced mono-grade classroom found in large, urban schools and staffed by trained teachers. “

Most EFA goals are predicated on a mono-grade classroom and although multi-grade teaching is often considered to be a second class education, in some cases necessity has been transformed into a positive pedagogy. For millions of children worldwide the only type of schooling to which they will gain access, will be multi-grade. Areas experiencing conflict offer limited learning opportunities for children and, where opportunities do exist, the arrangements are multi-graded. The thesis Angela Little poses is that multi-grade schooling can make a significant contribution to the EFA goals of access and quality.

Finally, I would like to highlight the importance of articulating the role of collaborative learning, “a new learning paradigm”, and the impact on peaceful behavior. Education for peace should be approached not only as content but as participatory learning. There is significant evidence demonstrating the impact of collaborative learning in reducing stereotypes and prejudice, strengthening self-esteem, promoting gender equity and handling diversity in the classroom.

Vicky Colbert
Founder and Director
Fundaciòn Escuela Nueva
Colombia

Dear Colleagues,

Increasing women’s access to education and learning is a goal of development initiatives around the world, for research has consistently associated women’s education with a host of desirable social outcomes. Yet participation and access are becoming increasingly understood as mere way stations on the path to the more profound goal of empowerment, defined as the capacity to affect one’s own well-being and execute strategic life choices.

Achieving empowerment though the agency of education hinges on the process by which educational systems can transform dominant values and social patterns of gender inequality. Put simply, schools are often the site of “doing,” rather than “undoing” gender roles. Educational initiatives often struggle to address change at societal levels, and all too often educational systems reflect prevailing social prejudices, and reproduce, rather than challenge, the status quo.

Here, then, is a critical point of leverage for non-state actors. Such groups, religious communities preeminent among them, are uniquely positioned to effect a true redefinition of gender roles, establishing a holistic understanding (among men as well as women) that more accurately reflects the full range of human talents and capacities. We offer the experience of the Sistema de Aprendizaje Tutorial (SAT) as one step in this direction.

SAT is a secondary education program, based in Columbia but offered throughout Central America and parts of sub-Saharan Africa, which fosters reorientation by encouraging students to rethink gender relations in their everyday lives. The program features many notable features, from a tutor/study circle format to an emphasis on synthesizing the intellectual and spiritual elements of human existence, but its more transformative innovations in the realm of gender equality include:

1. Gender is mainstreamed into the curriculum, providing explicit material and opportunities for discussion in a range of subject areas including technology mathematics, science, language and communication.
2. Gender is linked with the broader goal of social justice. "One of the reasons we insist on relating the status of women with the principles of justice," officials state in one of the program's textbooks, "is that we are not satisfied to see some women liberated from that form of oppression that is based on sex only to join the institutions of oppression operating in the context of class, race, nationality, and political and economic power."
3. Students engage in reflection, dialogue, and debate. Because community service is central to the program, the sphere of dialogue on gender issues naturally expands to include friends, family, and neighbors, sometimes coming to influence local governing structures and business communities as well.
4. Teachers are given the opportunity to reflect critically on their understanding of gender in professional development sessions. Ongoing reflection not only fosters improvement in technique and approach, it prompts the continued evolution of teachers' own understandings of gender and its role in education and society at large.
5. It emphasizes that transforming gender roles requires change among individuals and in social structures such as the family. Text-based narratives and ongoing discussion begin a process of critical reflection on the family as a basic structure of society requiring profound transformation in order to reflect gender equality – a reality demonstrated time and again by research on patterns of action and interaction in the domestic sphere.

Best Regards,
Bani Dugal
Baha'i International

Dear Colleagues,

Like Professor Turner I have held back from comment on the discussions. But his and Dr. Robinson's contribution have inspired me to come to their support and add my thoughts based on thirty years working in education and development in more than twenty countries.

Unimaginative, Boring, Conservative...

Of course they are! They have to be to succeed as they have so well over the last 200 hundred years in maintaining the status quo, preparing the workforce for acquiescent labour, and convincing the people that learning to do things like look after themselves is not worth the effort, and is boring compared to shopping for products that will look after them and make a fat profit for someone else.

