The 10 Dimensions of Quality in Education

Source: Mary Joy Pigozzi, PhD, Draft (April 2004)

Introduction

There is a need for a new approach to understanding the quality of education. This is because the current understanding is no longer functional. In addition, in many instances the education that is offered is no longer pertinent to the societies in which we live. Underpinning this wish to reconsider "what is quality" is a desire to focus on learning.

What drives the goals of education today?[1]

Traditionally the quality of education has been an internal affair, the responsibility of the educational authorities at governmental and institutional levels. Today, however, the quality of education is no longer the exclusive preserve of educational authorities and professionals. Ministries other than the Ministry of Education are taking an interest. The same is true for NGOs, businesses, and the general public—all putting different pressures on education. The ramifications of this extend far beyond the walls of individual ministries or educational institutions. To explain why this is occurring and why the quality of education has become a more "high profile" issue, it is necessary to take several key factors into account.

First the growing importance of the quality of education cannot be divorced from the heightened salience of education policy and education reform within the whole range of public policy, mainly because of the acknowledged linkages between education and economic performance, participation in the global economy, and the building of knowledge societies. Much concern about the quality of education derives from the belief that poor quality will frustrate efforts to use education as an effective **lever of economic growth** and development in this age of accelerating globalisation.

Second, the nature of the problem has been redefined. Traditional approaches to the quality of education have often relied upon "proxy" measures such as increases in financing and other inputs in the level of educational provision. While clearly not irrelevant or unhelpful, such outlays may not prove decisive when another criterion for defining and measuring the quality of education is used, namely, measurable educational **outcomes** (knowledge, competencies, skills, and behaviours). Governments and citizens are increasingly concerned about the discrepancy between outlays and outcomes—**what is learned**, and this necessarily raises further questions about "what works?" in teaching/learning processes.

Third, such questions are fuelling a growing trend towards greater government interest in and use of evidence through which student learning attainment **(or achievement ?)** may be monitored both nationally and cross-nationally. This interest has two important dimensions. The first is whether students are learning the right things to lead a decent life in a fast-changing world. The second is closely related. Monitoring of student performance over time and in comparative perspectives, including across national boundaries, can provide information vital for assessing how well or how badly education systems are preparing young people for future adult roles as creative, thinking citizens who can sustain themselves and contribute to the well-being of their families, communities, and societies.

Fourth, such information is becoming more politically sensitive as it points to the **unevenness of quality both within and between education systems**. Quality levels vary widely from one education system to another and, within a single education system, there may be sharp variations in quality, e.g. between public and private schools, urban and rural schools, education for the majority and education for minorities, immigrants, the marginalised, etc. Even in the same classrooms, boys and girls can have significantly different learning experiences. The unevenness of quality is a critical issue facing education systems and is particularly important in relation to the widening education gap between countries, the tasks of development, and the effects of internal disparities on social cohesion.

Fifth, the growing diversification of societies, largely as a result of migration, urbanisation and cultural change, joined with increased sensitivity to the national, regional, gender, cultural, ethnic, and religious bases of individual and group identity, is placing fresh demands upon education systems and is challenging assumptions about the purpose and functions of education. Issues concerning the quality of education cannot be separated from these developments, which have an impact on the learning environment provided by schools. Problems of discrimination, racism, and violence within schools affect learning opportunities and learning achievement.

Sixth, and directly related to the point above, are questions that point to the fundamental purposes of education. Disparity in educational quality often mirrors other disparities (**which ones?**), which many view as directly tied to the fulfilment of human and other rights. Thus, education is being asked to become one tool, of many, that can build societies based on peace, equality, and democratic practice.

"Quality education" as a dynamic concept

These different pressures have resulted in the concept of quality education coming to the fore as learners, parents and communities, educators, leaders, and nations acknowledge that **what is learned and how learning occurs is as important as access to education.** The age-old problems that have plagued educational quality remain, and are further complicated by new challenges such as the role of education in relation to peace and security and the HIV/AIDS pandemic, for example.

