Falling Standards of *Education*, or Improving Standards of *Knowledge*—Education and Development Paradigm Revisited

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Introduction

The education for development paradigm has always instituted the State perception of education as the main mechanism for social and economic development. Using the human capital paradigm that sees the greater production of qualified manpower as the main capital for development, State effort had always tended to focus on the greater production of qualified students and other personnel as the mainstay of development efforts.

Thus increased enrolment, higher retention and even higher transition from one segment of education to another is heralded as the most effective way to achieve development via massive manpower production. In almost all analyses of such scenarios, comparisons are often made between the quality of education "in the past" and the quality of education "now". The overwhelming conclusions are often that "the quality of education is falling down". A perfect example was given by Gen. Muhammad Buhari (Rtd), a former military leader of Nigeria, and a presidential candidate in a civilian dispensation. In a speech delivered at a Conference on the Falling Standards of Education held in 1996, he argued

> When one examines statistics from examination bodies such as the West African Examinations Council, WAEC, National Board for Technical Education, NBTE, Joint Admissions and Matriculation Board, JAMB, and others the pathetic situation of the North becomes clearer. In the recent WAEC results some northern states recorded the abysmally low results of less than 1 per cent pass. That is bad enough. But what JAMB results show is even worse, with regard to the disparity between the North and the South. From 1992 to date the results show that the worst state in the South has more successful students than all the northern states put together, less Benue and Kwara. This situation, no doubt, makes every right thinking Nigerian see not only the widening gap between the northern and southern states, but also shows that the future, if indeed there is a future, is very bleak…There are many reasons why we are in the state that we are today. In the past, of course, all educational development was planned. No school was established that was not needed; and none established was left unequipped or understaffed. And there was always some purpose – employment, general literacy or the demands for higher education n mind – whenever a school was established. Today, nothing more than the desire to award contracts dictates the pace.
> Address at the Conference on Falling Standards in Education, December 30, 1996.

Similarly, in Tuvalu, a small Island State in the Pacific Ocean, the Minister of Education had cause to report to the United Nations that:

> Universal access to basic education is a key priority for Tuvalu, and significant progress has been made. However, we are concerned about the decline in the quality and standards of education in our schools. This decline is linked to a combination of factors, particularly the inadequacy of human and financial resources. To address these issues, a national education forum will be convened later this year and to be followed by a round table meeting with development partners to determine appropriate actions.
> Statement Delivered by The Honorable Dr. Alesana K Seluka, Minister of Education and Sports and Minister of Health, Tuvalu, At the United Nations General Assembly Special Session on Children Friday, May 10, 2002.

Even industry leaders had an opinion or so to state, such as this one from the MD, Guinness Nigeria Ltd,

> "Nigerian education was of very high standard, but now the standard is falling, it is sad. People are now sending their children abroad to attend schools. This is unfortunate for Nigeria…I mean that the future of Nigeria depends on young men and women of talent needed to take over with good education. But constant strike by university lecturers (ASUU), cult activities, lack of funding mean that potentialities of youths can't be developed. You and me send our children abroad to study. This is not good. We'll want to develop..."
> Managing Director, Guinness Nigeria Plc, Mr. Keith Richards, Interview with Vanguard newspaper, June 26, 2003.

Thus the common perception by leaders is that there is a decline in the quality of education. Yet contradictorily, the same leaders identify leadership as the main factor in the decline of this quality!

In any event, I intend to argue that it is not the quality of education that is ***declining***, but the expectations of the society that are ***rising***. Indeed the quality of education has risen tremendously over the years. To develop and be part of the development process, we need to renegotiate our perception of education and knowledge and their role in development.

Education and Development

The social and economic development of nations is fundamentally an education process in which people learn to create new institutions, use new technologies, cope with their environment, and alter their patterns of behavior. Education and schooling improve the capabilities of individuals and the capacity of institutions, and become a catalyst for all the closely interrelated economic, social, cultural, and demographic changes that are defined as national development. The extent to which this is done at the level of social service depends on the equitable distribution of education resources, and most importantly, ***shared meanings*** about the role of education in social development.