The best innovation would be true innovation. Let us look anew at the basics of our education systems. What are they for? What do they serve?

Let us look anew at our models of education? Why schools? Who would ever come up with the universal model of a school if they were set the task of devising a system to encourage learning rather than obedience? Why an unfulfillable demand for secondary and tertiary education? Is it not because people want to become more educated but rather because they need a foothold on the mountain of

profit that the modern masters label as 'job', and are misled in to believing that certificates and degrees with give them one.

Let's look anew at what is 'appropriate for the modern world'. This modern world is one where the existence of climate change, energy depletion and nuclear weapons foretell a bleak future for humankind with a resonance into every aspect of life. Our education and learning can continue to be directed at marshaling the armies and firepower needed to give advantage to our nation state or blocks in the scramble for diminishing resources, while ensuring the provision of enough propaganda in the form of corporate controlled media and entertainment and advertising to ensure that the battle is not compromised. Or it can belatedly begin to address the needs of individuals and communities to understand the realities of the world and help them devise ways of working together to cope with them.

Was Plato's assertion that education is the business of the state, except its funding? Using philanthropy to support education is not innovation. It is reversion. Almost all American Ivy League universities and huge swathes of schooling around the world were inaugurated by industrialists and religions. Were the Cornells, Stanford's, Rockefeller's disinterested or were they seeking to perpetuate a system that had served their interests and prejudices so well? Catholic schools, Muslim madrassa's and Confucian shensindo were founded for religious, not educational purposes. As other contributors have observed, the challenge is not to get more involvement from the rich and religious, it is to get genuine participation from children, families, teachers and their communities in the planning and delivery of education

Innovation in education means primarily the transformation of the system of classrooms, schools, teachers, students, diplomas, curriculum into something resembling a system centred on learning that is relevant, appropriate, participatory, flexible, inclusive and protective. The purpose of that education is clearly stated in the UN Convention on the Rights of the Child: to develop each child's personality, talents and abilities to the fullest. It should encourage children to respect others, human rights and their own and other cultures. It should also help them learn to live peacefully, protect the environment and respect other people. How very very far from that is the dreary vision of schooling I have witnessed in classrooms from Wales to Fiji and points in between.

J.R.A Williams
Independent Consultant

Dear Colleagues,

The two questions under current review relate to the innovations needed to make education appropriate for the modern world, and to the contributions from non-state actors that could achieve education and learning for all. ATD Fourth World integrates both of these concerns in its various actions, in particular when promoting access to knowledge, culture and education.

As an example of this commitment, the ATD Fourth World has launched a project in Madagascar directed towards young people aged 16 to 23. The ATD Fourth World had been active in Antananarivo for a long time, with the peoples of the Antohoma Dinika district and its Ikopa discharge, and had gained enough confidence to start a dialogue with young people. This dialogue, which demonstrated their interest in computer technologies, was at the origin of the project.

ATD Fourth World decided to offer these young people new information technologies training. The objective was not only to enable young people that had received little or no school education, to develop the necessary technology skills to find a job, but also to make them aware of the actions required on their part to achieve their goals. The project started at the end of 2006 and was made possible through the mobilization of various partners: an NGO provided 20 computers, and several public and private partners supplied financial and technical equipment and support, including free broadband internet connection for 2 years in 6 different locations.

These young people are trained to set up objectives for their future and to search for internships and permanent jobs. Several private partners have offered internship programs, one of them including the help of a coach. For example, in January 2009, some 20 young people, 11 of them living in the Andramiarana discharge, were offered, after an initial training session within ATD Fourth World premises, a two month qualification training that would give them access to a professional certificate, recognized by the State authorities, for the use of Microsoft Office software.

ATD Fourth World has developed a special educational approach of non-abandonment which helps young people to stay the course to achieve their goals. Most of them have received little or no school education: the average for the first class in training was 2.3 years of school attendance; it went down to 1.3 years for the second class in training. Consequently, attendance to training sessions becomes a real challenge, especially during the initial year, and requires a very careful supervision from trainers in monitoring absenteeism and anticipating family problems; trainers need in particular to frequently visit trainee's homes and set up real partnerships with their parents, using such instruments as correspondence bulletins.

