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The future of education
in Latin America and
the Caribbean

Simon Schwartzman

PREFACE

The UNESCO Regional Office of Education for Latin America and the Caribbean (OREALC) offers in this document visions of future scenarios and dilemmas that education policies will have to face in order to define their strategies in the coming 15 years.

With the financial cooperation of the Government of Spain, OREALC decided to carry out this study which is to be presented at the forthcoming Meeting of Ministers to take place in Cochabamba, Bolivia. It offers a broad view of the problems and possibilities to be faced by education within the political, economic, and social scenarios of the region.

OREALC contracted a team* of specialists to carry out a two-phase study. First, "Delphi" methodology was utilized. A set of statements was prepared to which a group of experts replied, indicating their agreement or disagreement, and noting if the impacts on education policies would be positive or negative. These ranged from political and economic projections to comments about the organization of education systems and the characteristics of prevailing education practices. Second, a workshop was held in Santiago, Chile with the participation of specialists in order to discuss the results of an initial questionnaire and to invite them to present their own positions regarding the themes in question. The present document contains an annex that serves as a synthesis of the discussions of the workshop.

This study complements the assessment of the Major Project in the Field of Education which the Regional Office prepared at the request of the Ministers at the last PROMEDLAC meeting held in Kingston, Jamaica in 1996. The assessment marked the conclusion of 20 years of joint efforts to achieve complete coverage of basic education, greater coverage of adult literacy, and to implement necessary reforms in order to improve the quality of education. With the prospective study we hope that new possibilities will be opened for the development of education policies in the coming years.

It is our hope that the conclusions of the study will serve to stimulate reflection and creativity so that countries may convert the challenges presented herein into opportunities for growth, for learning, and for human development.

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THE FUTURE OF EDUCATION IN LATIN AMERICA AND THE CARIBBEAN:¹

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SUMMARY

In the next fifteen years, education in Latin America and the Caribbean will suffer the negative impacts of economic stagnation, political instability and the dwindling capacity of governments to develop long term, sustained social policies. Economic and cultural globalization will have a very negative impact, increasing the levels of inequality and social exclusion that are already high in the region. Educational institutions will be transformed by trends such as the universalization of initial education, the growing relevance of science and technology in basic education curricula, the adoption of new educational technologies, a growing demand for life-long education, and a growing concern for systematic assessments of student achievement. New information technologies can be an important instrument for the improvement of education, providing teacher education, access to better contents, and opening new learning opportunities; but there is also the risk of a growing digital divide, and of disregarding the role of teachers as students' irreplaceable references and role models.

These challenges of large transformations and growing needs, within an unfavorable economic and political environment, will be met by increasing levels of participation and involvement of all sectors of society with educational matters, and a growing decentralization of educational institutions from central governments and administration to the grassroots. Government-initiated projects of educational reform are unlikely to succeed if they do not involve the community and disregard what happens in the daily life of schools. Involving the community means taking into account the interests and building up the participation of all significant stakeholders in the educational tasks - students, families, teachers, school principals, and employers. To consider seriously what happens in the daily life of schools means not to take for granted that external inputs and systemic changes will be effective; for they will not be if they are not clearly related to the ways learning processes take place.

¹ This work was done at the request of UNESCO's Regional Office for Education for Latin America and the Caribbean. Concepts, ideas and judgments in this paper are based on ideas of the author, contributions of experts who cooperated with the Delphi survey and of experts that participated at the workshop organized for this purpose, as well as on other sources. I am particularly grateful for the comments, suggestions and sometimes strong criticisms of Alfredo Rojas, Ana Luiza Machado, Graciela Messina, José Rivero, Juan Casassus, Juan Enrique Froemel, León Trahtemberg, Marcela Gajardo, Maria Luisa Jáuregui, Patrícia Arregui, Pedro Sáinz, Rosa Maria Torres and others to earlier versions of this document. Educational questions are often controversial, and it was impossible to give full credit to all points of view. The responsibility for eventual errors and misrepresentation remains with the author.

² American Institutes for Research, Brazil, with the assistance of Helena Bomeny, Fundação Getúlio Vargas, Brazil.