Thus if opportunities for schooling are unevenly distributed across population segments through inequitable selection practices, the formal education system may perpetuate and legitimize divisions based on gender, status, wealth, or socioeconomic role. Nonetheless, as a whole, education (including nonformal education as well as formal schooling) is a process of providing enlightenment and skills, as demonstrated by the profound influences of education on individual aspirations and achievements.

Education at all levels contributes to economic growth through imparting general attitudes and disciplines and specific skills necessary for a variety of workplaces. Education also contributes to economic growth by improving health, reducing fertility, and—possibly—by contributing to political stability. Although the link between education and labor productivity is not entirely clear, general knowledge and learning skills acquired in school are usually assumed to make for more flexible workers capable of acquiring new skills and adapting to new working environments. A virtuous cycle is said to be created: "greater skills lead to progressively greater benefits from the introduction of new technology which, in turn, will lead to the further development of human resources" (ADB 1998, p. 195). The relevance of the education system to the labor market, thus, lies most fundamentally in its ability to produce a literate, disciplined, flexible labor force through high-quality, universal, basic education. As an economy continues to develop and new technology is applied to production, the demand for workers with more and better education increases. Thus, economies with export oriented industries have higher education requirements than those continuing with traditional agriculture and commerce.

There has been a long standing debate about the contribution educational investment makes to economic growth. For a now familiar set of reasons there is no single answer to the question "how much does has education contribute to economic growth" and even less to the question "how much does education con tribute to development." It would be surprising if there were. The relationships between educational investment and economic growth are complicated by many intervening variables which interact in different ways in different national economies at different points in time. And, of course, definitions of the characteristics of development are not stable either. But this does not mean that in either case we cannot reach inferences from the large volume of studies that have been undertaken. Rather we have to recognize that what may be true under certain circumstances may not be true under others and that the role education plays in supporting growth and development is one which is constantly evolving.

The economic literature focuses on measurable returns to educational investment to the individual and to society as a whole. Historical and sociological perspectives emphasize more the interactive relationships between educational development and economic change. At the lowest levels some measure of economic development often appears as a pre-cursor to the development of school systems in recognizably modern forms - infrastructural investment has to have taken place and economic surpluses are needed to provide the resources to pay for a school system. As an education system is established it may begin to catalyze further economic development. Thus, as Foster has pointed out (Foster 1987:94), the significance of increased schooling as an instrument of economic development may be highly variable over time. Expansion may have substantial economic and developmental pay-off at some stages and not at others. Some types of educational provision (at different levels, of different orientations, of different qualities) may have much greater effects than others.

The early studies of Denison (1962, 1967, 1979), Harbison and Myers (1964) and Schultz (1961) are well known. Denison approached the problem of how much education contributes to economic growth by attributing a proportion of economic growth not explained by increases in capital, labor and productive land to improvements arising from increased educational levels in the labor force. This produced results suggesting that 23% of US economic growth was a result of

educational investment between 1930 and 1960, and 15% for the period from 1950 to 1962, and 11% for 1948 to 1973. This kind of analysis claims to provide estimates of both the direct contribution of education and the indirect benefits that arise from advances in knowledge. The latter are argued to be responsible for about 29% of growth in Denison's last study thus attributing 40% (29%+ 11 %) to improvements in human capital and education broadly defined (Hicks 1987: 102). When the approach was applied to other countries the results varied widely - from 2% to 25% in a group of developed countries and from 1% to 16% in a group of developing countries (Psacharopoulos and Woodhall 1985:16). Bowman (1980) suggested that in over 22 countries where estimates could be made for the period 1950-62 education made a direct contribution to economic growth of more than 10% in only four. She also noted that the residual to be explained seemed to be greatest the higher the economic growth rate but that the contribution of education seemed to be smaller where growth rates were high. Others (e.g. Christensen and Jorgenson (1969)) have argued that if inputs and outputs are more completely specified than in the Denison model the residual to be explained is much more modest in size than suggested and, by implication, the contribution of education is over-estimated.

