

Redefining Quality in Developing World Education

In the outskirts of Medellin, Colombia, impoverished rural schoolchildren have cause for hope. The Colombian Coffee Growers' Association wants to hire them. Why? Because these children have developed the independent thinking, communication, and work skills that will make them an asset to the industry. They developed these skills in their multigrade primary schools, where children do most of their learning in competence-based groups, while the teacher functions as guide and coach.

In Kenya, a teenage boy is also celebrating. A primary school dropout who once survived outside the law, he now runs his own small business, lives on his own, and even helps support his family financially. He learned the skills he needed in a 12-week entrepreneurship program offered to youth living on the streets in the heart of one of Africa's largest slums.

The life-changing economic opportunities now available to these children are the direct result of the unique quality of their schooling, which has had a direct and positive impact on their immediate circumstances. In other words, these children's schooling was made relevant to their current life experiences and those they will later encounter.

WEAKNESS OF CURRENT PRACTICES

These children's stories unfortunately are not common. Currently, the dominant view in both developed and developing countries is that education quality is synonymous with content mastery. A Western model of education usually dominates the content of and the approach to both primary and secondary education. School systems evaluate students' performance based on their ability to achieve international standards in language, math, science, and social studies. As a result, although the life trajectories of students in various locations and circumstances vary dramatically, there is significant overlap across the curricula prescribed for

Marc J. Epstein is Distinguished Research Professor of Management at Rice University, Texas.

Kristi Yuthas is the Swigert Professor in Information Technology at Portland State University, Oregon.

schools in elite North American and European cities and those prescribed for schools in rural African villages. It may seem obvious that, beyond basic literacy, numeracy, and critical thinking skills, the schooling students receive must vary according to their vastly different environments and life trajectories, but that is not the prevailing practice.

Children living in impoverished regions need knowledge and tools that will give them the best chance to escape the cycle of poverty. They need to develop daily behaviors and health habits that will help them maintain a good quality of life and ensure their ability to work. For the longer term, children need to develop the capacity to generate an income that meets their basic needs—food, shelter, health care, security. In regions where jobs are available, children must learn the basic skills that enable them to work productively for and with others. However, since impoverished regions have few paid employment opportunities, most children in the developing world must be able to generate their own livelihoods. Thus they need the marketplace and entrepreneurial skills that will enable them to identify, pursue, and produce economic opportunities successfully.

PROBLEMS IN DEVELOPING WORLD EDUCATION

Traditional perspectives assume that education plays a positive role in economic development and that universal access to primary schooling plays a critical role in breaking the cycle of poverty (Levine & Birdsall, 2005). However, the benefits of education never materialize for most children in impoverished regions. Even as access to schooling expands dramatically, few children are able to make significant changes in their life opportunities, and their communities remain impoverished. As a result, the pursuit of a higher education seems irrelevant for most children living in poverty. Statistics bear out the expectations that most impoverished children won't reach college or even secondary school. In Rwanda, for example, in 2007, 2.15 million students were enrolled in primary school, 267,000 in secondary school, and 26,400 at the college level (EFA Report, 2008). In sub-Saharan Africa, gross enrollment rates for primary and secondary schools were 74 percent and 26 percent, respectively, and only 6 percent of students attend college, most of whom are from wealthy families (EFA Report, 2008).

Many factors contribute to this problem, two of which are well known and have been addressed extensively—the problems of access and quality. A third problem—the relevance of schooling to the lives of the children—has been largely overlooked.

Problem 1: Access

Education lays a foundation for reducing poverty and increasing knowledge and skill, yet providing access to even the most rudimentary education represents an enormous challenge for many countries. In developing countries, retention and dropout rates remain high, and primary school completion rates remain low. Statistics from 2011 reported by the World Bank (2013) show that in the least

developed countries, 80 percent of primary school-age children were enrolled in primary school, but less than 60 percent of those enrolled are able to complete primary school. In these countries, only 33 percent of secondary school-age children were enrolled in secondary school, and only 8 percent of college-age populations were enrolled in tertiary education.

To combat the problem of access to education, the United Nations endorsed the Millennium Development Goals, which propose achieving universal access to education by 2015. Many countries have made the commitment to reach this goal. Ghana, for example, has pledged that, by 2015, boys and girls throughout the country will be able to enroll in and complete a full course of primary schooling. The least developed countries have made impressive gains in access to education, and primary school attendance increased by 20 percent between 2001 and 2011 (World Bank, 2013).