This is the dominant picture that emerges from the first round of results of a Delphi study on the prospects of education in the region, answered by a panel of 50 experts and 32 other educational authorities and opinion leaders. Experts and influentials were invited to participate based on their reputations, and on peer indications. It was not a representative sample in any sense; but it did express the views of a very significant group of people, who set the agenda for research, discussions and policy orientations of many governmental, non-governmental and multi-lateral institutions.

For this analysis we have made a distinction between “experts” and “influentials”, considering experts those that have done research and published studies on educational issues. This distinction is not perfect, since experts are often influentials as well; for these cases, the “expert” classification prevailed. Comparisons between the views of experts and influentials show some significant differences, suggesting the existence of gaps in perception and orientation between specialists and those more directly involved in shaping public opinion and in implementing policies. In general, however, their views converge, suggesting the existence of significant consensus about the main educational issues in the region.

BACKGROUND

At the end of the 20th century, UNESCO's Regional Office for Education in Latin American and the Caribbean countries (OREALC/UNESCO), at the request of the Ministers of Education of the region, and with the support of the government of Spain, OREALC and UNESCO's national offices in each country, prepared a retrospective assessment of the development of basic education in the region in recent decades. The conclusion was that, in general, the region was still far from achieving the objectives proposed by its societies and governments in such initiatives as the Major Project in the Field of Education (MPFE, 1981) and in the Education For All Conference (Jomtien, 1990). Despite widespread efforts to provide universal primary³ education, reduce illiteracy, and improve the quality and efficiency of education, we enter the 21st century with many issues that were the targets of the MPFE still unsolved. The Education For All Declaration, for its part, offered a new conception of the nature and the role of education. In practice, however, in terms of educational content, pedagogy, and management, this new concept was diluted in most countries to conventional, non-innovative procedures.

What is the short-term outlook for the next 15 years? Two possible, contradictory trends stand out:

- Education will continue to have cultural, personal, and social equity value. In addition, there is a consensus that recent changes in the world economy make education an increasingly necessary tool for ensuring future national economic viability.

³ "Primary education" refers to the first level of basic education, which lasts from six to eight years; "basic education" refers to primary and secondary education..

- There are distressing signs that economic and cultural integration fostered by globalization may negatively affect the economies of the countries in the region, by increasing social exclusion and inequalities, and by reducing the capacity of governments to invest in social policies, and especially in education.

Trends do not mean that the future is written. Education systems can and will change. They can incorporate new forms of organization, new resources, new methodologies, and new instruments, and gather more support from society. By doing so, they can overcome the constraints imposed by even the most pessimistic social and economic scenarios.

To think about future scenarios and to help propose alternatives, OREALC/UNESCO decided to carry out a study of the future of education in the region. This was done in two steps. First, a questionnaire, prepared with the help of OREALC/UNESCO and patterned according to the well-known "Delphi" methodology, was presented to a panel of 82 experts and persons representing different sectors that directly or indirectly impact education in the region.⁴ The first part of the questionnaire addressed issues related to the broad economic, social and political context. The second part dealt with the broad relationships between education, society and the economy. The third part included more specific questions, related to the ways education systems are organized and educational activities are performed in practice. For each question, the panelists were asked to state whether they thought the statements presented to them were more or less likely to occur, and whether they expect them to have a positive or a negative impact. Most statements were presented in categorical and strong terms, so that the panelists could react, expressing their ideas more forcefully.⁵

Secondly, OREALC/UNESCO convened a workshop in Santiago, Chile, to which a selected group of educational experts were informed of the first results of the Delphi survey, and invited to present papers and discuss their views on the same issues raised in the questionnaire.⁶

This is not an attempt to predict the future in a naïve sense. However, experts and influential persons are more likely than others to understand current trends and

⁴ A selected bibliography of the panelists which volunteered this information is provided in Annex 1 of this document.

⁵ This strategy succeeded, in general, but some respondents objected to the way the questionnaire was phrased, believing that it had some implicit, non-declared assumptions, especially regarding the relationships between education and work, education and technologies, education and the role of international organizations, and others. There were open-ended questions, however, for respondents to express their own views, and many did just that. Another objection was that the questionnaire assumed that Latin America and the Caribbean comprise a homogeneous region, without taking into account the deep differences that exist between countries. This is a valid criticism and points to an important limitation of this study. This was unavoidable, however, given the constraints of time, resources and the need to provide a comprehensive view.

