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STATE OF THE ART ON CHILDREN'S PRIMARY EDUCATION CONTRIBUTIONS

IN THE AREAS OF WORK AND PRODUCTIVITY

(Version 1)

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INTRODUCTION

Countries in Latin America and in the Caribbean have experienced deep transformations during recent decades. Beginning in the sixties, the strategy for development was based on industrialization. Countries in that region, and among them the most diverse types of regimes, adhered to this strategy. From the standpoint of this strategy for development, education was considered to be a democratizing element and great hopes were placed on the possibility that education would generate adequate human resources for the modernization of the region's nations.

During this period, many types of educational reforms took place. Several countries increased the amount of mandatory years of schooling and the number of students enrolled in the educational system increased significantly. Nevertheless, it would seem that the goal of eradicating illiteracy from Latin America within the expected period of time will not be accomplished and schooling has not been able to deal fairly with children belonging to the most underprivileged groups. These issues have led to a questioning about quality of education.

This paper focuses on the concern for the effectiveness of education as regards its ability to: a) provide the entire population of the country with minimal intellectual and moral tools, b) satisfy the basic levels of personal aspiration concerning the possibility of acquiring knowledge and the capability of entering social life with good chances for success and, c)

contribute to the overall productive development of the country. The main concern of this paper deals with the contribution of elementary or primary education in the areas of work and productivity. More specifically, through research performed in Latin America and in the Caribbean, this paper seeks to answer the following questions:

What types of learning do children acquire in elementary education?

What types of learning do children retain once they leave the school system?

How useful is school learning in the work place?

What work and productivity benefits, individual as well as social, are derived from the schooling levels of elementary education?

What issues should be taken into account in elementary education policies in order to improve its efficiency as regards the work place?

What types of research priorities should be taken into account in order to improve the contributions of elementary or primary education to the areas of work and productivity?

In order to achieve this purpose, several related research papers, state-of-the-art reviews and bibliographical reviews produced both in Latin America and in the Caribbean within the last ten years were taken into account. The research theory used in this paper is the one postulated by Vielle (1). Most of the research papers covered were identified through the

Red Latinoamericana de Información y Documentación en Educación (REDUC) [the Latin American Network for Educational Information and Documentation] published by CIDE.

This paper has been organized according to the following sections: 1) Learning in elementary or primary education. Here we will present a unifying perspective of what education seeks, what it produces, some of the modalities of elementary education and some of the main considerations to be taken into account for educational planning, 2) The Labor Market and Elementary Education. Here we will cover the worth and the usefulness of elementary education from the standpoint of the work place. This section concludes with the implications of the elementary education policies pursued as perceived from the standpoint of the labor market, 3) The contributions of elementary education in the areas of work and productivity. Although there is little research on these issues, in this section we present some tentative proposals regarding the benefits of elementary education. This last section also includes some suggestions for future research.

1.- LEARNING IN THE ELEMENTARY SCHOOL

Considering the strategies for development adopted in Latin America, schooling promoted an increase in the levels of education as well as the elimination of social discrimination with regard to access to and perseverance in schools. There have been significant increases in the school levels attained by the children although, only approximately 50% of them finish school. At present, elementary education has been the object of different types of criticism, concentrating mainly on questioning its fairness and the types of learning that it produces. Consequently, most of the research done in Latin America concentrates on condemning this situation and there is little research done on learning vis-à-vis the work place. In this section, we focus on the objectives of primary or elementary education. Next there is an analysis of what the school systems produce, followed by some of the modalities used as applied to elementary education. The section ends with a synthesis of considerations for educational policies.

1.1.- The Objectives of Education

Several educational reforms have taken place in Latin America in the last decades. In general, they have been defined on the basis of normative theoretical principles and not through processes of reflection and study since the proposals have been made in the offices and at the desks of planners and technicians from the Ministries of Education. They have only been expressed through written documentation with very little or no internal or external participation at all (2). The formulation of the objectives does not vary greatly from one proposal to the next.

In general, the stated objectives are rather broad and they constitute ideological proposals more than statements of specific objectives.

Formulations (such as: how to democratize education, eradicating illiteracy, bridging the gap between manual and intellectual work) are common in all types of proposals. Larger differences are found in the explanation of the role of education in society and the values that are recognized in general declarations.

Each one of the reforms has postulated a new course curriculum. In such a proposal not only information (content) has been included, but guidelines for orientation have also been given regarding the methodology to be used in order to foster cognitive, affective, psychomotor and social types of learning for the complete development of children. Included in this idea of the complete development of children is training children for life.