One difficulty is that while most people understand intuitively what they mean by "quality of education" there may not be a common understanding of the term. This is especially true now, at the beginning of the 21st Century, when education is increasingly understood to be more than "reading, writing, and arithmetic" and extends to the "expanded vision" of education as articulated at the Jomtien Conference on Education for All in 1990 and re-affirmed at the Dakar World Education Forum in 2000.[2]

The understanding of what constitutes a quality education is evolving. The conventional definition remains important to understanding quality education. It includes literacy, numeracy, and life skills, and is linked directly to such critical components as teachers, content, methodologies, curriculum, examination systems, policy, planning, and management and administration. Basic academics remain essential.

There is a demand, however, for education to reflect upon its **relevance** to the modern world. While in the past much of the emphasis on education related to cognitive understanding and development, now there is a need to also address **the social and other**

dimensions of learning. Education is expected to make a contribution to addressing sustainable human development, peace and security, universal values, informed decision-making, and the quality of life at individual, family, societal, and global levels.

The relationships between access and quality

There is a common misunderstanding that access to education must always precede attention to quality. This is not the case. There is evidence that, in some cases, learners are not taking advantage of school places even when they are available, and in other cases, learners drop out when what they are learning is not relevant to their current or future needs—students "vote with their feet". The following points are now clear.

Educational access and quality are distinct concepts. These two concepts are intricately linked, especially when supply and demand are considered. While quality is impossible without access, access without quality is often meaningless to those for whom access is made possible.

Rights-based education as the conceptual underpinning of quality education

UNESCO promotes quality education as a human right and supports a rights-based approach to the implementation of all educational activities. There are three important aspects of education as a human right:

- Participation in quality education in itself;
- The practise of human rights in education; and
- Education as a right that facilitates the fulfilment of other rights.

Our work is based on a number of international instruments[3] that identify education as a human right. Several of these international instruments indicate the desired nature, or quality of this education. When we look at these instruments together and interpret them, we go far beyond single articles to a web of commitments that speak to the depth and breadth of how we must begin to understand educational quality.

Interpretation of the various instruments with regard to quality education must be embedded within the overall current local and world contexts and expectations of education. That is, education must be placed and understood in terms of the larger context. A quality education must reflect learning in relation to the learner as individual, family and community member, and part of a world society.

A quality education understands the past, is relevant to the present, and has a view to the future. Quality education relates to knowledge building and the skilful application of all forms of knowledge by unique individuals who function both independently and in relation to others. A quality education reflects the dynamic nature of culture and languages, the value of the individual in relation to the larger context, and the importance of living in a way that promotes equality in the present and fosters a sustainable future.

Framing quality education in relation to the modern world

Our primary concern is learning and, therefore, the relationship between the learner and the teacher is critical. However, the inputs, processes, and environments that surround and foster, or hamper, learning are key as well. These can be seen as affecting learning at two

levels: at the **level of the learner** in her or his learning environment, and at the **level of the system** that creates and supports the learning experience. Each of these two levels can be divided into five dimensions. These 10 dimensions of a quality education will be summarised below and are illustrated in the following figure. Learning is at the centre, and it is surrounded by two levels. The inner one is that of the learner and the outer one of the learning system. Both of these levels operate within a specific context, which can vary considerably from location to location.[4]

The learner level

UNESCO is concerned about five key dimensions of quality education at the level of the learner from a rights perspective.

Seeking out learners. Education must be available without discrimination. This underscores the UNESCO commitment to reach out to those that have been traditionally unreached, including the poor, girls, working children, children in emergencies, the disabled, and those with nomadic lifestyles. It is also not merely a concern with quantity. Learners have a right to a quality education that will serve as the basis for lifelong learning.