Several other studies (Michaelowa, 2000; Psacharopoulos, 1980; Saha, 1991; Fagerlind and Saha, 1989; Schultz, 1961, 1980, and 1981) further have demonstrated the relationships between education and economic levels of development among societies. For example, Becker (1964) found the return of investment in college education in the U.S. higher than the rate of return on alternative investments. Denison (1979) observes that education accounted for 0.5 percent of the 2.4 percent of the growth in national income per worker in the non-residential business sector in the U.S. Schultz (1980) reinforces his original thesis by arguing that the modernization of the economies of both advanced and less developed countries was due to the decrease in farmland and an increase in the mobilization of human resources. Also, Schultz (1981) asserts that because of improved farm technology, farmers cultivated less acreage for more agricultural productivity. Therefore, Schultz stresses the significance of upgrading the quality of the population through education in order to improve the economic conditions of poor societies.

In a study conducted in 44 countries using the human capital approach, Psacharopoulos (1981) (cited in Fagerlind and Saha, 1989) substantiated Schultz's argument by conducting a survey on the rates of return to educational investment. He found that first, primary education reveals the highest social and private returns. Secondly, private returns are higher than social returns, particularly at the university level. Thirdly, all rates of return to investment in education exceed the rates of return in alternative investment in capital. And finally, developing countries' rates of return to investment in education are higher than those of advanced industrialized countries at comparable levels.

Accordingly, from the early 1960's up to the mid 1970's, governments in developed and less developed countries encouraged investment in education to enhance the quality of human productivity.

However, by the late 1970's, lack of economic growth in most parts of the world slowed governments' investment in education, especially, as researchers started to question the feasibility of human capital theory as the basis for a possible

development strategy (Webster, 1984; Psacharopoulos and Woodhall, 1985; Fagerlind and Saha, 1989). Researchers no longer accepted that increased educational expenditure with a related increase in participation rates was enough to enhance economic productivity both in developed and less developed countries (Fagerlind and Saha, 1989).

According to Agbor (2000), some philosophers, scientists, social scientists, and planners incline to identify development with social structures found in countries that are highly industrialized and advanced in education, science and technology (Rowstow, 1990). Some writers (Harrison, 1988; Inkeles and Smith 1974) regard development as the process of changing a basically traditional society into a modern one. Harrison (1988) contends that development is the same as modernization. According to Harrison, development is "a far-reaching, continuous, and positively evaluated change in the totality of human experience" (p. xiii-xiv). However, Harrison sees development as what is actually happening in modernization. According to Harrison, "Development, then, is always a valued state, which may or may not have been achieved in some other social context, and which may not even be achievable" (p.xiii-xiv).

Thus, criticisms of the human capital theory have usually cantered on the assumptions underlying the theory itself. First, the theory assumes that there is a perfect market for labor. In other words, it assumes that better educated and more skilled people obtain better jobs and are eventually more productive—a condition that does not prevail in the real world. Second, the human capital theory does not consider factors other than education, such as job satisfaction and working conditions, which could contribute to higher worker productivity. Third, the human capital theory fails to recognize education as a screening or filtering device (Psacharopoulos and Woodhall, 1985). That is to say, employers merely use education to identify workers with superior ability and personal attributes; while education may identify productive capacity of employees it may not directly improve workers' skills and productivity.

Thus Fagerlind and Saha (1989) contend that a dialectical process occurs between education and society. Simply, put, education is a product of society and at the same time, acts continually upon society to effect change. Each of the principal dimensions of development, such as the economic, political, and social dimensions acts upon education, and education in turn acts upon each of these dimensions. So, the contribution of education to the development process depends upon the nature of the other dimensions of development in a given society at a particular time.