Seen from the perspective of the curriculum, the different courses emphasize types of learning related to language (reading and writing), mathematics, natural sciences, social sciences and some technological and artistic forms of knowledge. Learning experiences not only strive for mastery of certain areas, but also expect the development of certain skills, attitudes and habits for the self-development of the children. For instance, in several curricula, the children are expected to acquire the ability to learn how to learn, as well as to develop logical thinking and creativity. At another stage, curricula present a series of objectives directed toward the personal, vocational and social development of the children. These objectives constitute the explicit curriculum advanced by the educational system.

1.2.- What the School System Produces

One of the crucial aspects emphasized by many of the research papers written in Latin America is the contradiction that exists between the aims of the school system and what it ultimately produces. Several of these papers suggest the existence of a hidden curriculum which has important implications

in the perceptions, behavior, the feelings and the values that the children hold regarding society and the work place.

The hidden curriculum is based on educational practices. What is conveyed through them are: middle class moral values which tend to preserve the status quo (3), the contents are presented as if they were universal values (4); idealizations that are difficult to relate to the concrete world (5); occupational expectations that include activities belonging to the middle and upper class strata and which recognize very little worth in manual work (6), and perceptions that affect the motivation that children may have concerning their own development (7). Afterwards, the real curriculum shows preference for certain types of learning which thereby conflict with a series of aspirations contained in the explicit curriculum, wrapped in an intellectualizing garb which pretends to be aseptic and does not take into account the impact of the child's true life and surroundings (8).

Learning achieved by children while following the explicit curriculum is not very satisfactory. Research done in different Latin American countries has shown that 100% of the objectives that are considered to be fundamental or as minimal requirements are achieved by less than half of the students (9). A recent study undertaken in Chile shows that approximately 60% of the objectives in fourth grade, and approximately 57% of those defined for the eighth elementary grade, are successfully achieved (10). In some cases, alarming results have been detected. For instance, in a study that was undertaken in Venezuela, the results on the students belonging to the large scale school circuits showed that 30 to 50% of those students graduate from school without being able to write their own names; of those students, approximately 30% don't know how to count from 1 to 20, and they can't write the numbers from 1 to 9 (11).

Beyond this, other types of research indicate that the students do not acquire the ability to learn how to learn. They show, for instance, that: a) children between the ages of 12 and 14 years of age (12) make very poor use of study skills and lack study habits; b) there are great limitations in the acquisition of individual learning habits, that is to say, the children do not have a clear grasp of what their new role should be in directed study nor in personalized education (13), c) as the children's level of education increases, their self-concept for success and school adjustment decreases abruptly (14) and d) children who have achieved a good level of reading comprehension have very little practice in it and show very little interest in using it for purposes other than reading their school texts (15).

On the other hand, an outstanding aspect of the research done on educational achievement deals with the difference in the results obtained from different groups of students. These differences in learning show a very high level of stratification which is systematically unfavorable to children coming from low-level socio-economic groups as well as to those of rural or ethnically differentiated groups (16). Additionally, it has been perceived that school systems don't eliminate cultural stereotypes which are unfavorable to girls for their development in society and in the workplace (17).

Several research papers show that the failures of children coming from underprivileged groups are attributable to school environment more than to their lack of ability. Among factors pertaining to school environment we find the practice of testing. It would seem that these, in addition to not reflecting the children's actual level of proficiency, condition the children's future careers through perceptions of success or failure. For example, in a study in which lower class children participated and whose school level varied between third and eighth grade, they were asked mathematical questions in two ways. One so-called informal whereby the

children would answer according to their own method of calculating and the other, where the children would give answers in a formal test. The children's achievement was higher in the informal than in the formal tests (18). On the other hand, and according to social psychology, the perception that students have about their own success or failure has very important implications about behavior and psychological consequences such as their expectations for success and their feelings of self-esteem (19).

This line of study has led to the development of a theory of academic failure in the poor sectors of Latin America where it is assumed that the school system reproduces the social order not so much by transmitting an ideology which legitimizes such an order, but rather because they process legitimately the failures of the children belonging to those underprivileged sectors (20).

Furthermore, reasons such as the poor preparation of the teachers and the low expectations of success that they have regarding their students' success and the homework that the children produce (21) have been given as an explanation for the difference in achievement. Nevertheless, a frequent explanation is that educational learning experiences are disconnected from the reality that those children live. It is for the purpose of resolving this last aspect that some experiments have been undertaken, based on certain modalities of elementary education; this is an issue that is dealt with next.

