

THE STATUS OF RESEARCH IN SECONDARY EDUCATION IN LATIN AMERICA*

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SECONDARY EDUCATION IN LATIN AMERICA HAS NOT RECEIVED A GREAT DEAL of attention by researchers and English language journals. Most of the research readily available in the U.S. is of a descriptive nature; that which is more specifically focused is reported in a wide variety of national and organizational journals difficult to collect. This review attempts to suggest representative studies from a variety of sources in order to give the broadest coverage possible in a short paper.

Research coverage of specific areas is fragmentary. Studies are seldom conducted within a research framework and the potential cumulative effect is lost. National data and analyses based on such data tend to point up broad problem areas. Although there are countries in Latin America which are exceptions to some items in any listing of these broad problems, the catalog is useful as one attempts to judge the relevance of individual studies.

Comment by both foreign and Latin American observers suggests the following broad problem areas of concern in secondary education in most countries:

1. Inadequately prepared and part-time teachers and administrators
2. Outmoded and restrictive teaching methods
3. Shortage of instructional materials, libraries, laboratories
4. Rigid controls over curriculum structure and content, usually from national ministries.
5. Emphasis upon "classical" study and university preparation
6. Dependence upon central government for support and educational leadership
7. Inadequate financing of education
8. High student dropout rates
9. Absence of school services such as guidance, student records, placement, etc.
10. A restrictive social view of the status and role of the secondary school

Some of the works which cover the whole spectrum of concern are extremely useful in understanding many of the specific problems. The publications commissioned by the United States Department of Health, Education, and Welfare covering individual countries are helpful, particularly the one on Chile (21). A recent survey conducted by USAID in Ecuador deals with a sampling

* Assistance in preparing this article was rendered by Mrs. Jane Weisel.

of secondary schools in considerable depth (29). Other general descriptive reporting of the educational situation in various countries has been issued by Ministries of Education as documents and annual reports (1, 5, 15, 16, 17, 19, 23, 27, 31, 32, 33, 40, 42, 45) and by international and regional organizations (8).

These and other reports sometimes emphasize rapid improvement in terms of percentages of the population enrolled in the secondary schools. Throughout, however, there is increasing evidence of a lack of contemporary data on gross numbers of adult illiterates, dysfunctionality of school programs, professional preparation of teachers, and instructional materials (6, 12, 14, 47, 49, 50).

Beyond the above general descriptive surveys and studies, the collection of research reporting becomes thin. The writer's experience is that there are many Latin Americans researching specific problems in the secondary schools. Many of their findings are unpublished or may be found only in periodicals of local and limited circulation. Available information indicates that there is little research directed toward relating education to the community or, indeed, research with a local flavor. Chile is one example where experimental programs have heavily influenced the structure of national education (21, 60). Even here, however, the experimental environment has been loosely controlled, and implementation and diffusion of experimental practice occurred before results were adequately tested.

Most of the experimental or pilot schools have been established in highly atypical situations and their multiplication on a national basis is of doubtful validity. Publications of national ministries show that the secondary school programs remain prescriptive and local experimentation, while growing in some countries, is still rare and limited.

SECONDARY EDUCATION AS A DEVELOPMENT AGENT

In much of Latin America the secondary schools are getting attention as agencies for economic development. Although research on the matter is understandably rare, official documents from ministries and planning groups show a general acceptance of the relationship between increasing numbers of secondary graduates and economic progress.

Aside from contemporary comment on technical-vocational schools, the literature shows a more philosophical than scientific bent. Most of the general comment is coming from non-Latin sources although statistical analyses of manpower needs and outputs by planners and ministries in Latin America are supplemented by writings by both Latin Americans and others (9, 26, 48, 58, 62). The problem is extremely complicated. Traditionally, the secondary schools of

Latin America have served social status needs rather than economic needs. This situation is not only peculiar to Latin America, but to developing nations which will be groping for solutions for a long time to come.

VOCATIONAL-TECHNICAL SECONDARY EDUCATION

Some countries are attempting to prescribe vocationally-oriented programs for a larger proportion of secondary school students. (Of late, U.S. missions have evidenced some disenchantment with direct support of vocational-technical programs.) In many countries, these efforts are still directed toward the establishment of specialized schools. A few are working toward comprehensive programs. Descriptive accounts are readily available. Mexico, Brazil, and Venezuela have placed particular emphasis upon this area of secondary school work. The evidence is that those schools are more inclined to utilize tests and guidance than are the general secondary schools (28, 29, 44, 59). Broad studies of need in agriculture point up the need for work experience, improved instruction and facilities, and change in attitudes toward the concept of work (30, 37, 41, 46).

In general, the vocational-technical schools are not gaining very rapidly in enrollment or status. Those with a commercial emphasis are gaining, largely on the strength of students' interest in white-collar jobs and high female enrollment (11). Normal schools, included here because they are supposedly specialized schools, are also gaining in enrollment. One should not conclude that this means a greater number of youth are interested in elementary teaching, however. In many countries normal schools are seen as an easier route to obtaining secondary certificates and gaining admission to certain faculties of the university. Normal schools and their characteristics are discussed in all the general country surveys cited (36).