⁶ The list of participants invited to the workshop and their contributed papers can be seen in Annex 2 of this document. Most of the participants responded also to the Delphi survey, and the workshop was organized around the same central themes. Unfortunately, there were no experts from the Caribbean region in the meeting. An overview of the meeting is presented in a separate document.

imagine what we can expect from them, and also to shape the future to a certain measure. We wish to better understand the constraints we will have to face in the coming years, and to identify instruments or tools we can use in order to improve our present situation.

The Delphi technique is supposed to be an interactive process, in which the panelists are first asked to present their views, and then have opportunities to revise them based on the information they receive about the collective views of the group.⁷ For this study, we distributed the analysis of the first results to all respondents, asking them to send additional comments or changes in their first responses. Very few of the panelists chose to send additional comments or changed their opinions after viewing the survey's first results. The workshop, however, was an excellent opportunity to clarify and deepen the understanding of most of the issues presented in the survey⁸. We decided, therefore, to consider the workshop as the second and last round of the Delphi survey, and not to send out another round of questionnaires to the panelists. This summary draws on the results of the questionnaire, on the papers presented, on the discussions and exchanges of views that took place in the workshop, and on the comments and criticisms received after a first version of this document was circulated among the participants in both activities.

⁷ The Delphi technique was first developed at the Rand Corporation in the US in the late forties as an instrument for eliciting expert opinion on a variety of topics, and more specially for technological forecasting. Hundreds of studies were carried on using this approach, and it became clear, very soon, that its main strength is not as an instrument for the production of accurate forecasts, but as a way to identify issues and questions which are important when one wants to anticipate future scenarios. See, for a general presentation and critical view, H. Sackman, *Delphi Assessment: Expert Opinion, Forecasting and Group Process*. The Rand Corporation, 1974.

⁸ The provisional version of papers presented in the workshop, together with other contributions and links, can be found at <http://www.ip3.org/delphi> . The final versions can be found at <http://www.unesco.cl>

THE BROADER CONTEXT

GLOBALIZATION

Table 1
The Global context⁹.

	Probability (1, very unlikely; 5; very likely)	Impact (1, very negative; 5, very positive)
Economic reorganization, with globalization and growing emphasis on the symbolic content of products and activities will tend to increase exclusion and social inequalities even more in the region	<p>globalization</p> <p>x: 3.91 sd: 0.87</p>	<p>globalization</p> <p>x: 1.88 sd: 1.02</p>
Countries will have growing difficulties using public resources for social policies; budgets for basic education will be smaller	<p>public expenditure</p> <p>x: 3.15 sd: 1.19</p>	<p>public expenditures</p> <p>x: 1.66 sd: 0.98</p>
The economies of most countries in Latin America and the Caribbean will stagnate, or will not grow significantly	<p>economic growth</p> <p>x: 2.91 sd: 1,07</p>	<p>economic growth</p> <p>x: 1.94 sd: 1,15</p>
Democracies will have difficulty establishing themselves, will be replaced by populist governments or will face problems of instability.	<p>governing</p> <p>x: 2.91 sd: 1,07</p>	<p>governing</p> <p>x: 2.10 sd 1.22</p>

⁹ This and the following tables reproduce the phrases used in the English version of the Delphi survey.

The panel members were presented with several statements related to the broader context that could affect education in the next fifteen years. Table 1 presents the answers to these questions¹⁰.

Of the different broad trends presented for evaluation in the survey, the panelists chose the economic effects of globalization as the most likely to occur, seeing it as having a very negative impact in the region, increasing social exclusion and social inequalities. In the workshop, José Joaquín Brunner commented on the tendency among intellectuals and policy makers to look at globalization as an over-encompassing trend, from which broad consequences are supposed to follow, without much effort to identify its different aspects and consequences in specific contexts. He noted that the term is used to represent trends that are not necessarily related to each other, and does not account for the fact that different countries react to global trends in distinctive ways. He argued that national conditions, capabilities and competencies are still the main factors to best explain how countries may respond to external