1.3.- Alternative Modalities in Elementary Education.

Some of the existing concerns regarding education in Latin America deal with the achievement of a better relationship between the school and the work place and with the issue that education, wherever it may take place, should respond to real needs. In response to these concerns there have been some experiments in elementary education, among which "escuela productiva"

("productive schooling") and "nuclearización educativa" (the "nuclear educational system") should be mentioned.

Productivity-related activities have been incorporated into the curriculum in order to improve the relationship between the school and the work place. By means of productivity-oriented activities included in primary education, the aim is to develop in children certain attitudes towards work, to stimulate their creativity, to develop their moral and esthetic values and a consciousness about the social and the personal worth inherent in the process of productivity. Consequently, the purpose of primary education is a general introduction to the work place instead of a form of preparation for a specific type of occupation (22).

Despite the importance of this type of experiment, there is very little information about them as well as a lack of formal evaluations. Consequently, through some case studies, it is possible to visualize some of the results obtained in these experiments particularly in those that took place in the so-called productivity-oriented schools.

One of the fundamental problems of incorporating productivity-related activities in the educational process lies in how they should be integrated with the educational activities of the school curriculum. For instance, a recent study that was undertaken in Brazil (23), covering 138 schools, showed that teaching activities are parallel or that one of them is subordinated to the other. A different study that was undertaken in a school for poor children in the same country showed that the quality of that school is low, which confirms the dissociation that exists between educational and productivity-oriented activities (24). It has been pointed out that in Peru there are certain shortcomings in the infrastructure, resources and personnel, as well as lack of administrative control, all of which has made it impossible to integrate education and work in Educación Básica Laboral [Work-oriented Elementary Education] (25).

On the other hand, productivity-oriented schools emphasize the role of education within a context that allows for the integration of productive work in the curriculum. In other words, a productivity-oriented school is an establishment where educational and productivity-oriented activities influence one another. These types of schools have been implemented mostly in the rural areas.

In these schools, curriculum is particularly influenced by the environmental needs surrounding them and by the goal of selecting activities that will facilitate certain attitudes and types of behavior that will be considered to be of value for the students attending such schools. Thus in Panama, the program is centered on exact sciences, human sciences and technology. The latter varies according to local conditions (industry, agriculture, crafts, commerce, tourism or fishing).

It has been pointed out that one of the first conclusions of the experience obtained with productivity-oriented schools in Panama has resulted not only in deep changes in the educational system but in providing a solution to population dispersal and to insufficient productivity in the countryside by means of introducing new technologies (26). It would also seem that in Honduras this type of school shows promise (27). Nevertheless, it is vitally important to rely on formal evaluations that would allow us to determine with a certain degree of certainty the true projections of this approach. This is particularly interesting since these experiments are not without criticism. Among these we can point out: that they provide students with inferior education, that costs would be very high and teachers wouldn't be prepared to incorporate both types of activities into the curriculum (28).

On the other hand, "Nuclearización Educativa" strives to incorporate education with the specific needs of a given community. For instance, in Central America, "Nuclearización Educativa" is conceived as a techno-administrative organization of the school system which would integrate a group

of schools and communities in a concentrical manner. The schools are located in a specific geographical area which allows for the ordered development of qualitative and quantitative improvement activities in education. The "educational nuclei" strives to generate permanent interaction between the schools and the community in order to contribute to the improvement of the socio-economical and the cultural conditions of the population that it responds to and in accordance with its true needs and problems.

Experiments in this system have been undertaken in many Latin American countries, particularly in the rural areas (29). In spite of the fact that there are very few formal evaluations of these projects, several problems have been detected. These have to do with the integration of the educational programs with those of the community, educational practices in which traditional methods are so deeply rooted that they don't allow for pedagogical innovations, high drop-out rates and almost no relationship between the central schools and the satellite or affiliated ones (30). On the other hand, several questions have been raised regarding the experiments with this "nuclearization" system in the region. Among these are:

What conditions allow for the "nuclearized" structuring of educational services?

To what extent is it appropriate to continue working with limited-scope projects or with large scale ones?

What should be the differential characteristics of the rural "nuclei" as opposed to the urban ones?

How is it possible to obtain greater participation from the community in such programs?

What is the relationship between the success of a "nuclearized" program and the decentralization of educational administration? (31)

Consequently, new experiments in elementary education are not without serious limitations. Moreover, they confirm the high degree of complexity involved in overcoming present concerns. Some of the main considerations about future policies of elementary education in relationship to their external efficiency are considered in the following summary.