Unfortunately, promising enrollment statistics often hide the full picture. A recent report from Rwanda's Ministry of Education (2008), for example, states that the rapid expansion of higher education has put a significant strain on the country's resources; school attendance has outpaced infrastructure capacity and the availability of trained teachers in Rwanda. Children often are crammed into overcrowded classrooms with 75 or more in one room. In 2010, the average pupil-teacher ratio in primary schools ranged from 56-79:1 for Chad, Mozambique, Malawi, and Rwanda (World Bank, 2012), while the average pupil-teacher ratio for sub-Saharan Africa was 45:1 (EFA Report, 2011). Schools often run two shifts per day, which makes teachers responsible for a great number of students and leaves them little time for grading or for giving individual attention to students (Abadzi, 2007). Furthermore, national averages often mask larger differences between the lowest and highest pupil-teacher ratio across the country, and ratios are often highest in the most impoverished regions (EFA Report, 2008). This difficult educational situation is made worse by the lack of electricity, access to clean water, and rudimentary sanitary facilities at schools in many poor areas (EFA Report, 2009).

Increasing access to school alone will not solve the education problem if the scarce pool of resources remains the same. Although the level of pledged aid has increased, the official development assistance received by almost every OECD country in 2010 was far short of the amount pledged (EFA Report, 2010). As access increases, additional resources must be provided to support higher quality schooling.

Problem 2: Quality

Eighty percent of the world's children live in developing countries. These children desperately need a quality education so they will be able to provide for their own livelihoods and contribute to their countries' economic development. Yet literacy rates are low, especially in Africa and South Asia, where less than 30 percent of the youth population in some countries can read and write (EFA Report, 2008).

Despite large gains in access to education, educational outcomes, as measured by performance on standardized tests or simple cognitive tasks, are still very poor. One World Bank study (2006) found that fewer than 10 percent of primary students reached mastery levels in math and that in many countries, 50 percent or fewer students could read independently by grade 5. Forty percent of students in Senegal had difficulty arranging numbers with two decimals in order; and fewer than 20 percent of fifth graders in Ghana and Peru were able to read a simple sentence (Gillies & Jester-Quijada, 2008).

Education for All reports that, in 2010, despite heavy investment, children still have very poor educational outcomes, even in primary schools that have World Bank support (EFA Report, 2010). In Chad, Ghana, Nigeria, and Bangladesh, the World Bank found that fewer than 19 percent of sixth graders reached expected competency levels in language and fewer than 11 percent did so in math. In Ghana, only 50 percent of the children successfully complete grade 5 (Gillies & Jester-Quijada, 2008). Results of standardized tests such as the Trends in International Mathematics and Science Study and the Progress on International Reading Literacy Study show substantial performance gaps between wealthy and poor countries, despite significant and continuous investment in improving education in the developing world (EFA Report, 2010).

Reasons for this clear deficiency in the quality of education include the stress put on educational systems by rapidly expanding student access. Increasing class sizes leads to packed rooms that compound pervasive longstanding problems of high student and teacher absenteeism and school closures (EFA Report, 2010). Instructional time in developing countries is often below the accepted benchmark of 850-1000 hours per year (EFA Report, 2005), and learning materials are scarce. In a number of African countries, between 25 percent and 40 percent of teachers say they have no book or guide for the subjects they teach (EFA Report, 2008). Studies of the availability of textbooks have shown ratios as low as one textbook for every 30 children, sometimes as many as 70, and students are rarely allowed to take books home (Gillies & Jester-Quijada, 2008). Moreover, in Chad, Ghana, Nigeria, and Bangladesh, only 35 percent to 56 percent of primary school teachers are trained (EFA Report, 2008). As a result, educational performance is extremely low, even among children who are able to pass state examinations.

A significant increase in quality educational resources is needed to help solve the problems of school quality and access to education in developing countries. However, this will not address the issue of relevance, the third and often overlooked piece that also must be reformed before education can significantly improve the lives of students in developing countries.

Problem 3: Relevance

A fifth-grade boy in Bangladesh is attending a rural school run by an NGO. He performs well and is on course to complete school and pass the standardized state competency exam. He joined this school after dropping out of the government

school to help his family on their small farm during a period of heavy flooding. However, he and his family consider his schooling to be separate from and irrelevant to their everyday lives. When he returns home in the evening, he works with his father, learning the skills for the grinding life of subsistence farming he faces in the future. He then helps his mother prepare the meal without washing either his hands or the pesticide-laden vegetables they will eat.

Although some children in the developing world do receive schooling that is consistent with international standards, they may find that little of what they have learned has direct relevance for addressing the health challenges and economic opportunities they will face after completing school (Freedman, 2008). Standard education in developed countries can afford to use broad-based curricula that prepare students for higher-level schooling and provide a general foundation upon which they can build as they narrow their focus for future studies and work opportunities.