<i>Globalization: the "grand effects" thesis.</i>
<p>It is not surprising that the main problem, or weakness of the "grand effects" thesis is that it points to globalization - a backdrop context - as the immediate cause of a variety of consequences in the field of education or education policy that are of quite dissimilar origin. To be a backdrop is not to be a cause, however. Thus, for example, decentralization of education may be a result of a variety of causes and may follow different courses in different societies, without the backdrop of the globalization process being relevant. The same is the case with the decrease or increase of budgetary funds for education, with the greater or lesser presence of competitive elements in a system, with the privatization of education, etc. In each case, what is certain is that empirical analysis shows that these are cases of phenomena that are still basically determined by what one writer calls the rule of "methodological nationalism" (Beck, 1998); that is, wherein the profile of society traces that of the national State, serving as a "receptacle" of the particular phenomena to be explained.</p> <p>In short, the "grand effects" thesis does not provide an adequate framework to enable us to assess the consequences of globalization within environments in which education develops, and, thus, to assess the consequences of changes in such environments on the innermost workings of the education system; that is, on teaching and learning processes.</p>
<p><i>José Joaquín Brunner, Globalización y el futuro de la educación: Precisiones, desafíos y estrategias</i></p>

DEMOGRAPHIC CHANGE, ECONOMIC DEVELOPMENT, EMPLOYMENT, AND EDUCATION

The shape of society is changing very dramatically in most Latin American and the Caribbean countries, and these changes will have important impacts on education. The main trends are the dramatic decline in fertility rates; the concentration of most of the population in urban areas; and the massive access of women to the labor market and to education. As the population gets older and urban, the focus of educational policies shifts from access and coverage to quality and content. Schools in the suburbs of overcrowded metropolises have to deal with problems of urban violence and social anomie in a scale that was unknown until recently. As women enter the labor market, their children need nurseries and pre-schools where they can spend the day and start their education at earlier ages. All these changes require more resources,

¹⁰ For each statement, the panelists were asked to say if they were very likely (5) or very unlikely (1) to happen, and whether they would have a very positive (5) or a very negative (1) impact in the future of the region. Statements with an average response close to 3 on its probability can be interpreted as meaning that the panel was undecided about their likelihood; statements with an average response close to 3 on its impact can be interpreted as meaning that the panel was undecided about their positive or negative effects. The spread of views can also be gauged by the standard deviations and the shape of the distribution curve.

better-educated teachers and school administrators, and clearer links between education and working opportunities.

Impacts of socio-demographic changes on education
<p>The nature of school demand will change, decreasing the pressure on basic education, and increasing it on higher and adult, or "continuing" education.</p> <p>Demand for education will decrease in rural areas (as a result of rural to urban migration). This will require changes the physical plant of schools in order to adapt them to meet new needs (middle and adult education).</p> <p>This will also require changes in how teachers are trained, as well as retraining those already in service.</p> <p>Education paradigms will emphasize development of the ability to learn to learn, in accordance with new technologies and the consequent greater access to information. Carlos Muñoz-Izquierdo, comments to the Delphi questionnaire.</p>

Pedro Sáinz and Mario La Fuente, in their paper, made an effort to look at the current prospects for economic development in the region, and at their expected impact on occupation and educational requirements.¹¹ Based on the experiences of the last twenty years, and the characteristics of the international economy today, they do not expect the region to grow very fast in the next fifteen years. Nonetheless, they explored a scenario of higher growth. More specifically, they believe that the bulk of economic growth will take place in specific segments of different societies, and that their benefits will concentrate in specific social groups.