1.4.- Main Considerations for Policies

The following group of considerations is presented as a way of summarizing the present state of elementary education in Latin America and the Caribbean as regards work and productivity. They could be used as parts of a diagnosis of the design of future actions oriented towards improving elementary education in this region. It is important to point out that many of them are dependent on others which correspond to an analysis about the internal efficiency of educational systems. What has been attempted here is to highlight those that are more typically related to external efficiency. Those considerations are:

1) The coverage of elementary education has grown significantly. Nevertheless, the goal of eradicating illiteracy in the region during the present century will not be achieved. More than 14 million children remain outside of primary education (32).

2) Elementary education has functioned as a closed system whereby planning and course curriculum have been drafted with little or no participation by social agents other than the specialists within the Ministries of Education.

3) What school education conveys isn't what it wants to teach. Several studies have reiterated the existence of a hidden curriculum resulting in learning products that are contradictory to those that are sought. Likewise, upon analyzing the dominance of the objectives pursued through the curriculum, it has been found that the curricular structure used is such that the values and behaviors that develop are different than the ones sought by the official programs (33).

4) The level of achievement of objectives in the subjects of the curriculum is not satisfactory. Assessments undertaken in several countries show that there is a big gap between what is expected and what is achieved by the children; in many cases, the level of achievement falls well below 50%. It has also been pointed out that in many countries, most of the children do not attain the skills that are considered to be basic.

5) Elementary school doesn't manage to develop self-learning abilities. On the contrary, the school promotes learning based on memorization and repetition, even in subjects considered to be the foundation of cognitive development of children (mathematics, reading and writing). As an illustration, in mathematics children have a very low level of achievement in the solution of word problems (34).

6) Schooling levels constitute a relevant variable in the achievement of those objectives that are considered to be fundamental. For instance, spelling errors decrease between the third and fifth grades (35) and the fourth grade objectives that presented a high level of difficulty were achieved satisfactorily in eighth grade (36).

7) Elementary education constitutes a mechanism which discriminates or reproduces differences among social groups. Systematically, those whose performance is lower or those having higher drop-out levels correspond to children of lower socio-economic levels: campesinos, or from socially underprivileged ethnic groups. For instance, it has been recorded that approximately 20% of the children belonging to socially marginal segments of the population complete their elementary education (37) but the figure is only 4.6% for the Indian population (38). Furthermore, the school system has been recognized as the most efficient mechanism of selection, operating when children reach 13 years of age (39) and it has been found that by the time a child reaches the eighth grade, a great part of his academic future has been determined (40).

8) What the school teaches produces learning and expectations that are in conflict with the reality of many of the children. The school is prepared to teach an ideal child who can study calmly and with no need to work (41). This promotes expectations about future roles which in many cases enter into conflict with paternal images or with those of the socio-cultural context where they live (42). The need to have a flexible curriculum that would allow efficient service to the culturally differentiated groups has been frequently pointed out (43).

9) In spite of the fact that elementary education aims at preparing children for life, very little of the information learned and retained is useful for work and productivity. In general, assessments of educational systems use the evaluation of the norm as a frame of reference (44), applied to cognitive learning and in transversal studies. There is a notable lack of research on retention and about utilization of what is learned in school in the work place.

10) The integration of educational and productivity activities into the school curriculum would seem to be one of the greatest difficulties faced by innovative modalities in elementary education. Although it would seem that such an alternative has made important progress in some countries such as Panama, the lack of formal evaluations prevents us from visualizing with a reasonable degree of assurance the advantages and the limitations of this approach.

2.- LABOR MARKET AND BASIC EDUCATION

In recent decades, changes in the labor market have produced a different assessment and function to elementary education. According to research done in Latin America, the evolution of the labor market is mainly affected by the following aspects: 1) population growth, 2) a quantitative increase in schooling and, 3) changes in the economy. Next, and for the purpose of determining some of the implications for elementary education from the perspective of the work place, this section will deal with a brief synthesis concerning the outcome of research done in this area. More attention will be paid to the economic changes that have come about and what this implies in the debate on education and employment. Finally, a set of consequences will be presented which should be taken into consideration when drafting policies regarding children's elementary or primary education seen from the regional perspective of the work place.

2.1.- Population Growth

Population increase greatly affects the Economically Active Population (EAP) of Latin America. Whether they have gone through the educational system or not, an average of 2.5 million young people enter the labor market. Approximately one third of the EAP is made up of people who have entered into productive activities within the last ten years (45).