However, impoverished students in developing countries generally begin working during primary school or shortly after finishing. They typically participate in domestic work and help with the family business (Garcia & Fares, 2008). For these children, schooling is currently highly disconnected from their lives outside of school. Beyond basic literacy and reasoning skills, students often receive little return on the investment they and their families make in their educations.

Furthermore, even if they meet international competency benchmarks, for most children the opportunities after completing primary school are few. The majority is unable to move on to secondary school, either because there are no schools available in the region or because their families can't afford to send them to school. The annual cost of secondary school, including fees and boarding, is over \$500 per year, which is significantly more than the average annual income in many developing countries (World Bank, 2008a).

However, even completing secondary school does not guarantee that students will find a job. Most who participate in the labor force of developing countries work in the informal economy earning subsistence-level wages. The OECD reports that, in 2009, the number of workers in the informal economy exceeded the number who have formal wage contracts and social security; informal and self-employment often accounts for more than 80 percent of a country's total employment in both urban and rural areas (EFA Report, 2010). In Kenya, for example, 86 percent of the labor force works in the informal sector, as does 93 percent in Tanzania. In sub-Saharan Africa, the informal economy accounts for more than 75 percent of the workforce, while in South Asia it exceeds 90 percent. Informal jobs typically require a low level of literacy and render much of the higher-level knowledge taught in traditional school subjects useless. Moreover, many people in rural sub-Saharan Africa work only for family and are unpaid, and long-term employment is a significant problem in many urban areas: in Tanzania, for example, more than 70 percent of unemployed young adults have been without work for more than a year (Garcia & Fares, 2008).

Although children who complete primary and secondary school have a higher level of knowledge and skill than those who do not, they still may not have the knowledge needed to handle the challenges facing them and their families (Freedman, 2008). The high-level curricular content in government primary schools may not provide students with relevant information that can positively influence their day-to-day lives. The education students receive is thus often a mismatch for the skills they need to succeed in the labor market, even when they have graduated from tertiary schools (UNECA, 2012).

FINDING APPROACHES THAT WORK

Although the overall state of education in many regions is poor, some programs have made great strides in addressing the needs of underserved markets. We have explored alternative approaches to education in the developing world in order to identify the best models available for providing affordable, high-quality, relevant education. We reviewed hundreds of academic articles to identify the levers that have produced the best education outcomes. Of particular interest were teacher quality, pedagogical approach, and material resources.

We also interviewed leaders of organizations involved in providing, supporting, and funding education. Most importantly, we completed extensive field research, visiting many schools for the poor in countries throughout Latin America, Asia, and Africa. Over two years, we visited hundreds of leaders in dozens of schools; explored the curricula, pedagogies, infrastructures, and management of these schools; and discussed their strengths and weaknesses with government leaders, school administrators, parents, community leaders, teachers, and students.

We visited some of the world's largest and most successful and innovative education programs, including BRAC, an NGO in Bangladesh that owns and operates 32,000 primary schools; Pratham, which provides literacy and other educational support programs to 33 million children in India; and Escuela Nueva, the Colombian program of mono- and multigrade teaching that now extends to 20,000 schools. We conducted field research with these organizations and developed a model for how social enterprises can achieve scale and quality simultaneously through the effective management of three key levers: products, processes, and passion (Epstein & Yuthas, 2012a).

We have gained valuable insights about educational needs through our work with large organizations that serve the poor, and with poor microbusiness owners. We have met with hundreds of microenterprise owners in Nicaragua, Malawi, and Ghana and have developed entrepreneurship training that has been used to help these owners overcome impediments to business growth and profitability. We have spent a great deal of time assessing the performance of microfinance institutions and their role in supporting entrepreneurship and livelihoods as a way to alleviate poverty. We found that microfinance was not meeting its objectives with many clients because neither the lending institution nor the clients had sufficient human

and social capital to use the financial capital effectively (Datar, Epstein, & Yuthas, 2010).

THE SOLUTION IS RELEVANT EDUCATION: SCHOOL FOR LIFE

In our years of work with microfinance clients we have seen the difficulties they have faced and the mistakes they have made (Datar, Epstein, & Yuthas, 2008, 2009), which has given us a deep understanding of the reasons behind and solutions for problems in education and the intricacies of working within the social, cultural, and financial constraints faced by communities in developing countries. We are convinced that making a number of key changes to curricular content and pedagogy could make education relevant to the lives of poor children. These changes must be embedded in students' social and cultural context and address their psychological and cognitive capabilities. Moreover, since few students continue on to secondary school, this must be part of the primary school curriculum.