Prospects for Economic Development in Latin America and the Caribbean
<p>Beginning in 1985, countries such as Costa Rica, El Salvador, Colombia, Peru, and the Dominican Republic seemed to be attaining periods of stable annual economic growth above 5%. Nonetheless, during this period only Chile successfully maintained high positive rates of growth - the result of a stable investment policy and growing stability of its balance of payments. It was only beginning in the last three years of the 1990s that Mexico, Costa Rica, and the Dominican Republic managed to more closely match Chile, with the rest of the Central American and some Caribbean countries doing so to a lesser degree.</p> <p>It is possible to identify particularly dynamic areas of investment in these countries, in which there has been stable accumulation of capital for relatively long periods, and which, additionally, result in high rates of export growth which allow them to achieve a more stable balance of payments and reducing importantly their degree of vulnerability to outside forces. In the case of Chile, part of this dynamic area of the economy was associated with natural resources (mining, forest products, fishing, and fruit), while in Mexico it encompasses manufactures (especial vehicles), light industry, tourism, and natural resources (petroleum). In the case of the Central American and Caribbean countries, tourism, light industry, and natural resources have played a central role. In all of these latter cases, international migration has also been important, reducing to some extent social demands, pressures on employment, and, due to repatriation of significant amounts of funds back to foreign workers' families.</p> <p>Dynamic areas have also appeared in other countries, but their intensity has been insufficient. Such is the case, for example, of the impact that the Mercosur has had, especially in Argentina and, to some extent, in Brazil.</p> <p>In summary, countries in which the recovery of growth has been significantly backed by increased consumer demand, sustained for its part by substantial levels of domestic and foreign debt, created situations of extremely serious foreign vulnerability during the 1990s. Illustrations of this were the crises in Argentina and in Mexico in 1995, and the recession that affected most South American countries in 1998-99.</p> <p><i>Pedro Sáinz G. and Mario La Fuente R., Crecimiento Económico, Ocupación e Ingresos en América Latina: Una Perspectiva de Largo Plazo</i></p>

Projected into the future, this situation means that, even in the best scenarios, economic development will concentrate on more modern and highly capitalized and technically updated sectors of the economies in specific countries, providing limited quality employment opportunities mostly for highly educated persons. For many intermediate productivity occupations, employment is likely to grow in quantities that are below the expansion of educational opportunities, at normal productivity growth rates. Such growth could have important positive effects in a country, expanding the modern services sector, creating internal demand, reducing poverty

¹¹ Pedro Sáinz G. and Mario La Fuente R., *Crecimiento Económico, Ocupación e Ingresos en América Latina: Una Perspectiva de Largo Plazo*.

levels, and providing governments with more tax resources for social policies of different kinds. However, it cannot be expected to absorb persons with secondary school training and first level of university degrees in large quantities, and its effect on income distribution is not expected to be very significant.

This view differs from the traditional understanding coming from the “human capital” theory of education, for which education, by itself, is a productive factor, and can generate wealth in a vacuum of complementary capital and technology. This issue is taken up by Henry Levin’s paper¹², which presented a survey of the development of the human capital theory since its inception, with the work of Gary Becker, to its current, more elaborate versions. What the earlier theorists of human capital found out was that countries with more educated populations were much more productive than others, and these differences in productivity and wealth could not be explained by different endowments of the traditional economic factors – capital, labor, land, raw materials. They did not look, however, at the specific ways in which education contributed to the creation of wealth. This was done more recently, as described by Levin:

"Particularly in a dynamic setting where there are continuous changes in input prices and productivity, partially resulting from new technologies and market alignments, traditional methods of resource allocation may be inefficient. What abilities are needed to adjust to such disequilibria and make the firm more productive? More education and higher education, in particular, imparts in workers the abilities to master an understanding of their roles in the production process and to tacitly make adjustments to changes in the prices and productivity’s of inputs. These continuous adjustments allow a return to equilibrium in the economic sense of equating costs and revenues at the margin and maximizing productivity and profits."

The important caveat, here, is the reference to a “dynamic setting”, where these adjustments toward greater efficiency can take place. This setting corresponds to the dynamic and well-endowed sectors of the economy mentioned by Sáinz and La Fuente, outside of which the productive effects of education seems limited.

PUBLIC EXPENDITURES ON EDUCATION

In spite of the expected inability of the economy to absorb a growing number of well-educated persons, the demand for education in the Latin American and the Caribbean region is likely to remain intense. As the population becomes more educated, persons with higher qualifications replace the less educated, even if no new jobs are being created, and if the economy is not growing or changing in a significant way. This relative advantage of the more educated is a very powerful incentive for individuals, even when the social and economic benefits of educational mobility for society are negligible or even negative. This expectation of better income and more stable jobs, however, is only one part of a broader generational movement for more education, which is also part, if one wishes, of globalization. For the upper and middle sectors in all countries, to be a student is an essential part of the lifestyle of the young.