Quality and Standards of Education Issue

We have therefore seen how tenuous the argument that there is a definitive link between education and economic development. As the literature suggests, there are other factors that must be taken into consideration if education is to be used as an index of human development. But perhaps we have been rather hasty in jumping into the fry without first operationalizing what we mean by education. Instead of attempting at a pointless exercise of defining education, let us look at the functions of education. These include:

- *Socialization* – transmitting general and specialized knowledge to be productive members of society

- *Transmission of Existing Culture from one generation to the next where culture* refers to the ways of perceiving, thinking, believing and behaving that characterize the members and *the transmission of culture* helps maintain the social structure which is stratified in Western cultures. The structure is also maintained through the division of labor – determined by education.
- *Social Control/Custodial – Social control* refers to the rules that are set up for individuals who step out of line, and *custodial* refers to the care of children during the day.
- *Placement of Individuals/Streaming* - streaming refers to the placement of students into different programs based on their aptitude, ability, or special interests and needs. *Advocates* of streaming say it is an efficient use of resources when students are taught at their own ability levels and all children can succeed (practicing meritocracy), while *critics* maintain it is harmful to students through the process of labeling (particularly for economically disadvantaged groups).

To make matters more complicated, theorists have made a distinction between the *purpose* of education and the *functions* of education.[1] A *purpose* is the fundamental goal of the process—an end to be achieved. *Functions* are other outcomes that may occur as a natural result of the process—byproducts or consequences of schooling.

For example, some teachers may believe that the transmission of knowledge is the primary *purpose* of education, while the transfer of knowledge from school to the real world is something that happens naturally as a consequence of possessing that knowledge—a *function* of education. Because a purpose is an expressed goal, more effort is put into attaining it. Functions are assumed to occur without directed effort. For this reason it's valuable to figure out which outcomes can be considered a fundamental purpose of education.[2]

Teachers who hold a more humanistic view of the purpose of education often experience stress because the *meaning* they assign to education differs greatly from the *meaning* assigned by society or their institution. It is clear in listening to the language of education that its primary focus is on knowledge and teaching rather than on the learner. *Students are expected to conform to schools rather than schools serving the needs of students.*

Stopping to identify and agree upon a fundamental purpose or purposes of education is rare.[3] Further, total obsession with education as a means of social development by policy makers eclipses other factors that are necessary in making judgements about the quality of education. In the first instance, the role of demography is rarely taken into account in the debates about the declining this quality. Let us look at three tables that reflect the enrolment patterns of children in Kano State schools in Table 1.

Table 1: Kano State Schools Profiles over years

[1] Callaway, R. (1979) Teachers' Beliefs Concerning Values and the Functions and Purposes of Schooling, Eric Document Reproduction Service No. ED 177 110.
[2] Judith Lloyd Yero (2002), *The Meaning of Education*. Teacher's Mind Resources, Online at http://www.teachersmind.com/education.htm
[3] Ibid.

Kano State School Profile, 1968

Type of School	Number	Enrolment	Teachers	Ratio
Primary Schools	241	49,580	1,670	30
Craft Schools	1	217	15	15
Technical Training School	1	277	22	13
Secondary Grammar Schools	9	1,863	98	19
Secondary Commercial School	1	156	6	26
Teacher Training Schools	5	1,421	58	25
Higher School Certificate	2	110	n/a	-

School Statistics and Directory of Kano State Government, 1968. Kano, Government Printer.

Kano State Schools Profile, 1978

Type of School	Number	Enrolment	Teachers	Ratio
Primary Schools	3,032	659,927	16,291	41
Technical/Vocational Center	3	1,439	107	13
Secondary Grammar Schools	28	15,680	672	23
Secondary Commercial Schools	2	1,277	23	56
Teacher Training Schools	24	16,954	563	30

Kano State Statistical Year Book, 1979. Kano, Government Printer.