We use the term "School for Life" to describe an educational approach built around what we believe are the core educational needs of students living in impoverished regions that offer few opportunities for employment or for training beyond the primary school level. These students need skills they can use immediately to enhance their health and economic well-being and to contribute to the development of their communities. Our approach includes three elements essential to a high-quality education:

1. Entrepreneurship. This includes financial and marketplace literacy. It focuses on helping children learn to manage money and market transactions, enabling them to identify and pursue market opportunities, and teaching them workplace skills to improve productivity and effectiveness.

2. Health education. This includes essential health behaviors, the importance and consequences of healthy behaviors, and the strategies for employing them that children can share with their families and incorporate into everyday life.

3. Empowerment. A student-driven approach to learning that provides practical learning in a supportive environment and includes helping children develop critical thinking skills and the self-efficacy necessary to put them into action.

Figures 1 and 2 (following page) display two perspectives on quality education. The first one is used by most schools today in both developing and developed countries, which provide a basic liberal education that includes math, science, language, and social studies. Arrow A in figure 1 shows that students in high-quality schools achieve basic literacy and numeracy, master core content, and perform well on assessment tests, whereas the broken arrow reveals the lack of relationship between this quality schooling and what happens economically and socially in the children's lives after school. This figure suggests that higher test scores and content mastery do not necessarily prepare students for success, and that schools are not delivering the improved life opportunities they promise, thus poverty and unemployment persist, even among "educated" students who can pass exams. In fact, the ability of test scores or educational achievement to predict students' economic suc-

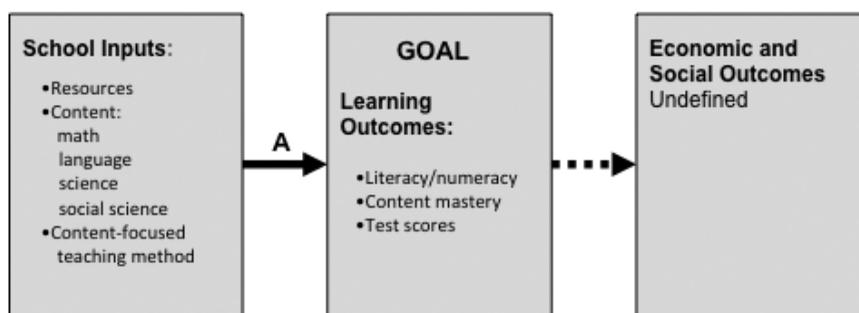


Figure 1. Traditional educational model

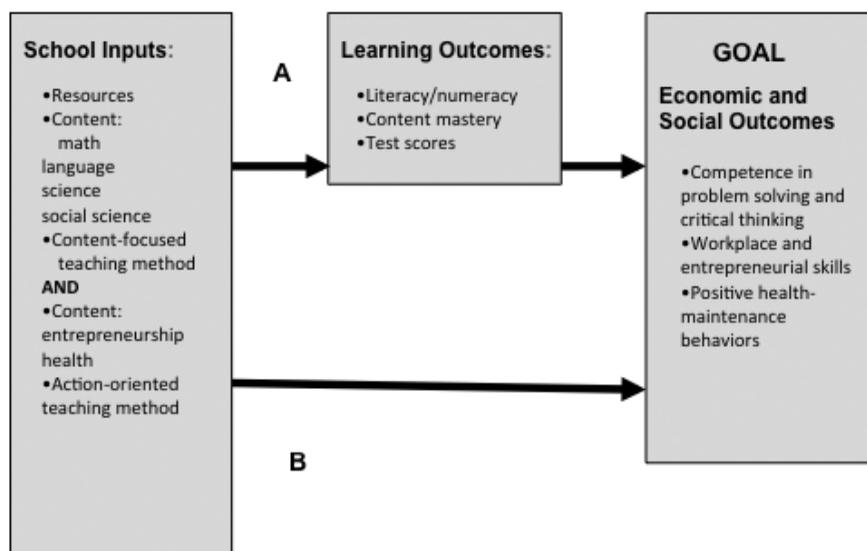


Figure 2. Relevant educational model—School for Life

cess or general well-being has rarely been investigated, and where it has results point to a negative or insignificant relationship (Garcia & Fares, 2008).

In developed regions, there is a strong correlation between years of schooling and income, but high-performing students in impoverished regions face a different future. A report by the Middle East Youth Initiative demonstrated that young people in the region simply were not benefiting from high-quality Western-style education (Dhillon et al., 2009). The World Bank (2008b) has raised similar questions and issues in the Eastern Caribbean, where no advanced schooling is available and opportunities for paid employment are rare. Schooling does not equip

young people with the entrepreneurial knowledge and skills they will need to succeed in the harsh economic environment they will face (Garcia & Fares, 2008), thus they must apply whatever knowledge and skills they can garner outside of school to create their own livelihoods. Most children end up working in family businesses or on neighborhood farms, or they start their own subsistence-level enterprises.