¹² Henry Levin, *Pedagogical Changes for Educational Futures in Latin America and The Caribbean*.

For the middle sectors, there is a strong social pressure to get some kind of higher education degree, and a full secondary education is becoming an indispensable requisite for citizenship and social acceptance. For the lower social groups, education is perceived as the best channel for social mobility, job stability and higher income. All panelists agreed that education in Latin America and the Caribbean should continue to expand and improve its quality in the next decades, and several among them stressed that, more important than the adjustment of skills to the labor market are functions like spreading and maintaining social values, increasing equity, developing critical minds, and building social capital. To be educated – and, more specifically, to complete at least the first eight or nine years of basic education, and, in some cases, higher qualifications – is not perceived as a means to an end, but as a new social right to which everybody is entitled.

This contrast between what will happen with the economy and what is expected to happen with education is made still stronger because the cost of education will rise very significantly in the next several years, while the resources to pay for it will not be forthcoming, at least not in the expected amounts. The panelists were uncertain about whether public expenditures in education would stagnate or continue to grow, but the absence of adequate resources was perceived as the worse possible scenario for the future. The current trend seems to be in the direction of growth in absolute and relative terms, but not enough to cover future needs. Once universal access to primary education is attained, as it has been for most countries in the region, there are growing pressures for expansion of higher levels of education – secondary, technical and higher education. In his presentation, José Pablo Arellano noted that the cost of secondary education is on average 30% higher, per capita, than the cost of primary education, and this cost is multiplied several times for higher education. To improve the quality of education at all levels, a widespread demand, is also very expensive: it requires better educated and better paid teachers, better buildings, less students per teacher, better equipment in the schools, laboratories, computer equipment, and libraries. There is some space for more public expenditures for education, but not much. According to Arellano, the countries in the region already invest about 12% of their per-capita income in education, compared with about 19% for the OECD countries (the figure for Chile is 17%). A 50% increase in per-capita expenditures on education in the region would bring these countries close to those with the highest levels of investment in the world. This would still not be sufficient, however, given the much smaller per-capita income in our countries. Even in the best scenario, the countries will have to choose between modest improvements in primary and secondary education and the expansion of higher education. They will not be able to do both.

Future Expenditures for Education in Latin America

Public spending on education in Latin America exceeded 3.9% of GDP in 1980, and due to increases recorded during the 1990s, 4.6% in 1997. In developed countries this figure remained constant at about 5.1%.

If, during the next 15 years, significant efforts are made to increase the amount of public resources dedicated to education in Latin America, we may look forward to an additional 1.5% of GDP annually.

The two largest needs for resources - coverage for secondary and higher education, and improvements in the quality of primary and secondary education - cannot be met simultaneously by public spending. Duplicating current coverage of higher education and increasing secondary coverage by 50% would require nearly 1.5% of GDP. A similar cost would be required to increase current per student investments in primary and secondary school by 50% and thus bringing them up to the levels of per-student investment in terms of GDP of the most developed countries.

This tension between coverage for higher and secondary education, and school quality is also one that has direct connotations in the area of equity in the allocation of public resources. Those tending to benefit from greater quality of education are those who are poor, while in the case of greater coverage, the beneficiaries would be those of middle and high income.

José Pablo Arellano, *Financiamiento de la Educación en América Latina*

GOVERNABILITY AND EDUCATIONAL REFORM

The panelists were uncertain, but tended to disagree, with the statement that “democracies will have difficulty establishing themselves, will be replaced by populist governments or will face problems of instability”. This was to be expected, since, for the first time in history, elected, civilian governments rule all countries in the region, and isolated attempts to break the constitutional order have been met with strong national and international resistance.

Political democracy, however, is not the same as governability. In all countries, there is a gap between what governments can provide and the growing expectations of the population. This can open the way for populist politics: situations in which politicians promise more than they can deliver, and sacrifice long-term goals for short-term political benefits and public opinion impact. For education, such situations can mean institutional instability, lack of leadership, waste of resources and financial uncertainty, all leading to the inability to maintain long-term projects of educational improvement and institutional growth.