Thus, a quality education actively seeks out learners and assists them to learn using a wide range of modalities, recognising that learning is linked to experience, language and cultural practices, talents, traits, the external environment, and interests. We learn in different ways, each emphasising different senses and abilities. A quality education is one that welcomes the learner and can adapt to meet learning needs. It is inclusive. A quality education strives to ensure that all learners, regardless of sex, age, language, religion, and ethnicity, for example, are reached—that they have the possibility of participating in and learning from organised learning activities.

Figure I. A Quality Education – A Framework

What the learner brings. What the learner brings to her or his own learning and to that of a group is extremely important. It can vary from work skills, to traumatic experiences, to excellent early childhood development opportunities, to illness or hunger, for example.

A quality education has to consider the learner as an active participant and a central part of educational efforts. Learners bring to their learning, and to that of the group in which they participate, a large diversity of experiences, characteristics, skills and conditions reflecting both their prior and current situation and presenting obstacles as well as opportunities for the way in which they learn.

All of these characteristics determine how a learner learns, behaves in class, interacts with the group and teacher and how s/he interprets the knowledge presented. A quality education therefore has to recognise, and actively respond to, and take advantage of the diversity of learners.

Content. Content is well understood as a component of quality, but this needs to be re-examined in light of the changes that have occurred in the world. Much of what is taught world-wide may be less relevant to learners. There is a need for relevant curricula and materials for literacy, numeracy, and "facts and skills for life", which include education on rights, gender equality, respect for the earth and other life forms, health, nutrition, HIV/AIDS, peace, and respect for and appreciation of diversity.

Equitable access to sufficient educational materials has long been recognised as essential for learning. Low cost materials can facilitate learning as well as expensive ones. Nevertheless, the materials themselves need to be reviewed in light of what they convey about rights, obligations, and responsibilities in ways similar to their review to determine what they denote or connote with respect to gender, stereotyping, and religion, for example.

Processes. Processes of education are a frequently overlooked aspect of quality. How learners are enabled to frame and solve problems, how different learners in the same group are treated, how teachers and administrators are treated and behave, and how families and communities are engaged in education are all processes that affect the quality of education. Differential treatment of children puts forward the notion at an early age that some people do not have the same rights as others, and this must not be tolerated.

Quality educational processes require well-trained teachers able to use learner-centred teaching and learning methods, and life skills approaches. As a result, even the term "learner-centred" must be reconstructed to address issues of disparity and discrimination with regard to culture, language, and gender, for example.

How knowledge, skills, and values are transmitted is as important a part of curriculum as *what* about these is learned. Because, in fact, the process is part of "what" is learned. Within the learning environment learners must be able to express their views, thoughts, and ideas--to participate fully, associate freely, and feel comfortable about who they are, where they come from, their sex, and what they believe in. They need to be given dignity. Without these facilitating processes in place, learners will not develop the self-esteem that is essential for decision-making throughout life. Educational processes can also help learners develop a sense of self discipline that will help them pursue their goals throughout their lifetimes.[5]

Learning environment

Evidence is mounting that the learning environment must also be considered part of educational quality. There must be adequate hygiene and sanitation facilities accessible to all, and, if possible, health and nutrition services in the vicinity. School policies and their implementation must promote physical and mental health, safety, and security. While the physical environment is better understood, the psycho-social one, which is at least as important, deserves serious attention so that practices such as gender discrimination, bullying, corporal punishment, and forced work are eliminated.

Lack of safety and security may be very obvious in terms of physical dangers, such as beatings or rape. However, more insidious are the invisible forms of harassment and violence that are often exerted. Recent research has put the spotlight on violence in education, particularly gender-based violence. Violence in all its forms, i.e. any action with the intention of causing emotional or physical harm to a person, will clearly affect learning. The perpetrators may often be other students, but can also include teachers and school administrators. The particular vulnerability of girls with regard to the range of violence they may experience must continue to be highlighted.

The system level

UNESCO is concerned about five important dimensions of quality education at the system level from a rights perspective.

