

## DIVERSIFYING SECONDARY SCHOOL CURRICULA IN DEVELOPING COUNTRIES: AN IMPLEMENTATION HISTORY AND SOME POLICY OPTIONS\*

S. HEYNEMAN

Education and Training Design Division, Economic Development Institute, The World Bank,  
Washington D.C. 20433, U.S.A.

**Abstract** — This paper describes the history of the diversified curriculum debate. The first section briefly refers to the precedents for such discussions during the colonial era. A second section describes the institutional environment behind the beginning of bilateral and multilateral assistance to diversified curricula in 1960. The third section summarizes the changes in thinking about diversified curricula which have occurred in the World Bank over the last 20 years. This third section, itself, is divided into three subsections: (i) the original World Bank rationales for diversified education (1960-1970); (ii) the implementation history (1970-1980); and (iii) post-1980 strategies, including financing the research whose results are discussed at this meeting. The paper concludes with a fourth section which refers to the options on diversified education ahead.

### I. THE COLONIAL ERA

Since the time of W. Bryant Mumford, Tanganyikan commissioner of education in the 1930s, opinions have varied widely on the kind of education considered to be the most 'practical' in the African context. Some have felt that, since choices have to be made, the most 'practical' was one where students concentrated — even limited — their education to actually using tools; where students would work on something tangible — an agricultural garden, a fishing boat, a piece of furniture. Others have felt that, since choices have to be made, first priority should be placed upon the generalizable skills known as academic skills — in particular those of mathematics, science and language. This classic difference of opinion on what constitutes the 'most practical' education was personified among American educators by the famous W.E.B. du Bois/Booker T.

Washington debates in the 1920s and has been played out since then in countries as diverse as China and Brazil.

In none of the four principal European African colonial histories was there a simple model of education. What there were of them, schools were either 'adaptationist' (where curriculum was manual and terminal); or they were 'equivalent' to the metropole (where curriculum was academic and could lead to further education) (Heyneman, 1971, 1972). Neither category was pure. Adaptationist schools did include rudimentary literary and numerical skills. And Equivalency schools — Achimota (in Ghana), Bo (in Sierra Leone), William Ponty (in Senegal), Livingstonia (in Malawi) — had their gardens, their workshops and, contrary to current popular conception, their local plants, rocks and animal species to teach scientific principles (Foster, 1965).

In the minds of education specialists — whether Portuguese, British, French or English — the agricultural gardens and vocational workshops were justified on one, or more, of three grounds:

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\*Paper presented at the Seminar on Diversified Secondary Education and Development, Arusha, Tanzania, 14-15 December, 1984. The views contained in this paper are those of the author alone and do not necessarily represent the World Bank or any of its affiliated institutions.

- (i) To meet the *economic* 'demands of the labor market' by providing sufficient practice in a manual skill so that school leavers would be advantaged when trying to earn a living. They were to be advantaged in one of two ways — by practising what they had learned specifically or by generalizing the 'practical principles' of what they had learned to other tasks.
- (ii) To generate vocational *interests* so that they might be pursued during leisure time (not necessarily for profit). This was identical to the rationale for considering art and music as essential ingredients of a 'well-rounded education'.
- (iii) To ameliorate what were widely perceived to be irrationally negative *attitudes* held by young people against manual work or rural livelihood.

These three categories of arguments in one form or another have been with us since the beginning of the century. They played a large role in justifying external assistance to diversified curriculum in the 1960s, including assistance from the World Bank. And the three categories of argument are no less pertinent to the discussion today.

## II. ERA OF DEVELOPMENT ASSISTANCE

Bilateral and multilateral agencies have been involved in programs of assistance to secondary education over the last twenty years. By-and-large their policies have consistently been to *not* choose between the two versions of 'the practical' referred to in paragraph one. Instead their policies have been to support both through a single institution called diversified secondary school. Reasons differed, however, from one national context to the next.

In the early 1960s the British and the Europeans were still debating their post World War II 'comprehensive' school reforms. Specialized grammar schools (for university) and vocational schools (which were terminal) were being merged into a single institution. This reform was accompanied by heated political

discussion. Conservatives generally argued that comprehensive schools lowered academic standards; liberals and socialists argued that comprehensive schools were necessary to achieve equal opportunity for working class children. Also, behind European and British conceptions of appropriate policy lay their recent experience of educational expansion. Diversified school curricula in comprehensive schools occurred in Europe at the same time as did an expansion in the proportion of the age cohort expected to be in school at all. European and British development assistance agencies therefore associated having diversified secondary school curricula with expanding educational opportunity and social democratization, i.e. a higher percentage of working class youth in school. These two assumptions they brought with them to the African context twenty years ago.