2.2.- Increase in Schooling

The quantitative increase in schooling has had its impact on the EAP of Latin America in the last decades. For example, in 1960, unschooled children who clearly constituted the largest group (32.7%) were matched in 1970 with those who have had 4 to 6 years of schooling and there has been an decrease in those who didn't finish their primary education. More recent data coming from

some countries allows for confirmation of this trend. In Chile, 79% of those aged 15 attended school in 1960, this figure increased to 84% in 1980. That change is even more significant when we consider those who are 18 years old: here the increase goes from 47% to 60%. In a parallel fashion, the group of 15 year olds that was enrolled in school and which had already completed 10 or more years in 1960 constituted 2.5% of the total, whereas this figure reached 23.8% in 1980. The corresponding figures for those aged 18 are 22.5% and 76.4% respectively. Panama shows similar trends except that the figures are lower (46).

2.3.- Economic Changes

An analysis of the economic changes that have occurred in the last decades shows that they took place on the basis of the strategy for development that was adopted in the 50's and the 60's as an international consensus, for which reason such strategy was accepted by the most diverse regimes in the region.

The strategy for development has been characterized by: an acceleration in the accumulation of capital, with financial income and technological innovations coming from foreign sources. These helped make the transition from predominantly agrarian economies oriented towards export markets, to predominantly urban industrial economies oriented towards the internal markets. All of this was accompanied by a continuous increase in the capability for productivity as well as in national economic self-reliance. Consequently, the former would provide employment for the entire population as well as income corresponding to an adequate level of consensus and social services. In this context, education would have the role of training a large amount of qualified personnel needed for an accelerated modernization based on urbanization and industrialization, so that many people would have to undertake activities in the industrial sector that are very different from the type of work that characterizes traditional economies (47).

The economies of Latin America have experienced big changes; nevertheless, these have not responded to the expectations for strategies for development that were hoped for. In recent decades, there has been a decrease in GNP as well as in the labor force available for agriculture, but there has been an increase in both industry and the services (48). Growth in productivity has been firm in industry and in agriculture although they have been extremely reduced in the area of services. The phenomenon of the lack of productivity in the service sector has been the cause of a great debate about the heterogeneous nature of the employment market which corresponds to a structural heterogeneity of the economy which also affects other social variables.

This heterogeneity has been detected mainly through great differences in productivity occurring within the same area of activity. Such differences in productivity have highlighted the coexistence of "primitive" and "modern" types of productivity and the fact that the modern types do not tend to eliminate the traditional ones, but in fact absorb for themselves the EAP. This has resulted in the existence of an informal segment in the labor market (49), or in general terms, in the theory of segmented labor markets as opposed to the neo-classical theory which postulates that there is a certain type of homogeneity and mobility in the labor factor (50).

Consequently, as a means of interpretation of the heterogeneity in the labor market which is found in the majority of the Latin American countries, several specialists have postulated the existence of a so-called formal, modern or structured section which is characterized by strong capitalistic penetration, high rates of work productivity, intensive use of capital, relatively high salaries, high levels of qualified labor, governed by labor-management relations based on the processes of collective negotiations. On the other hand, there would be an informal or non-structured section,

variable in size but frequently amounting to approximately half of the EAP in the countries of the region. Its main characteristics are: low work productivity, low salaries, weak capital investment, lack of worker benefits, use of unsophisticated technologies, and a poorly qualified labor force (51). Next, the segmented labor markets present a series of inconsistencies existing between the occupational stratum, the level of education and the levels of income.

2.4.- Some Implications for Elementary Education

Upon considering the three factors mentioned above, as well as their interrelations, it is possible to identify a series of implications that have been pointed out by research done on the valuation and the functionality of elementary education. Some of the main ones are:

1) Since the EAP is made up of and increased by a significant proportion of young people, this causes the labor force to be quickly renewed and adapted by the conditions of the young people who enter the labor market, these being the skills acquired during their years of schooling, and the social and cultural characteristics of their original environment (52). Consequently, the type and the level of education that children receive affects in a significant way the characteristics of the region's labor force.

2) There is a greater demand for higher levels of schooling and, also, greater demand for levels of education in job positions that do not require them, this has received the Spanish name of "credencialismo" [the granting of superfluous degrees] (53). Consequently, the economic worth of primary education has decreased except as regards low-productivity activities (54).