Problems of governability are often met by attempts to reduce the political and economic resources governments can handle. One way to do this is to reduce government responsibilities, transferring them as much as possible to the private sector. This is the trend towards “minimum government” and privatization, which is seen sometimes as part of “globalization”, but stems from a much more basic mistrust of the ability of governments to function well. Another response to the problems of governability, very common in the region, is to tie the government’s hands through a complex set of mandatory legislation, oversight committees and supervisory bodies, with a strong presence of stakeholders. A third trend is to transfer responsibility from the higher to the lower levels of government – states and municipalities - under the assumption that, the closer to the grassroots, the better governments can function. In short, although the forecast for democracy is not negative, there is a clear concern about the role of government in the management of education. This appears in the strong preference of the panel members for higher levels of decentralization and social participation in educational activities; it appears also in their mistrust for comprehensive projects of education reform. Rosa Maria Torres, in her analysis of ten years of the *Education For All* initiative, pointed to the drift that occurred from the ambitious goals of a new approach to education, so strong in the 1990 Jomtien declaration, to the conventional ways in which the educational policies were carried

out afterwards;¹³ Graciela Frigerio¹⁴ points to the inability of comprehensive reform projects to change the culture of the schools, a condition without which successful educational policy cannot exist; and Álvaro Marchesi points to the main contradictions of most current attempts at educational reform in Latin America. And the first item in his list of a desirable future is a strong commitment of government and society with educational goals; all the others are changes that have to take place at the grassroots of the educational systems.¹⁵

Current realities and desirable future for educational reform
<p>A contradictory fact of life:</p> <p>Societies increasingly place demands on education but are not committed to it in practice.</p> <p>The problems facing education do not stem exclusively from education itself; but proposed solutions appear only in terms of education reform.</p> <p>Teachers must carry out new functions, but keep to traditional formulas in organizing their tasks.</p> <p>Schools should accomplish new tasks, but their organizational model remains unchanged.</p> <p>Assessment systems should reflect the multi-faceted reality of education, but they focus exclusively on student academic achievement.</p> <p>More and better education is demanded, but the meaning and value of education is being lost.</p> <p>The sophistication of the debate goes on within a scenario of enormous unmet needs.</p> <p>A desirable future:</p> <p>Government authorities and societies that are committed to education</p> <p>A change in the organization and functioning of schools</p> <p>Necessary involvement of parents</p> <p>A radical change in the situation of teachers</p> <p>A new way of teaching</p>
<p><i>Based on Álvaro Marchesi, Cambios Sociales y Cambios Educativos en Latinoamérica</i></p>

EDUCATION AND SOCIETY

There was strong consensus among the panelists that education is moving towards greater decentralization, autonomy and community participation and that this was considered a very positive trend. Society is becoming more aware of the importance of education, and will bring more resources to it, beyond those provided by the State. Among education's positive contributions to society, two are perceived as very likely to happen, and should have a strong impact: shaping citizenship, creating a more just social order; and developing life skills; and reducing social and economy inequity. Panelists believe that international and multilateral organizations will play a growing role, but do not expect their impact to be especially important either.