Schools neither provide the financial literacy students will need to manage their meager resources nor prepare them to make productive investments and build wealth. Moreover, life expectancy is low in impoverished regions, and schools do little to promote students' physical well-being. The devastation wreaked by common diseases and the financial instability in poor regions could be dramatically mitigated through teaching basic health behaviors.

To address these problems, the notion of quality schools must be redefined in developing countries. As figure 2 shows in the School for Life model, the focus of schooling should be not only learning outcomes but also the impact schooling has on the economic and social well-being of students and their communities. Redefining the meaning of quality schools can help to achieve such goals as competence in problem-solving and critical thinking, workplace and entrepreneurial skills, and positive health behaviors, which are listed in the final box in figure 2.

The first action in the School for Life model is to include entrepreneurship and health components in the school curriculum. The second is to change from a lecture-based pedagogical method to an active-learning approach designed to build skills and competencies that will give students the practical experiences they need to envision themselves as effective health and business managers.

ENTREPRENEURSHIP

Entrepreneurship is a word often used to describe quite different things. We differentiate entrepreneurship from business management and vocational training, and associate it with identifying business opportunities and amassing the resources necessary to pursue them. The International Labor Organization has recommended that entrepreneurship education be part of a school curriculum (Making Cents International, 2009, 2010) that includes three basic life skills: financial literacy, entrepreneurship, and workplace readiness:

- **Financial literacy** provides a foundation that enables children to understand money flows, debt and savings, how buying and selling can work more effectively in a marketplace, and the components of business revenue, costs, and profit.
- **Entrepreneurship** includes evaluation and assessment of local businesses and markets, the identification of market gaps, competitor advantages, and entrepreneurial opportunities, and the basics of running a business, including obtaining resources, working with others, and managing costs and sales.
- **Workplace readiness** refers to teaching students skills they will need in the workplace, including interpersonal characteristics, the ability to lead others and to work in teams, project planning and management, and designing effective workflows.

The impetus for teaching these skills is clear in light of the global youth unemployment crisis. In sub-Saharan Africa, where 72 percent of the youth population lives on less than \$2 a day, 60 percent of the unemployed are young people (World Bank, 2009) who face a disproportionate deficit of “decent work opportunities” (International Labor Organization, 2008). There is a wealth of evidence that the state of (un)employment, labor markets, and the skills gap faced by youth point to a promising role for entrepreneurship education (Axmann, 2004; Baker, 2008; Chambers & Lake, 2002; Forum on Education Abroad, 2009, 2010; Isaacs, Visser, Friedrich, & Brijlal, 2007; Mac-Ikemenjima, 2008). In fact, informal and self-employment account for up to 80 percent of employment in developing countries (EFA Report, 2010).

HEALTH

Health education is also critical, as people in impoverished communities have limited access to health-care services and must manage their health with little support. Even basic diseases like malaria and intestinal worms can have a devastating impact, and such risk factors are increasing in developing countries. Many common health problems, such as malaria, dysentery, respiratory infections, and nutrition-related illnesses, can be reduced when people are taught how to prevent and control them, such as using malaria nets, boiling drinking water, and wearing footwear near latrines. However, these practices aren’t common in many communities, due in great part to a lack of information. Children can play an important role in the bringing health information to their families, because the school is one of the only places such information is available. The positive relationship between education and health status has been discussed and supported for years (Cutler & Lleras-Muney, 2006).

Educating children also can reduce the risk of contracting infectious diseases such as HIV/AIDS. A study in Uganda examined the impact of a two-year primary school health education program focused on HIV/AIDS prevention. The results were positive, and suggested that such a program could be implemented with the existing teaching staff at a reasonable cost (Shuey, Babishangire, Omiat, & Bagarukayo, 1999). Research on this and other educational programs strongly suggests that health training can change young people’s knowledge, attitudes, and behaviors, and that of their families.

EMPOWERMENT

Students in developing country schools are rarely empowered to think independently and the dominant educational strategy in these schools is rote learning. At a school in Rwanda, a foreign visitor asked the children to draw a picture. As she walked around the room, she realized that all of the children had chosen one of six different pictures, including a flower, a bird, and a house with a chimney and curl of smoke (a type of house that did not exist in Rwanda). The children had never

seen these things and were reproducing drawings they had been taught to replicate. When the visitor told the children they could draw anything they liked, the children reacted with surprise and confusion—they had not previously been empowered with such a broad range of choices.

It has been proposed that empowering the poor to be problem-solvers could be more effective than any other government-led approach to economic development (Collier, 2007). Labor is the most valuable national resource in many countries, and unleashing the potential of that resource to tackle problems and innovate will increase productivity, wealth, and accountability (Collier, 2007).