TEACHERS

Teachers in secondary schools in Latin America, although talked about a great deal, receive little real attention or study. Some studies of teacher characteristics are available (3, 25) and general descriptions of education in a country report on training programs, preparation levels, age, sex, etc. However, teachers are not often given attention as a professional group with a positive potential in relation to secondary education. The reason for this may be found in the nature of the secondary systems in much of Latin America which are characterized by part-time teaching, non-professional leadership, and a fragmented curriculum. Responsibility for teaching preparation in most of the area is left to the universities and the university does not identify teacher preparation as important to its prestige. The faculty responsible for pre-service education typically operates within humanities and psychology and, even in its own sphere,

may receive minimal attention. This lack of status also tends to affect negatively the quality and degree of dedication to study of the youth who enroll. Together these problems keep most Latin American universities from assuming a leadership role in education.

The evidence is that the existing potential for preparing teachers is completely inadequate in both quantitative and qualitative terms. Efforts in Chile, Ecuador and in many other countries are concerned with in-service programs and have Ministry plans for improvement (43). All too often there is little coordination between a Ministry of Education and the preparing institutions. The lack of quality preparation of present teachers is well documented in the literature as is the problem of adequate numbers (34). This double problem seems to call for more experimentation and concern for programming than has yet been the case.

One researcher raises an interesting point in suggesting that general economic development and industrialization may have an adverse effect upon teacher recruitment for the secondary schools (24). This kind of study should be of continuing interest as economic change takes place.

CURRICULUM AND MATERIALS

Generalized comment often mentions program articulation with elementary and higher education. Much of the current effort appears to be directed toward organizational changes with little attention to course content and structure. Chile, for example, is extending "basic education" upward to include grades 7 and 8 and reserving secondary education for university preparation and terminal vocational study. Each Ministry of Education has very specific curriculum plans to which schools must conform. These are usually in outline form and without adequate content to serve as scope and sequence guides to instruction (40).

One study reports only 8% of the total secondary school age group is in school in Latin America (38). It seems that basic changes in methodology, materials, and course content will need to accompany organizational changes if this percentage is to be raised substantially.

There is considerable interest in improving the instructional materials situation in Latin America. Although concern is primarily focused upon elementary and higher education, the secondary schools will benefit from any achievement in this regard. Broad studies (7, 10) have been followed by country studies in Peru (55) and Chile (60) and these make specific recommendations for improvement. Brazil has been a leader in the development and distribution of kits for science instruction and other packaging of materials.

Although there is some effort to improve programs in social sciences, there is little reporting of value. Exceptions may be comparative studies of social

studies in Peru and Chile (56) and Mexico (13). The social sciences, one of the least developed curriculum areas, is also one of the most culturally explosive. Within a country there may be little concern about social science instruction. Non-national investigators are often not considered competent to evaluate that area of the program.

THE SECONDARY SCHOOL STUDENT

Most of the writing of observers in Latin America and reporting in official documents takes note of socio-economic characteristics of secondary school students. These tend to demonstrate the essential urban character of secondary education, as well as support the notion that this level is the prerogative of the middle class or aspirants to such categorization. Representative studies are published by CSUCA (8) and the U.S. Department of Health, Education, and Welfare (21, 51). Others, and often the most useful, are unpublished studies such as those from Ecuador (29), Paraguay (33), and Chile (52).

Studies of occupational choice have been made in Brazil, Jamaica, Nicaragua, Venezuela, and Colombia (24, 35, 53, 61). Concern for improved guidance services is evident in all the general surveys, as is the need for better instruments of measurement. Representative specific attention has been given to these problems in Central America (2) and Brazil (4). Most official ministry documents also express interest in guidance services although usually from a rather narrow viewpoint. One study shows the utility of selection and guidance in dramatically reducing dropout rates in technical schools (59). A 1957 study in Colombia (18) may be useful to researchers interested in the effect of early student choice between technical education and course programs associated with university preparation.

SECONDARY EDUCATION IN SOCIETY

This area is dealt with in virtually all literature on Latin America, regardless of the primary intent, content, or title of the work. One of the most useful of the general books on the subject, by Havighurst and collaborators, is supplemented by a wide variety of studies of representative value (20, 22, 39, 54, 57). One problem with this area of research interest is that the schools themselves are very nearly helpless to change the view in which they are held. Attention to social status and role is seldom given by professional educators in Latin America, except in broad philosophical terms.