Managerial and administrative structure and processes. The structure and organisation of education usually serves as the "philosophical underpinning" for what occurs throughout the system, whether in the university, the school, or the curriculum development unit of a ministry of education, for example. A quality education requires a system that supports effective learning.

Education systems exhibit a culture of their own. This is often a culture that reflects (perhaps necessarily) the dominant culture of the nation or a region in the nation. In some cases it still reflects an imposed culture. Knowledge of the cultural norms and practices in operation in a particular educational context or situation facilitate the "negotiation" of that situation in both obvious and subtle ways.

Education must be structured and organised such that it is learner-centred. Currently there are very few institutions and/or bureaucracies that are learner-centred. Where learners are working in non-hazardous labour, the structure and organisation of education must take this into account. Timetables must also be flexible enough to be able to keep children at risk from dropping out or otherwise losing their right to education.

The education system must be fair and transparent to all those in it. Rules and regulations need to be clear, with responsibilities and related procedures well articulated and implemented. Teachers need to be facilitated in their work by a managerial and administrative system that is designed to foster improved learning outcomes.

Well run schools include a space for bringing difficult issues into the open, a key first step to addressing them. Education must be "approachable" by parents and communities. They must feel positive and comfortable about their appropriate roles in the educational process. This will not occur without an "enabling" structure and organisation of the education system at all levels.

It is clear that the structure, organisation, and management of education play an important role in providing the checks and balances that are necessary in any system. This means that involved institutions, such as teacher training colleges and research institutes, are also key participants in educational activities that are consistent with a quality education. Yet, in the final analysis, the system cannot be separated from the human element, from the people who operate it and interpret its rules on a daily basis.

Implementation of good policies Typically, ministries of education set policies; however, they may not be widely known and understood by all, particularly at the classroom level. Therefore, a helpful starting point is to raise awareness among administrators, teachers and students about these policies. The next step is to ensure that there are mechanisms to implement and enforce the policies, since it is pointless to have rules and procedures if they are not observed.

Some of the more successful efforts to promote, implement and enforce good policies are those that have built the broad involvement of teachers and students in setting and respecting them. All school policies need to be consistent with national laws and legislation, which should be regularly reviewed and updated to ensure relevancy.

Education is not independent of the rest of society, nor of policies that are developed and implemented elsewhere in the country. For example, a quality education would require coherent and supportive policies in areas such as "responsible" media, health education, youth, early childhood development, and lifelong learning opportunities.

Appropriate legislative framework. Legislation is essential for ensuring that the principles agreed to that are contained in the concept of the right to education can, in fact, be put into action on a daily basis in a sustained way. As with policies, both education legislation and other related legislation must be in place, understood by the general public as well as experts, and implemented.

There must be an enabling legislative framework that does more than pay lip service to the right to education, defined broadly. It must facilitate these necessary changes in the education system, both at the macro and micro levels. Clearly, a quality education must be accessible to all children. This means it must be expanded in most cases to ensure that there are sufficient places. Legislation needs to address the obligations of provision of education (defined broadly to include both access and quality), resource allocations (human, time and financial), and the overall expectations of the system.

It is important to obligate the *state*, the trustee of the nation, to provide education for all. Too often, compulsory education is seen as a legal framework that places parents and children, especially females, in the negative role of criminal or victim.

Other legislation is critical as well, however. For example, the Convention on the Rights of the Child indicates that children under 15 years of age must not have their learning diverted due to involvement in hostilities. Similarly, international law also states the minimum age for full time work and both labour and education law must be consistent with these agreements.

In many instances, there is a need for compensatory action to ensure equality of opportunity—that is, equity concerns. Current data and practises in an increasing number of

countries suggest that there might be a very strong case for affirmative action, initiated legally, for ensuring educational opportunities for those negatively affected by discrimination.

Resources. A quality education requires resources, recognising the full range that can be brought to bear in support of education. Resources are not only financial but consist of human and time resources as well.