However, the dominant teaching style in most impoverished countries is a teacher-centered approach where students learn through repetition and memorization. Students in these regions thus have few opportunities for creative inquiry and problem-solving (EFA Report, 2005), even though the importance creativity and innovation play in youth development is supported by those who analyze their importance in securing jobs (IYF, 2009).

Thinking critically requires the ability to identify a problem or raise a question, and to thoughtfully gather and apply information to solve the problem. To empower students to become critical thinkers, a different method of teaching is needed. A 2009 report by the World Economic Forum prescribes pedagogical strategies for teaching entrepreneurship. The report argues that a conceptual, lecture-based approach followed in most school systems is not sufficient for mastering entrepreneurship knowledge and empowering students. Students instead must participate in games and simulations that allow them to internalize and practice business concepts and skills (World Economic Forum, 2009). Evidence in both business and health education suggests that without empowerment, knowledge gained is very difficult to translate into behavioral change. Students need to be equipped to envision themselves operating within a livelihood context.

IMPLEMENTING RELEVANT EDUCATION MODELS

The bottom line of our investigation into schooling for impoverished children is that the traditional definition of school quality leads to wasted resources and missed opportunities for individuals and communities to develop their potential. Schooling must provide children throughout the developing world with the economic development and life opportunities they need and deserve. Government agencies and organizations that support and promote quality education for all children need to focus on providing students with the knowledge and skills to effectively navigate the world that awaits them when they finish school. Governments, aid organizations, and school proprietors in the developing world must redesign education systems to include content and experiences most relevant and valuable to students. What is needed is nothing less than a complete redefinition of quality education in the developing world.

The “new” quality education must include basic entrepreneurial and job skills, health maintenance and management skills, and the critical thinking and problem-

solving skills that will enable students to make effective choices in all aspects of life. Relevant education need not cost more than current approaches. Students receiving a relevant education will be less likely to drop out or repeat grades, and test scores are likely to improve. As a result, the cost to produce one passing student can be dramatically reduced, and families may be more likely to invest in their children's secondary or tertiary education.

Practical application of the new knowledge on a day-to-day basis helps empower children and enable them to use what they have learned. Practice must be a core element embedded in classroom pedagogy and applied to real problems faced by the children in their lives beyond school. For example, students can practice routine health behaviors during school, such as washing hands before eating and wearing shoes near latrines. Understanding of finances and markets can be practiced by using point systems in which students earn points by participating in classroom-related work, such as cleaning chalkboards or putting away materials. They can save and budget these points to spend them on valuable goods, such as a prime desk location or being first in line for lunch. Students can pursue unpaid entrepreneurial opportunities, such as clearing trash from the neighborhood and turning in recyclables, or they can operate for-profit businesses such as school gardens or snack carts.

Students can also develop higher-order administrative skills in the classroom. For example, students can work on committees assigned to address an aspect of the school environment, such as cleanliness or exercise. In these committees, they can design and carry out complex projects, such as coordinating athletic activities to be played during recess, or school performances for parents or community members. They can develop procedures for diagnosing whether classmates are ill and recommending treatments.

Content and activities such as these enable students to learn and practice workplace skills and attitudes like delegation, negotiation, collaboration, and planning—opportunities that are rarely available to them outside of their families. Perhaps more importantly, these activities enable them to see themselves in idea-generation, problem-solving, decision-making, and leadership roles

Some school systems have begun to include entrepreneurship and health topics in their curricula, especially at the secondary school level, but they are not yet giving students the skills to employ this information. Schools must adopt action-oriented approaches that help students develop critical thinking skills and empower them both to identify and evaluate problems and to design and carry out plans for solving them. This combination of relevant content and student empowerment will give students the knowledge, skills, and attitudes they need to succeed when they leave school, whether they head on to college or remain in their communities.

The School for Life approach (Epstein & Yuthas, 2012b) redefines the notion of quality education in developing country schools. Our approach combines traditional educational content with critically important financial, health, and administrative material, which can be delivered via existing school systems and teachers (see Epstein & Yuthas, 2013). Entrepreneurship and health modules are mandato-

ry components of the curriculum for all primary students, and we use student-centered learning methods that require students to work in groups to solve complex problems and manage projects on their own. The health curriculum draws on the work of the World Health Organization and focuses on preventing disease, caring for sick children, and obtaining medical care. The entrepreneurship curriculum is informed by our work with adult entrepreneurs in developing countries and draws ideas from a broad range of financial and entrepreneurial programs developed by organizations like the International Labor Organization, Junior Achievement, and Aflatoun.