MAJOR PROBLEMS TO SYSTEMATIC RESEARCH

The writer has suggested that research in secondary education in Latin

America has not come of age as yet. There are several reasons for this, most of which are applicable to general research in education and the social sciences. A primary problem is the underdevelopment of the social sciences and of their research methodologies. The tools and skills of research have not been considered vital to university teaching, and the professions arising from the social sciences are new to Latin America or are held in relatively low esteem. Skills of observation, instruments of measurement, data manipulation, and analysis (as opposed to lengthy philosophic consideration of the education process) are rarely found in critical organisms such as education ministries or university faculties concerned with education as a professional effort. Competent foreign social scientists have produced sound studies all over Latin America, but few of these have included Latin Americans as peer members of the study teams. Foreign comment on fields so much a part of the culture does not seem to have a great deal of impact in Latin America. Until the social sciences become more widespread and more scientific, research coverage will continue to be fragmentary and the cumulative effect will be minimal.

A second block to systematic research results from what amounts to a cloistering of secondary education. The large private and church-connected schools have only very recently shown an interest in even the most pedestrian kinds of self-evaluation. This is changing but the modification has not yet resulted in more than collection of statistics. Organizations, such as that of private and church schools in Chile (the *Federación de Investigación y Desarrollo de Educación* in Santiago) show promise as a future source of studies.

The public schools have been nearly as "cloistered" as the private. The pressure for evaluation of programs and products has been impeded by the presence of large numbers of private and church schools, the low enrollment at the secondary level, and the perceived role of secondary education as an instrument for maintaining class distinctions.

Another part of the relative invisibility of secondary education is the absence, in most countries, of a profession specifically identifiable with the schools. Teachers may teach in two or more schools, attend or teach in the university, or work in government or other white-collar positions. Even the rectors and other administrative staff are often part-time. Thus, there is rarely a school staff dedicated to the program, students, or community of the school. This is not to suggest that the presence of such dedicated staff would result in research. It does seem reasonable to assume, however, that this condition, together with others mentioned, tends to remove the secondary schools from the main stream of life in much of Latin America and so affect the amount of research attention they have received. One may add that U.S.-based donor and technical missions have historically been disinclined toward research and have not been particularly active at the secondary level except for the vocational-technical area.

SUGGESTIONS FOR FUTURE RESEARCH PATTERNS

Most of the data available currently are gross national data resulting from the accounting activities of ministries of education. Such data have limited value because they are often inaccurate and present a composite which is misleading if applied to individual municipalities, provinces, and communities. One can learn about as much of value about education by reading contemporary comment by foreign social scientists as he can from documents and articles on education itself.

Yet the economist, interested in the production of manpower for the national economy, is likely to deal with gross national data and ignore certain socio-cultural concerns. Other social scientists may tend to suggest educational change on the basis of micro studies. Professional educators may place an emphasis upon extending the availability of education to new groups and upon organizational and methodological reforms. Perhaps there is a way to bring the various concerns and approaches together.

First, there need to be more in-depth surveys of the educational reality in a country. The collection and analysis of data about education need to be improved: teacher characteristics; costs per student; costs by program emphasis; space utilization; full-time equivalent staff; state of libraries, laboratories, and classrooms; student characteristics; community characteristics—to list only a few of the kinds of basic data needed. To do this properly on a nation-wide basis would be difficult. To rely upon current techniques for such data collection is unsatisfactory. The writer suggests that a stratified sampling be employed and that studies be conducted in depth. Such studies could serve as training for ministry personnel in the kind of survey techniques that must be used if research of a more sophisticated nature is to have a reasonable base. Studies of this kind should have assistance from the economist, the sociologist and cultural anthropologist, and the educator in order to result in a comprehensive description of the school and its environment.

Given comprehensive information, there should emerge from across the sample some reasonably clear problems for experimental research and action programs. If care were taken in the selection of problems for research and if similar topics were researched across the sample, the cumulative effect of study should be significant.

Suppose one of the problems listed at the beginning of this article were to be attacked; e.g., dropout rates. One might decide to experiment with a variety of changes to determine the effect upon student retention. Whether innovation involved guidance, curriculum change, new methods, materials or media, in-service programs for teachers, or any combination of these, the same innovation should be tested throughout the sample. Should an innovation show signi-

ficantly differing effects in urban as opposed to rural schools, the study could be replicated in urban and rural schools not a part of the sample. The comprehensive study, recommended here, might serve as a basis for in-service programs for teachers and administrators. Many possibilities arise—the point is that each study have a solid data and descriptive base and the peculiar intrests of researchers from various disciplines be served without destroying the cumulative effect.

A specific study might serve as a further illustration. John Searles of Pennsylvania State University is engaged in a study of the verbal behavior of teachers in secondary schools in Costa Rica. He is applying a theory of instruction dealing with instructional episodes in the classroom and analysis of these episodes in both the cognitive and affective domains. Should this research effort pay off in understanding classroom climate and patterns of verbal operation in the secondary classroom in Costa Rica, it should be repeated in the kind of differing environments identified through sampling procedures. These and similar kinds of studies, replicated before and after educational innovation, are needed to adequately test educational practice.

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