The assumptions of the North Americans were different. In North America comprehensive schools had been the traditional model. All youth were enrolled, and all had access to university. There were no terminal institutions in the European sense. What the Americans brought to Africa in the early 1960s was the self-assured belief that all subjects were necessary and all subjects were appropriate in all schools. Despite the fact that most African countries had only 2% of their secondary school age cohort enrolled in the early 1960s, diversified curricula — costing 30–40% more — were supported in Africa by the North Americans not because it was new or revolutionary but because, to them, it was normal.

## III. CHANGES IN ATTITUDE WITHIN THE WORLD BANK

### *Original rationales: 1960–1970*

Originally the view of education was that of a lever by which developing countries could directly engineer their 'productive sectors'. For example, agricultural extension services were known to require trained manpower; and from the earliest time, the World Bank supported national efforts to provide agricultural training because specific skill training was seen as one of those critical aspects of education which could lead directly to improvements in produc-

tion. The areas of education most likely to stimulate economic development were identified by the President of the Bank in an internal memorandum to the Executive Directors in October, 1963. 'The bank and IDA', he said,

should be prepared to consider financing a part of the capital requirements of priority education projects designed to produce trained manpower to forward economic development. In applying this criterion, the Bank and IDA should concentrate their attention, at least at the present stage, on projects in the fields of (a) vocational and technical education and training at various levels, and (b) general secondary education. Other kinds of education projects would be considered only in exceptional cases.

Thus in the beginning, levels and curricular specializations were established *a priori*. The perceived purpose was to 'fill critical gaps' in a country's manpower development. But this implied something more than just additional schools; it also implied that there was something lacking, something deficient about the present curriculum which required reform.

The 1971 World Bank Education Sector Policy Paper underscored the reasons for some of these reforms. The opinion at that time was that:

the education systems in developing countries are designed for an elite . . . usually a landed aristocracy, commercial upper class or cadre of civil servants; a substantial portion of the students in school are being miseducated; and the content of primary and secondary courses . . . is remote from the experience of today's student, especially the rural peasant child.

(World Bank, 1971)

Similar assessments played a role in the 1974 Sector Policy Paper. That paper argued that current educational content was 'dysfunctional' because it was 'more theoretical and abstract and less practical'. The educational system in developing countries was seen as being imbalanced. It was believed that there was an over-production of literacy or general skills and an under-production of specific job-related skills. The recommended solution was a 're-orientation' of the curriculum from top to bottom so as 'to ensure that graduates can be employed'. In 1974, improving the quality of education was assumed to be synonymous with making education 'more practical and relevant by re-orientating the content away from

academic and toward vocational purposes' (World Bank, 1974).

By 1980, however, World Bank policy had shifted. According to the Sector Policy Paper of that year, 'Attempts to "ruralize" the curriculum have proved difficult and have tended to create a dual system of education . . . agricultural programs in secondary schools . . . have generally had disappointing results', and the experience with diversification would suggest 'caution'.

What had happened in the interim? What had caused the change in attitude in the decade of the 1970s, from one of certainty about the necessity for curriculum diversification to one of caution? The answer lies not in debates over curriculum philosophy, but rather in the practical experiences of implementation.

#### *Implementation history: 1970-1980*

Over the last two decades the World Bank has assisted over 90 countries in the field of education. Two hundred and sixty-four projects have been approved for a lending program of US\$10.3 billion. Twenty-two percent (US\$2.3 billion) has been in the field of secondary diversified education.

By the late 1970s it was clear that the workshop activities situated in general academic secondary schools were having difficulties. Thirty eight percent of the projects were reported to have had major changes in curricular objectives during implementation. The rate of utilization of workshop facilities averaged 58%. In 40% new curriculum was unavailable; in 75% equipment was reported as having 'maintenance problems' and an average utilization rate of 47%. Half the projects had experienced problems of teacher availability; one third of the projects reported a lack of materials and supplies.

Problems were not experienced in all projects equally or in all workshops equally. Commerce was one of the exceptions. Though no less complicated in terms of materials, curricula or teacher training, commercial skills (typing, accounting, etc.) appear to have a more obvious link to employment than wood or metalshop skills. Up to 1979, no project had yet reported a scarcity of teachers or curriculum in commercial subjects.