3) The rates of return are questionable from the standpoint of the relationship that exists between education and enrollment (55). Although some

studies show that there is a relationship between education and enrollment (56), rates of return used as indicators of the efficiency of education can be misleading if one considers that the quality of education varies from one geographical area to the other; that people do not move from area to area in response to differences in the quality [of education] and that quality is influenced by the local resources of the school (57). On the other hand, the educational system favors the development of general abilities which the market place rewards differently (58).

4) Education operates as a criterium in recruiting practices but has very little impact in mobility within a company. Workers with little schooling are faced with less possibilities of employment in the formal sector (59) and with greater difficulties of gaining access to more advanced technological levels (60). Primarily, elementary education contributes to an increase in the labor market by means of migration (61). Occupational mobility within a company doesn't seem to depend on years of schooling but rather on a variety of behaviors and of attitudes that can render the stay of a worker more desirable in the company (discipline, confidence, social relations, loyalty to the company) (62).

5) There is no system of occupational classification that would allow the precise definition of what types of learning should be stressed by the educational system. On the one hand, the formal sector is based on techniques of occupational analysis broken down into categories and levels of abilities. The categories refer to the relationship that exists between the duties of the workers as regards handling of data or information, with individuals and with objects, machines or equipment. The levels represent different functions that a worker can achieve within each category (63).

On the other hand, the informal sector requires a multifaceted type of background that will allow the worker to face successfully a diversity of tasks, many of them different in nature (64). Furthermore, this background should include the possibility of self-employment, something that seems to be removed from formal education, as is the case with the self-employed workers (65).

6) Employment policy, as seen from the standpoint of jobs, would seem to be more important than educational opportunities in general (66). Among other things, the job situation shows that young people are the ones who suffer the greater impact of unemployment and underemployment and, paradoxically in many cases, they are the ones with schooling levels that are much higher than primary or elementary education (67). Although it is true that through education other aims are sought, such as acquiring a type of culture that will allow them to consume as well as to create cultural products, and to be in the condition to participate in progressively complex societies, it is no less true that education generates work expectations which later on are frustrated by the work place. This fact in particular has many implications in the underprivileged sectors that consider education as "the means" to obtain better living conditions and social mobility.

7) It is very important to develop new models of assessment of human resources. Classical models present problems (68) and it has been suggested that these planners should avoid using linear or other oversimplified models which do not take into account social and economic changes (69), particularly, if one considers that at times of crisis there is a devaluation of expropriatory education (70).

In short, when looking at elementary education from the standpoint of the work place, one can see how in recent decades its economic worth and its functionality have decreased in the ability to provide access to many

occupations of the formal sector except for those of lower productivity. On the other hand, in the informal sector, schooling levels also seem to be of little relevance. This is so even without taking into account the diversity of occupations where such a relationship is obviously irrelevant given the type of occupations that are performed (for instance, street sellers, parking attendants). It has been observed that in informal urban shops there is also a lack of significance between formal education and qualification levels (71). Finally, the high unemployment and underemployment rates for young people in the region reveal the nonfunctionality of education as regards the work place.

3.- ELEMENTARY SCHOOL AND ITS CONTRIBUTIONS TO PRODUCTIVITY

The contributions made by elementary education to the areas of work and productivity have not been widely studied in the region. Although there has been an explicit concern with training children for the type of job that they will eventually undertake, the elementary school has functioned independently. Assessments about different types of learning have centered around the goals of the educational system, basically, on cognitive objectives and, with few exceptions, in aspects dealing with values, emotions and performance drives. On the other hand, most of the research has concentrated on the fairness of the educational system and in the lack of functionality of the school for children belonging to the underprivileged social sector. The absence of research on retention and on the usefulness of learning in work-related activities should also be pointed out.

Consequently, this paper showed that there was a lack of information about this topic. The little research that is available only allows us to postulate in a tentative manner some of the contributions of basic education in the areas of work and productivity. For the most part, this research is exploratory in nature and it should be studied more thoroughly. Among the most important contributions are:

1) The biggest contribution of elementary education is the eradication of illiteracy. It has been shown that in seven of the countries in the region the percentage of illiteracy is identical to that of people who lack schooling and it remains stable when the individuals are 25 years old (73). Consequently, the primary or elementary education of children should be an adequate means to eradicate illiteracy.