At the inception of their training sessions, most of these young people have little confidence in their own capacities and pay no respect to the group which they now belong. Consequently, principles of solidarity and mutual assistance need to be considered as an integral part of their training. More specifically, problems arising from different speeds in learning or from rivalries between top performers and low performers, which increase the risk of dropouts, are frequently discussed between trainers and training groups in order to restore confidence. Each trainee receives from ATD Fourth World a 1,000 grant, to compensate for shortfalls in family earnings, as most of these young people participate actively in the financial condition of their families.

Today, ATD Fourth World has decided to step up its project and address not only initial computer training but also professional new technologies training. Trainers have designed with several partners a new program which complements the initiation two years program, and offers graduating training which facilitates access to professional internships and real jobs. ATD Fourth World in Madagascar developed in January 2011 a new partnership with Agence Française de Développement in order to promote education actions with other NGOs. Such actions which currently relate to the fields of plumbing and catering/cooking, will host between 60 and 80 young people in the coming four years.

All these projects depend upon the quality of the relationship between trainers, trainees and their families, who rely on solid trust and permanent dialogue. These qualities need to permeate not only the direct participants to these projects, but also society as a whole, which shall provide a level of recognition high enough to enable these young people to get a job.

Marie-Claude Allez

International Movement ATD Fourth World - UNESCO Representative

Dear Colleagues,

It is an honor to be part of this Discussion. I have followed closely phases one and two and found myself struggling to collaborate with ideas that could be implemented at the world wide level. Every country is so different in the way they run their education system and even within countries there are differences. The same is true with the role that non-state actors play in every country. This third phase discussion gave me an insight that I would like to share with you.

Up to this moment education has been a tool to mold people according to either government styles, industry needs or religious trends. We are at a moment in the history of the planet that education should be a tool to allow people to develop their own creativity and critical thinking in such a way that they can find their own way to face and survive in the world we are leaving them. As Einstein stated it so clearly "we can't solve problems by using the same kind of thinking we used when we created them". We are all a product of an education system that gave rise to the environmental, social and economic crisis we live in. (Sir Ken

Robinson <http://www.youtube.com/watch?v=mCbDS4hSa0s&feature=related>)

I agree with Dr. Ambatchew about the not very wise way non state actors have used their energy and their money but, on the other hand, we cannot deny that non state actors are the ones that have triggered changes in the past. Rome Club triggering the sustainable development trend, comes to mind. I do not think they should only support the government since it is clear that government education is not working in most countries! Not to move people towards sustainable development.

I think that non state organizations could play a key role to help solve the current education crisis and the main innovation will be that education should be lead by a council of non-state and state organizations in every country. Modern technology should support these councils. Initially partnerships should be encouraged.

Perhaps non state organizations could help to create another "Rome Club" that will trigger the movement of education towards allowing human beings to develop their full potential and to free themselves of the prison that Einstein describes so eloquently "A human being is a part of a whole, called by us universe, a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest... a kind or optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty"

At the newly created Earth Sciences College at UNICACH we are trying to develop partnerships that will help to bring sustainability to the university classroom, not adding solar panels or water saving devices or resources but pedagogies and strategies that sustain knowledge in the mind of the students, and that will help them develop their critical thinking and nourish their sensibility to all living creatures.