The implementation of workshop subjects, moreover, appeared to stand in stark contrast with the secondary schools' general purpose. No project had reported a scarcity of teachers for mathematics or an under-utilization of academic facilities. Nor was there any major utilization problem for secondary school student places. In fact the most common problem had been the opposite. Secondary school projects experienced, on average, 10% more students than had been projected at the time of project appraisal. Fifty-nine projects had contained legal covenants for limiting student enrolment (in order to preserve quality). One-third of the covenants were reported as 'major problems' by 1980. Moreover, 44% of the 74 legal covenants governing curriculum reform in projects over the same time period (1962–1980) were not fully met. Secondary education appeared to be a solid investment; but by 1980, diversified secondary education — as a strategy — was clearly in trouble.

#### *Strategy post-1980*

The World Bank Sector Policy Paper of 1980 publicly acknowledged three of these basic troubles. These were:

*First*, diversified curricula are complex and expensive; they require new teachers, new curricula, additional physical resources, and high maintenance costs and skills. In countries where diversified curricula were considered a replacement for conventional secondary schools, the cost was found to be prohibitive.

*Second*, projects that had unrealistic employment objectives had unsatisfactory outcomes. There has been no consistent empirical indication of changes in the attitude of students toward labor; in the majority of projects, students still preferred academic fields to vocational training.

*Finally*, fitting an occupational curriculum attuned to the needs of a local economy is a delicate task in which miscalculations may leave expensive facilities under-used. Because the amount of specialized work included in the curriculum may be insufficient for the formation of skills, the diversified secondary school is a questionable method for training large numbers in specific vocational skills.

(World Bank, 1980)

However, none of the issues raised publicly included specific strategies for making improvements. This was because there were alternate — and competing — theories as to the cause of the problem. One theory was that the problem lay in a lack of good planning.

According to this theory, if curriculum diversification was conducted more carefully, if equipment was made simpler, if subjects were properly examined as criteria for further education, if workshop subject teachers were to receive salary incentives, then implementation problems could be overcome.

Another theory held that school systems had differing managerial capabilities. It held that some countries with high enrolment rates, more resources, and more experience, such as Portugal, Korea and Tunisia, could be expected to manage workshops efficiently; other countries were not yet sufficiently developed to do so. This theory derived credibility from the fact that workshop implementation problems were no less serious than were the problems of establishing and maintaining chemistry and physics laboratories in secondary schools.

A third theory was based upon economic principles. It held that implementation problems were a function of the comparative labor market returns to be expected from one type of subject versus another. According to this theory, the rationales for workshops' subjects were wrong. Even though the rationales stated, *ad nauseam*, that diversified curricula would put students at an advantage in the labor market, the fact was that the opposite was true. Students who had more academic skills were apt to be at an advantage; students who had more vocational skills would be at a disadvantage. According to this third theory, these differences in economic returns, with higher returns for academic subjects, lowered incentives within developing countries to implement the workshop portion of the diversified curricula.

Because these three alternative theories of 'what was wrong' were all credible, the Bank could not achieve a consensus. Because there was no consensus there could be no uniform strategy. What was agreed upon, however, was the need for research; and in particular, research on the question of economic benefits.

The initial results from this research are now public. Students who have experienced diversified curricular options have learned more vocational-type skills than others, but they do not appear to be at a labor market advantage. Though it costs anywhere from 30 to 40% more

to educate a secondary school student through a diversified curriculum than through an academic curriculum, the evidence suggests that there is no identifiable economic return which would justify this additional investment.

IV. OPTIONS AHEAD

Like many policy issues on which research is conducted, results, while important, are overtaken by events. This is true too in the case of diversified curriculum. One out of three African countries has experienced negative growth rates over the last two decades. Four out of ten have experienced growth rates of less than one percent per annum. Agricultural output has stagnated. Since 70-90% of the population derives its income from agriculture, stagnation (coupled with population growth) has meant real losses in revenue among the poorest people. Current account deficits have climbed from US\$ 1.5 billion to US\$ 8 billion; external debt from US\$ 6 billion to US\$ 32 billion; debt service from 6 to 12%; and foreign exchange reserves from a comfortable margin in 1970, to approximately two months' reserve today. In many countries, moreover, there is starvation.