It is clear that while some countries have been able to reorient budgets to emphasise education as a key engine for national development and a means to build democratic societies, others are not in circumstances where this is possible. Allocating resources to support quality education requires a long-term view. For example, international law calls for free compulsory education. It is recognised that this might not be possible immediately in many countries, but plans must be put in place and immediate action initiated toward this end. In the short-run, it is essential that any costs of education be distributed equitably.

Measurement of learning outcomes. This paper began by stressing the importance of learning. Thus, it is only appropriate that the last of the 10 dimensions of quality comes full circle and addresses learning outcomes. In this regard, the quest for a better understanding of what is wanted from a quality education has expanded significantly the desired learning outcomes. The following simple classification of the main types of learning outcomes to be pursued may be helpful:

- Knowledge: the essential cognitive achievements that all learners should reach (including literacy, numeracy, core subject knowledge);
- Values: solidarity, gender equality, tolerance, mutual understanding, respect for human rights, non-violence, respect for human life and dignity;
- Skills or competencies: a secure command of how to solve problems, to experiment, to work in teams, to live together and interact with those who are different, to learn how to learn; and
- Behaviours: the willingness to put into practise what has been learned.

Our ability to measure learning achievement varies considerably in relation to the kinds of outcomes that are being measured. There are many indicators of learning achievement (or their proxies) already in use. There are a number of systems in place that measure learning achievement and use the results for the implementation and assessment of educational policies, programmes and practices.

Using the simple classification above, it is apparent that more effort has gone into addressing knowledge and competencies and less into values and behaviours.[6] This suggests the need for additional work. The evolving understanding of the various dimensions of quality suggests that some of the commonly used indicators might need to be reconsidered as well.

It is possible to monitor the quality of education, although in some instances it will take a re-thinking of what we really should be measuring, how to balance qualitative and quantitative measures, and how to translate some qualitative measures into quantitative ones that can be meaningfully compared.

It is clear that while cross-national comparisons are important, they are not the only ones

on which countries need to focus. In fact, in some instances, cross-country comparisons might not be the most immediate need.

Conclusion

Does this set the bar high? Emphatically yes! Nevertheless, this approach allows education systems the flexibility to determine the ways and means they will use to approach the bar. Education systems and their processes cannot be expected to change overnight. To think so is unrealistic. A vision of quality that takes into account its various dimensions sets the standard. Teachers, schools, communities, systems, and nations are the ones responsible for determining how this vision should be interpreted and, incrementally, put in place.

Notes

1. This portion of the paper is taken from the annotated agenda of the Ministerial Round Table of Ministers of Education, UNESCO, Paris, 4-5 October 2003, which was prepared by the author and Mark Richmond.

2. UNESCO. "The Dakar Framework for Action, Education for All: Meeting our Collective Commitments", UNESCO, Paris, 2000.

3. Including the first human rights convention.

4. Acknowledgement is given to Patricia Russell and Marianne Weeks for the electronic artwork.

5. In relation to the processes and content of education as they relate to EFA, UNESCO is also engaged in an activity to assist countries better monitor progress in achievement of "life skills". It has developed a draft position paper, "Life skills: The bridge to human capabilities", which uses the four pillars of education from the Delors Commission to frame life skills. The development of this paper was led by Anna-Maria Hoffman, supported by Parul Bakhshi, Shigeru Aoyagi, Sayeeda Rahman and Miki Nozawa. A March 2004 inter-agency meeting on the topic (Draft "Final Report of Inter-Agency Working Group on Life Skills in EFA") accepted the Delors frame and emphasised the importance of focussing on a life-skills approach, which emphasises linking process with content and desired learning outcomes.

6. A number of mechanisms exist to measure learning outcomes. Some of the better known are TIMMS, PISA, SACMEQ and the IEA cross national studies, and national studies such as the UNESCO MLA project, which attempts to measure life skills as well as numeracy and literacy, and MLL in India and ABCs in Bangladesh. Most of these focus on cognitive achievement, although a variety of efforts is underway to measure values, skills, and behaviours.