2) Elementary education contributes to the development of general cognitive abilities that should shorten start-up time. Professional training which is oriented to the formal sector and which has predominated in the

strategies for development in the region consists of two types of training: general and specific. Both types of training are manifested in categories and levels of ability that are derived from occupational analysis. General training has manifested itself in 6 levels of general education divided into three lines of development that correspond to: 1) the development of reasoning, 2) mathematical development and 3) language development. Elementary education would cover approximately the two first levels of each one of those lines (74).

4) Elementary education contributes to the development of habits, values and attitudes that are important in job performance. The school is a great socializing agent. Through schooling, individuals not only develop their cognitive abilities but, simultaneously, they develop expectations and perceptions related to their future job performance. Through the hidden curriculum, the school becomes a mechanism of discrimination (75) that would concentrate in the formation of the working class (76).

5) Elementary education facilitates the style of development to be adopted in the countries of the region. If we consider that Latin American manpower is significantly affected by population increase, this allows it to adapt itself more easily to changes required by the strategies for development. Nevertheless, education is not an independent agent for change (77) and it can even foster expectations that cannot be satisfied, which results in frustration and social pressure. Some models of the types of development applied to the region have been produced (78) and, also, a model for the analysis of the relationship between education and work have been proposed, taking into account labor institutions (79).

6) Elementary education doesn't seem to contribute to income redistribution. It has lost its economic worth and, the poorest sectors are the ones that have contributed the most in relative terms.

7) It would seem that elementary education contributes to productivity in the formal sector; on the other hand, it would seem to be of little relevance in the informal sector. Although there is little research, through one study paper it was possible to detect that schooling, particularly as regards the fourth grade level, explained an increase in the productivity of agro-industrial establishments; nevertheless, such effect was not the same for traditional enterprises (80). On the other hand, if we take into account the nature of the majority of the workers in the informal sector, there would be few opportunities to apply general skills either on account of the traditional way in which labor is organized or because of the type of work performed (for example, parking attendants).

8) Elementary education would contribute to having access to a job but not to occupational mobility. According to the employers' practices, schooling levels are important in applying criteria for hiring and mobility, depends on the personal characteristics of the individuals and on their experience.

In conclusion, the contributions of elementary education to the work place are many. Nevertheless, they have not been thoroughly researched. Moreover, education has been functioning as a closed system disconnected from changes that take place in the work place. If we consider that modernization has fostered the strategy for development which will require human resources, both in quantity and in quality, elementary education could contribute by providing general skills which would reduce the start-up time for the new roles of the economy within a context of social equality.

Nevertheless, the structural economic situation which is characterized by unemployment and underemployment, the quantitative increase in schooling, and the stratifying function of the school system have contributed to the loss of the economic worth and the functionality of elementary education both in the work place and in helping social justice. Elementary education has become a fundamental determining factor for the personal, social and vocational

development of each individual. In other words, the schooling levels of elementary education have become a "passport" to gain access to higher productivity occupations and to obtain an occupational certification through a curriculum in the formal system, even though what has been learned is practically unknown; although there is retention, the true usefulness of what is learned at school may not be known.

Undoubtedly, this situation requires more research. In the next section, some proposals will be presented about research aimed at improving the contributions of elementary education to work and productivity.

4.- SUGGESTIONS FOR RESEARCH

In this section, some suggestions will be advanced dealing with the type of research that should be favored in order to improve the contributions of elementary education to the work place and productivity. The aim of these ideas is to present some concerns and questions that may stimulate reflection. The suggestions have been arbitrarily classified into seven areas and their order of appearance does not indicate any type of prioritization; furthermore, it is judged that such studies should be complementary. Each one of the areas will be presented next and each will be justified briefly.

1) Assessment of School Learning. The main concern in this area is the attempt to determine: What is learned in elementary education? and, What is retained from such learning? On the one hand, an important limitation of testing lies in finding instruments that will permit us to obtain useful and relevant information for decision making. In general, cognitive instruments have been developed using norms as frames of reference in the assessment, and there is a remarkable absence of affective and motor instruments which respond to other types of learning. It would seem necessary to develop instruments that not only permit us to describe the children's level of achievement but that also help explain such performance. In addition, there are almost no longitudinal studies that allow us to determine the effects of schooling either within or outside the school system. Finally, this type of research would contribute to overcoming the lack of diagnostics. This aspect has been pointed out as one of the important limitations to planning educational systems (81).