Kano State Schools Profile, 1983

Type of School	Number	Enrolment	Teachers	Ratio
Primary Schools	3,082	1,258,775	16,718	75
Technical/Vocational Center	22	4,536	110	41
Secondary Grammar Schools	181	70,579	1,510	47
Secondary Commercial Schools	4	4,293	n/a	
Teacher Training Schools	27	24,272	74	33

Kano State Statistical Year Book, 1983. Kano, Government Printer.

It is clear that there was a running battle with demography. In 1968 the pupil-teacher ratio in Kano State primary schools was 30; ten years later it was 41, and barely five years later, it had shot to 75. The pupils themselves had increased—from less than 50,000 in 1968 to over one million in 1983. All this was at declining economic fortunes of the country that made budget announcements in education mere talks. This is because despite the government's drive to ensure more students in schools, it is doubtful if the same government would absorb the entire applicants to primary and secondary schools. Witness how notices keep coming up during admission exercises indicating that admission to schools is closed.

At the secondary level, the most significant innovation was in the establishment of Kano State Science Secondary Schools, which between them from 1977 to 2000 had produced thousands of scientists, doctors, engineers, nurses, architects and other professionals. Yet there has not been corresponding industrial and economic growth in Kano that will utilize these products. It is argued that the "technological" society policy makers envisage countries to move into was a product of consumer technology and acquisition, rather than the sustained R&D efforts of a community of scientists.

It is also clear from the available data that the rate of return on investment in education could not be used as an index of development—certainly not in the case of Kano. Table 2 shows why this is so.

Table 2: Enrolments in Kano State[4]

Year	Primary	Secondary
1997	996,735	231,093
1998	1,113,260	241,064
1999	899,986	225,903

As can be seen from the table, and without any attempt at direct correlation, there is a huge disparity in the number of children in primary schools and those in secondary schools. With primary school enrolment approaching or even exceeding one million in a three year period, the corresponding number of secondary school students rarely tops the quarter million mark. Thus there is a considerable waste of human resource from the primary schools to the secondary schools.[5] Thus if as much as 75% of the primary school pupils are wasted, then there is a big question mark on the efficacy of education as a means of national development.

It is thus significant that despite all the rhetoric about the falling standards of education, none of the critics of the present quality of education can provide any empirically validated evidence for either downturn of education, or falling quality. Precisely because no one is yet to up with a criteria to determine what is low quality. However, let us see if we can come up with some indicators.

In determining the quality of education, at least four broad indicators provide the road map to measuring the quality of education. These include:

- attainment (mathematics, reading, science, social studies, etc);
- success and transition (dropout rates, completion of upper secondary education, participation rates in tertiary education);
- monitoring of school education (parental participation, evaluation and steering of school education);
- resources and structures (educational expenditure per student, education and training of teachers, participation rates in pre-primary education, number of students per computer or other technical equipment).

Each of these contributes one way or other towards the quality of education, and must be factored in any debate or discussion about the falling standards of education.

If education is to be universal, and meet all the varied goals, its forms must be so diverse as to defy definition - but a recent and comprehensive attempt is offered in

[4] Based on field data collected for the World Bank's Public Expenditure Review in Kano, 2000 by the author. Abuja, World Bank.

[5] I emphasize that these are not cohort transitions; just parallel enrolments. To obtain the cohorts need earlier data, which is difficult to obtain due to the politicized nature of any statistical information in Nigeria. My arguments remain valid if the parallel enrolments figures are maintained in the two education sectors.

Learning: The Treasure Within, the 1996 report to UNESCO of the International Commission on Education for the 21st Century:

Education comprises of four basic pillars: *learning to know*, which encompasses general knowledge and the will to learn; *learning to do*, which involves the acquisition of formal or informal occupational skills, in the context of an individual's experience and community; *learning to live together*, which incorporates developing an understanding of other people and appreciation of interdependence; and learning **to** *be*, which enables an individual to develop his/her personality and to act with greater autonomy, judgment and personal responsibility.