This financial crisis directly affects education. For example, the expenditure per student in low income by comparison to high income countries has been shifting radically for the worse. This is displayed in Fig. 1. In 1960 the ratio of per student expenditures was 14:1. OECD countries were able to spend 14 times more per student than were IDA countries. By 1970 the difference had grown to 22:1. By 1980 it had grown to 50:1. Today OECD countries are able to spend more than 50 times the amount per child enrolled in school as can a typical IDA country.

IDA countries, including those from East Africa, will have to make very hard choices with respect to financing their education systems. Behind these choices lie two assumptions which I wish were not true, but in all probability will be true:

- (i) The proportion of the national budgets devoted to education will not grow. In other words, it is unlikely that new resources can be found by decreasing

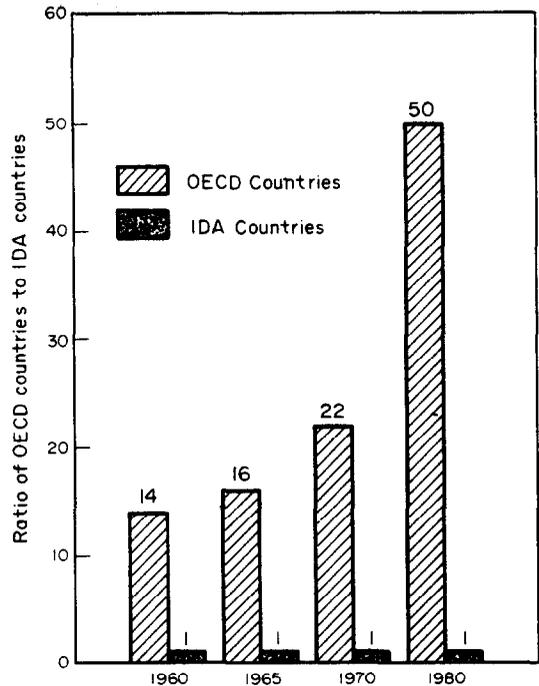


Fig. 1. Monetary investment per elementary school pupil: difference between OECD and IDA countries, 1960-1980.

the portion of the national budget devoted to other sectors.

- (ii) The size of the national budgets will remain stagnant. In other words, economic growth prospects and the prospects for increases in external assistance appear relatively unlikely.

This means that the Education Sector in developing countries will have to find ways to employ its resources more effectively. One method it will have to consider is to teach fewer subjects. To be sure, these choices are difficult, but they are not choices faced by low income countries alone. The United States is in the midst of making these same choices about the breadth of its curriculum. Resources per student are much larger in the United States, but they are not limitless. School districts are faced with the difficult problem of choosing mathematics or sports programs, science education or drivers' education. They are making these choices not on the basis of evidence of labor market performance. In-

stead, they are making these choices on the basis of priorities. They cannot afford to teach the full variety of skills they would like to teach; they therefore have to limit the skills they do teach to basic skills.

This is the same kind of difficult choice faced by countries in East Africa. Education Sectors in these situations will have to choose between four options. Should they:

- concentrate upon metalshop and woodshop and cut science and mathematics out of the school curriculum?
- concentrate upon science and mathematics and cut secondary school workshops out of the curriculum?
- increase the number of students enrolled in secondary schools by perhaps as many as one-third by cutting secondary school workshops out of the curriculum?
- leave the breadth of the curriculum as it is and so experience continued implementation problems, continued decline of educational quality, and continued ceilings on enrolment levels resulting from high secondary school unit costs?

The essence of the issue is not simply whether one kind of curriculum can be proven to have more economic impact than another. I know of no consistent economic evidence on this question from any country; nor do I know of any country which bases pedagogical decisions solely on economic rates of return.

Also, there is no such thing as non-useful knowledge. It is *all* worth knowing — woodshop, metalshop, poetry, music, astronomy, botany. And since the economic evidence has yet to be conclusive, economically all subjects

must be worth studying — history, poetry, woodworking. In fact, there is no limit to the list of subjects worthy of being included in a curriculum in East Africa, if there were no resource constraints. But just because there is no unuseful knowledge does not mean there is no priority to knowledge. Some skills are basic to education. Other skills are interesting and worthwhile, but are optional.

The basic question today has not really changed since the origin of the controversy at the turn of the century. What constitutes basic education? A choice has to be made. Should a country — as is now done — spend three times more on teaching woodshop than on mathematics? Should a country — as is now done — spend 3% of its total national recurrent budget on secondary school workshops? The choice of how many subjects should be offered and how they should be equipped is not a trivial issue. Furthermore, because of the international economic situation, unlike in the past, the breadth and the depth of curriculum cannot be decided solely by educators.

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