Saludos from Chiapa's mountains

Isabel Castillo,
Professor and College Board Member Advisor
Universidad de Ciencias y Artes de Chiapas (UNICACH), Mexico

Dear Colleagues,

From my moderate point of view, if a TVET System is reformed to apply the following options and possibilities, it will surely put in place a framework for making workforce innovation and excellence happen:

1. Setting national TVET policies and customizing TVET system design
2. Integrating the TVET into the socio- economic policies for Employment & Human Resources Development
3. Integrating the TVET into the educational policies
4. Establishing of Enterprises and Training Providers Partnerships ETPPs
5. Building quality and demand oriented workforce (quality and demand based TVET)
6. Establishing labour vocational qualifications and occupational skill standards
7. Promoting talented workforce through “modularized” off-the-job and on-the-job learning and training to ensure that TVET is elastic and fluid rather than rigid and standardized.
8. Assuring that the environment in which the learner is trained is a replica of the environment in which he / she must subsequently work.
9. Assuring that the training jobs are carried on in the same way with the same operations, the same tools and the same machines as in the occupation itself
10. Continuous professional development of instructors / trainers / teachers
11. Keeping pace with training technological advancements and using technology appropriates in TVET
12. Encouraging Continuing TVET as continuing education and training, within the framework of Lifelong Learning
13. Improvement of collaboration between Higher Education HE and TVET
14. Creation a TVET system that is: Effective, Efficient, Relevant, Flexible, Modular Respondent, Accessible, Affordable, Accountable, Sustainable, and which fulfills its general obligations towards the society
15. Continuously investing and re-allocating financial and human resources in the TVET System
16. Engaging community and industry as significant players in TVET

Best regards.

Eng. Moustafa Mohamed Moustafa Wahba
Competency Assurance & TVET Consultant

Dear Colleagues,

Education & Training should be seen as a process for development of human potential. Broad objectives of this methodology are to understand that education is a process, not as a product. Another objective is also to generate a definition of education which defines a 'good' or 'quality' education. This method is geared towards devising a definition of education as a process to develop social, mental creative and ethical potential of human being.

There are certain techniques used for education of teachers. Five Indian states of Delhi, Madhya Pradesh, Rajasthan, Orissa and Tamil Nadu are utilizing e-consultancy and certain applied research

programs for teachers. These programs include group discussions, demonstration of presentation skill and practices adopted while applying. An exercise can be conducted, which uses all these procedures.

A training methodology for doing so is outlined below.

1. Discover your co-trainees.

- a. Experience, analysis of experience and knowledge generation
- b. Modeling and practice
- c. Demonstrations
- d. Presentation by experts, followed by a question-Answer session

2. Group Discussions:

Group Discussions form a very integral part of training. We outline one such process that is designed to achieve the results effectively. The training can be initiated by:

- a. Informing the participants and guests about the organization responsible for the training.
- b. Articulating the training objectives.
- c. Narrating the training techniques which are going to be used for the training
- d. Making participants interact and know one another as co-trainees.
- e. Making them feel at home and relaxed.

Multiple rapid-fire questions:

In the field of education & training by e-consultation a teacher can have multiple options to educate by creating rapid fire questions. These questions can be generated by following methods:

- Creating multiple choice
- Freeform text entry
- Dropdown list question-timed question
- Question with reducible scoring
- Random steps & questions
- Restoring attempts
- Using on screen/printing
- Scoring creating and using objectives

3. Visual Illustrations:

Visual illustrations can be a great method of teaching. These can be conducted with the help of e-consultancy (using computers) or traditional kit in classrooms like blackboards. The objectives are:

- To make the lessons visually attractive & impressive
- To stimulate the sense of sight which leaves a lasting impact on a child's mind
- To enable a learner to visualize accurately & learn faster

Best,
Laxmi Saxena

Dear Colleagues,

Thank you for arranging this discussion forum, it has been inspirational. I would like to add to the discussion of the role of neuroscience. I think that it is time, and it is urgent to provide a real dialogue between educators and neuroscientists when we are talking about educational issues. It can't continue to be one sided discussions. Educators from the different areas of education should be brought to the discussion in equal terms, sharing knowledge and experience.

We need to bring the soul into this discussion; after all we are human beings. The fundamental question is not what neuroscience (usually the medical profession and psychologist) can bring to education, but what educators can bring to the study of neuroscience when we are talking about learning and teaching. On balance educators are who has spent more of their working life in formal and informal education in contact children/adults.

One innovation would be that neuroscience researchers (who traditional attract good grants) start integrating educators in their investigation teams.

Best regards,
Guadalupe G de Turner
General Secretary