Conclusions

Let me conclude by further looking at statistics and research evidence to support education for development paradigm. Various studies have found that:

- farmers (in 18 low-income countries) with four years of primary education produced 8% more (1980, *Farmer Education and Farm Efficiency,* World Bank);
- a one-year increase in schooling can increase wages by more than 10% - and has raised farm output and income by over 2% (Korea) and 5% (Malaysia) (*World Development Report* 1991, pp. 52-53);
- a 1% improvement in national literacy is directly associated with a two-year gain in life expectancy (Samuel Preston, 1976, *Mortality Patterns in National Populations*, Academic, N.Y.);
- education is directly related to health: the higher the parents' education, the less likely their child will die (Cochrane et al., 1980, *The Effects of Education on Health*, World Bank);
- children of educated mothers are more likely to be enrolled in school, and to attain higher education (1986, *Investing in Children*, World Bank, pp. 7-8);
- women's education leads to better family health, especially for the children and themselves, partly because of higher family income but also due to the mother's increased knowledge and use of better health and nutritional practices (*World Development Report 1993: Investing in Health*).

What then can we conclude from the literature on the relationships between education and economic growth? First, that there is no single answer to the question some wish to pose - there are many answers ***depending on circumstance***, developmental status and the specifications of the variables.

Second, the direct policy implications of macro level research are very limited. They are constrained by dependence on historical relationships which may or may not persist, the level of aggregation is often so high that effective and ineffective years of schooling are treated as similar, and the application of findings from individual countries or groups to other countries is analytically hazardous.

Third, far more studies imply, suggest and demonstrate plausible and positive links between educational investment and economic growth than suggest that the effects are nonexistent. Even fewer studies suggest a negative relationship. It would be pessimistic in the extreme to suggest that the widespread faith in educational investment as a component of economic development was an aberration that could

persist so extensively for so long if it did not contain elements of truth no matter how difficult these are to demonstrate.

Fourth, there is evidence in many studies of productivity benefits derived from educational investment. The most policy relevant ones appear to be those based on recent data which relate to circumstances in particular countries which can give some guidance on the most worthwhile types of educational interventions. Placing them in context is a necessary pre-condition for confidence in conclusions that can be drawn.

Fifth, educational effects are associated with various externalities that may have economic consequences. They may also extend to influencing income distribution and wider social inequalities through dynamic processes that need careful unraveling.

Sixth, there are many methodological questions in the analysis of relationships between education and economic development which have only partial resolutions. These are extensively debated in the literature (e.g. Psacharopoulos et al 1983, Little 1986, Hough 1992) and need no repetition here. The results of the various studies have to be understood in the light of these.

With clear waste of resources, as we have seen (and using Kano State as a case study), we have to look at other means of providing knowledge, rather than education, to facilitate development. It is clear that education is state enterprise, and it is simply not working; or working for only privileged urban, genderized few. A new approach to empowering the individual through indigenous knowledge-based practices—and let us not settle for this "vocational" orientation stuff—might provide ways of making individuals more functional and the State education is currently able to make them.

Living in an increasingly globalized world means learner now acquire a level of knowledge not covered by the formal and conventional education. The networked society ensure passive acquisition of development ideals without the development. Thus the proliferation of internet cafes, business centers, mobile communications, at least in urban centers, confer on the learning a massive resource of incidental and passive learning resource that inherently makes such learner more adept at integrating the passive curriculum into his personal road-map of indigenous knowledge practices. The real challenge of development is empowering the individual to harness what I call the incidental curriculum to enable him attain a higher development goal that what has passed before. Thus the standard of education, instead of falling, is rising because the society has become zero tolerant to individuals incapable of flowing with the globalized tide of knowledge.

Development efforts in Nigeria therefore should focus attention on rising the quality of knowledge available though communities, rather than bemoaning the falling standards of education—which have never been defined with the interest of the individual in mind in the first place. Doing so is the only way to provide that the State genuinely cares about the quality of knowledge of the citizen, rather than how he can fit in with an increasingly bloated "out of vacancy" civil service.

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