A pilot of the School for Life approach is being developed by Escuela Nueva in Colombia. Escuela Nueva was the pioneer in adopting student-centered approaches in impoverished rural environments, which often have multigrade classrooms. Escuela Nueva develops classroom materials and pedagogical approaches in which students work in self-directed teams to learn, discuss, and actively practice using the basic content of the standard governmental curriculum.

To be relevant to the needs of the children they serve, school programs must shift the goal of schooling away from achieving standardized learning outcomes and toward improving the economic and social well-being of students and their communities. The global business community can support this process by developing relationships with organizations and businesses operating in impoverished communities and contributing ideas about what skills and capabilities students will need to succeed in the local and global economy.

References

- Abadzi, H. (2007). *Absenteeism and beyond: Instructional time loss and consequences* (Policy Research Working Paper No. 4376). Washington, DC: World Bank, Thematic and Global Evaluation Division, Independent Evaluation Group Sector.
- Axmann, M. (2004). *Facilitating labour market entry for youth through enterprise-based schemes in vocational education and training and skills development* (SEED Working Paper No. 48). Geneva, Switzerland: International Labor Office.
- Baker, K. (2008, November). *Fostering a global spirit of youth enterprise*. London: The Prince's Youth Business International.
- Boutayeb, A., & Boutayeb, S. (2005). The burden of noncommunicable diseases in developing countries. *International Journal for Equity in Health*, 4(2), 1-8.
- Chambers, R., & Lake A. (2002). *In focus programme on skills, knowledge, and employability* (Skills Working Paper No. 3). Geneva & London: International Labor Organization & Youth Business International.
- Cheng, Y., Lou, C. H., Mueller, L. M., Zhao, S. L., Yang, J. H., Tu, X. W. et al. (2008). Effectiveness of a school-based AIDS education program among rural students in HIV high epidemic area of China. *Journal of Adolescent Health*, 42, 184-191.
- Collier, P. (2007). *The bottom billion: Why the poorest countries are failing and what can be done about it*. New York: Oxford University Press.
- Cutler, D. M., & Lleras-Muney, A. (2006). *Education and health: Evaluating theories and evidence* (Working Paper No. 12352). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w12352>

- Datar, S. M., Epstein, M. J. & Yuthas, K. (2008). In microfinance, clients must come first. *Stanford Social Innovation Review*, Winter, 38-45.
- Datar, S. M., Epstein, M. J. & Yuthas, K. (2009). Management accounting and control: Lessons for and from the world's tiniest businesses. *Strategic Finance*, 91(5), 27-34.
- Datar, S. M., Epstein, M. J., & Yuthas, K. (2010). Enamored with scale: Scaling with limited impact in the microfinance industry. In P. N. Bloom & Edward Skloot (Eds.), *Scaling social impact: New thinking*. New York: Palgrave Macmillan.
- Dhillon, N., Salehi-Isfahani, D., Dyer, P., Yousef, T., Fahmy, A., & Kraetsch, M. (2009, May). *Missed by the boom, hurt by the bust: Making markets work for young people in the Middle East*. Dubai & Washington, DC: Dubai School of Government & Wolfensohn Center for Development at Brookings.
- EFA Global Monitoring Report. (2005). *Education for all: The quality imperative*. Paris: UNESCO.
- EFA Global Monitoring Report. (2008). *Education for all by 2015: Will we make it?* Paris: UNESCO.
- EFA Global Monitoring Report. (2009). *Overcoming inequality: Why governance matters*. Paris: UNESCO.
- EFA Global Monitoring Report. (2010). *Reaching the marginalized*. Paris: UNESCO.
- EFA Global Monitoring Report. (2011). *The hidden crisis: Armed conflict and education*. Paris: UNESCO
- Epstein, M. J., & Yuthas, K. (2012a). Scaling effective education for the poor in developing countries: A report from the field. *Journal of Public Policy & Marketing*, 31, 102-114.
- Epstein, M. J., & Yuthas, K. (2012b). Redefining educational quality in the developing world. *Stanford Social Innovation Review*, Winter: 19-20.
- Epstein, M. J., & Yuthas, K. (2013). *School for life: A new era of education in the developing world* (Rice University Working Paper).
- Forum on Education Abroad. (2009). *State of the field survey 2008*. Carlisle, PA: Author.
- Forum on Education Abroad. (2010). *State of the field survey 2009*. Carlisle, PA: Author.
- Freedman, D. H. (2008). *Improving skills and productivity of disadvantaged youth* (Employment Working Paper No. 7). Geneva: International Labor Organization.
- Garcia, M. H., & Fares, J. (Eds.). (2008). *Youth in Africa's labor market*. Washington, DC: The World Bank.
- Gillies, J., & Jester-Quijada, J. (2008). Opportunity to learn: A high impact strategy for improving educational outcomes in developing countries. Washington DC: EQUIP2, AED, & USAID.
- Hanushek, E. A., & Woessmann, L. (2007). *Education quality and economic growth*. Washington, DC: The World Bank.
- Hanushek, E. A., & Woessman, L. (2008). The role of cognitive skills in economic development. *Journal of Economic Literature*, 46, 607-668.
- Hossain, P., Kawar, B., & El Nahas, M. (2007). Obesity and diabetes in the developing world: A growing challenge. *The New England Journal of Medicine*, 356, 213-215.
- International Labor Organization. (2008). *Global employment trends for youth*. Geneva: Author.
- International Youth Foundation. (2009, January). *Nurturing young people's creativity* (Field Notes 3, No. 15). Baltimore, MD: Author.
- Isaacs, E., Visser, K., Friedrich, C., & Brijlal, P. (2007). Entrepreneurship education and training at the further education and training (FET) level. *South African Journal of Education*, 27, 613-629.