2) Knowing the Work Place. Different types of research have pointed out the complexity of the work place and how little we know about it. Within such complexity, the heterogeneity that exists not only on the occupational level but also the changes that are taking place in the area of work are

highlighted. For instance, a formal and an informal sector have been defined; nevertheless, it hasn't been possible to theoretically conceptualize the informal sector, nor to clearly establish the relationships that exist between them. Neither has it been possible to establish a uniform system of classification for the occupations and thereby, about their main requirements. Some of the questions that may focus this type of concerns are: Are the categories and the levels of the general skills used in the occupational analysis of the formal sector also relevant in the case of the informal sector? Would it be possible to determine occupational groupings according to their nature of work?

On the other hand, how do the many changes, such as scientific and technological ones, modify the roles of the workers? Will the development of computing and computer-science maintain the validity of the categories and the skill levels used in analyzing the occupations of the formal sector of the economy? How are changes in the labor market affecting hiring practices? How are changes in the philosophies of organizations such as the more participatory institutions posing different types of requirements from those of traditional organizations? Answers to these or other questions that would allow us to understand the work place would be helpful in focusing the training of children for their future life in a more realistic context than the present one.

3) The Productivity of Learning. There is no research on the usefulness of acquired knowledge in job performance. Comparative studies should be made on the productivity of workers in the same occupation, in different environments, with different schooling levels while taking into consideration socio-demographic variables. In those comparative studies a variability of jobs should be taken into account as regards the type of duties and the degree of autonomy that the worker maintains within it. This type of research would

allow us to explore, among others, the possibility of systematic differences in the cognitive processes and in the affective predispositions of those who are schooled as opposed to those who aren't.

4) Curriculum Design. Many research papers emphasize the need to rely on a flexible curriculum. This flexibility must respond to education's relevance and pertinence to different social sectors. For instance, there is talk about the need to "ruralize" rural education and about providing the more underprivileged children with real opportunities. In addition, the curricular structure used in the innovations that combine educational and productive activities have revealed serious limitations to their integration. What type of curricular flexibility would be more adequate so that the more underprivileged children wouldn't be exposed to an inferior education? In other words, how is it possible to integrate unity and diversity in a curriculum design so that elementary education will contribute to equality of opportunities? Would it be possible to design curricular alternatives that, on the one hand, would give priority to a set of fundamental learning facilitators and other more specified ones contextualized within the children's reality? Would it be possible to design a system which would certify abilities achieved rather than just legitimizing years spent in school?

5) Educational Media. Educational media play a very important role in the school's educational practices. Among others, the textbooks and the teacher have been emphasized as the main elements that maintain the hidden curriculum. What should the characteristics of the educational media be in order to transform school culture? There are experiences that

[TRANSLATOR'S NOTE: Text is missing between the end of page 30 and the beginning of page 31 of the original Spanish.]

CONCLUSIONS

Primary schools have experienced a great increase during recent decades in Latin America. Almost all of the children attend school but only approximately 50% of them finish. The drop-out rate mainly affects children belonging to the most underprivileged social sectors and there is also considerable heterogeneity in the quality of schools. For these reasons, the school system has been denounced as a stratifying agent which reproduces the existing social order.

Primary schools strive to develop general abilities, habits, attitudes and values with the purpose of preparing children for life. Abilities related to language (reading and writing) and mathematics have been considered to be the foundation of the childrens' development. Through them the cognitive and the intellectual development of children is sought, together with instrumental aspects that condition how other subjects are learned. As a priority, it has also been pointed out that children should acquire abilities for self-learning and the social norms and values of their community. The school system is frequently criticized because its objectives have been formulated with very little participation by social agents other than the specialists within the Ministries of Education.

The usefulness of what is learned in primary school is not very well known. It is not customary to undertake such assessments in Latin America. And even, many innovative experiments have not been formally evaluated. On the other hand, the assessments that have taken place only take into account the objectives of the educational system, as pertains to the norm, in cognitive types of learning and in transversal studies. As an exception, affective-axiological assessments have been considered and there is no research dealing with retention. Next, the assessments are not exempt from important limitations and they are part of a closed system.

This paper stresses the need to study the contributions of primary education to the work place. In general terms, primary education contributes to the eradication of illiteracy, thereby significantly affecting the characteristics of the labor force in the region. Nevertheless, because of lack of information on the subject, it wasn't possible to determine conclusively the more important specific contributions to work and productivity of the different types of school-learning. Besides, it would seem important to centralize the information that exists on formal educational systems. This is an aspect that could be considered in REDUC.

Finally, upon considering the reality of employment, criticism about the school system, the economic limitations and the phenomenon of "credencialismo", it is recommended, as a priority matter, that research be undertaken which will satisfy conditions of efficiency that are concordant with expectations based on primary education.