Redefining Quality in Developing World Education

- Klepp, K.-I., Ndeki, S. S., Leshabari, M. T., Hannan, P. J., & Lyimo, B. A. (1997, December). AIDS education in Tanzania: Promoting risk reduction among primary school children, *American Journal of Public Health*, 87, 1931-1936.
- Levine, R., & Birdsall, N. (2005). *On the road to universal primary education*. Washington, DC: Center for Global Development.
- Mac-Ikemenjima, D. (2008, September). Youth development, reintegration, reconciliation and rehabilitation in post-conflict West Africa: A framework for Sierra Leone, Liberia and Cote d'Ivoire. *International NGO Journal*, 3, 146-151. Retrieved from <http://www.academicjournals.org/INGOJ>
- Making Cents International. (2009). *State of the field in youth enterprise, employment, and livelihoods development: Market-driven approaches; monitoring, evaluation, and impact assessment; and youth-inclusive financial services*. Washington, DC: Author.
- Making Cents International. (2010). *State of the field in youth enterprise, employment, and livelihoods development: Programming and policymaking in youth enterprise, employment, and livelihoods development; and youth-inclusive financial services*. Washington, DC: Author.
- Maticka-Tyndale, E. (2010). Sustainability of gains made in a primary school HIV prevention programme in Kenya into the secondary school years. *Journal of Adolescence*, 33, 563-573.
- Ministry of Education. (2008, July). *Higher education policy report*. Republic of Rwanda, Ministry of Education. Kigali, Rwanda: Author.
- Shuey, D. A., Babishangire, B. B., Omiat, S., & Bagarukayo, H. (1999). Increased sexual abstinence among in-school adolescents as a result of school health education in Soroti district, Uganda. *Health Education Research*, 14, 411-419.
- United Nations. (2011). *The millennium development goals report*. New York: Author.
- United Nations Economic Commission for Africa. (2012). *Economic report on Africa 2012: Unleashing Africa's potential as a pole of global growth*. Addis Ababa, Ethiopia: United Nations.
- Unwin, N., Setel, P., Rashid, S., Mugusi, F., Mbanya, J.-C., Kitange, H. et al. (2001). Non-communicable diseases in sub-Saharan Africa: Where do they feature in the health research agenda? *Bulletin of the World Health Organization*, 79, 947-953.
- World Bank. (2006). *From schooling access to learning outcomes—An unfinished agenda: An evaluation of World Bank support to primary education*. Washington, DC: Author.
- World Bank. (2008a). *At the crossroads: Choices for secondary education in sub-Saharan Africa*. Washington, DC: World Bank.
- World Bank. (2008b). *School and work in the eastern Caribbean: Does the education system adequately prepare youth for the global economy?* Washington, DC: World Bank.
- World Bank. (2009). *Africa development indicators 2008/09—Youth and employment in Africa: The potential, the problem, the promise*. Washington, DC: World Bank.
- World Bank. (2012). Pupil-teacher ratio, primary. Washington, DC: Author. Retrieved May 18, 2012, from <http://data.worldbank.org/indicator/SE.PRM.ENRL.TC.ZS/countries/1W?display=default>.
- World Economic Forum. (2009). *Educating the next wave of entrepreneurs: Unlocking entrepreneurial capabilities to meet the global challenges of the 21st century*. Cologny/Geneva Switzerland: World Economic Forum.
- Yach, D., Hawkes, C., Gould, C. L., & Hofman, K. J. (2004). The global burden of chronic diseases: Overcoming impediments to prevention and control. *The Journal of the American Medical Association*, 291, 2616-2622.