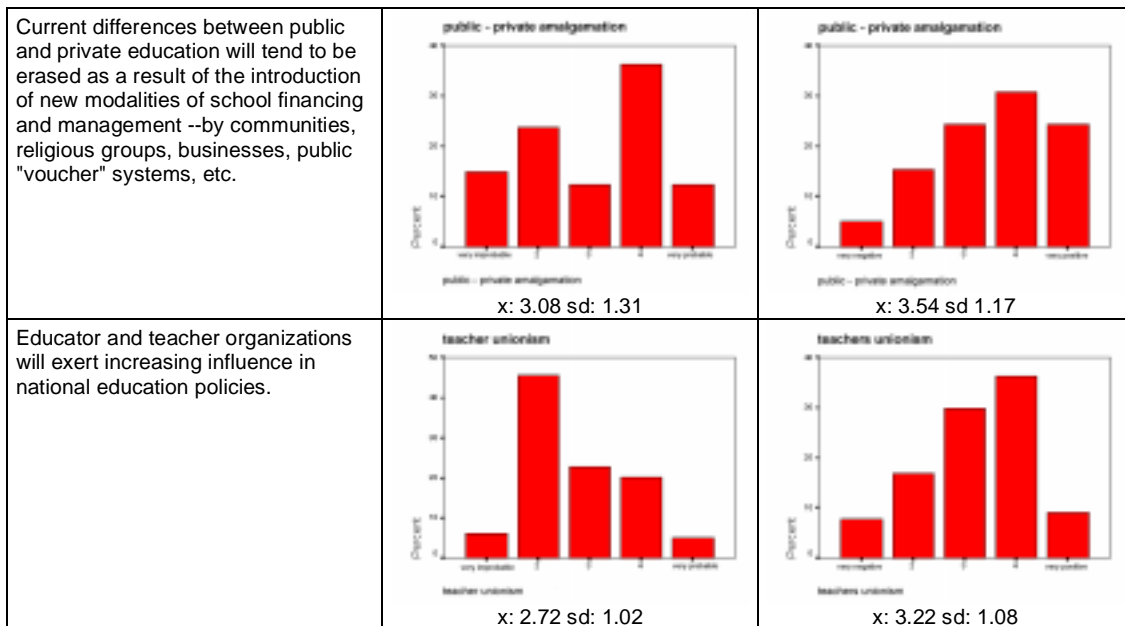
¹³ Rosa Maria Torres, *Una Década de Educación para todos - la tarea pendiente*, FUM-TEP, Montevideo, 2000; Editorial Popular, Madrid, 2000; Editorial Laboratorio Educativo, Caracas, 2000; IIPE-UNESCO, Buenos Aires, 2000; Artmed Editora, Porto Alegre, 2000.

¹⁴ Graciela Frigerio, *¿Las reformas educativas reforman las escuelas o las escuelas reforman las reformas?*

¹⁵ Álvaro Marchesi, *Cambios Sociales y Cambios Educativos en Latinoamérica*.

Table 2
Education and society

	Probability (1, very unlikely; 5, very likely)	Impact (1, very negative; 5, very positive)
The current practices of education system organization and management will change, moving towards greater decentralization, autonomy, and community participation.	<p>x: 4.21 sd: 0.73</p>	<p>x: 4.14 sd: 0.90</p>
The interest in education of different organized sectors --the business community, non-governmental organization, unions, etc.-- will grow. This will mean the introduction of more human, financial, and technological resources in education systems of all kinds.	<p>x: 4.00 sd: 0.80</p>	<p>x: 4.29 sd: 0.72</p>
Education will play an important role in shaping citizen ship, creating a more just social order, and developing life skills in the region.	<p>x: 3.84 sd: 0.88</p>	<p>x: 4.51 sd: 0.77</p>
Formal edication will increasingly lose its function of teaching values, and will be progressively limited to fulfill the requirements of the labor market.	<p>x: 2.66 sd: 1.30</p>	<p>z: 2.17 sd: 1.12</p>
Education will play a very important role in reducing social inequalities within countries in the region.	<p>x: 3.58 sd: 0.94</p>	<p>x: 4.39 sd: 0,98</p>



DECENTRALIZATION AND LOCAL AUTONOMY

It is difficult to decide if the panelists' prediction of a trend towards decentralization and local autonomy of schools results from an actual appraisal of what is likely to happen, or is an expression of what they would like to see in the next fifteen years. In any case, these strong expectations and preferences for decentralization and local autonomy derive from the growing skepticism about the management capabilities of central authorities, and, perhaps more important, from a growing realization that education is an activity which requires permanent creativity, leadership and initiative, and that activities of this kind cannot be performed according to bureaucratic procedures and hierarchical command lines. This notion, spelled out clearly in Ana Luiza Machado's paper¹⁶, is an integral part of the "Accelerated Schools Project" described by Henry Levin in his paper, and is valid for any education setting, regardless of its implicit pedagogical orientation. As Graciela Frigerio points out¹⁷, decentralization, in itself, may not produce the expected results, if it is just a pretext from central administrations to forsake their responsibilities, and if it is not accompanied by adequate changes in the school's culture. The expectation, however, is that more local responsibility and empowerment can be a strong incentive to create new institutional cultures, which could not be possibly handled from above or from outside.

¹⁶Ana Luiza Machado, *Papel dos Gestores Educacionais num Contexto de Descentralização para a Escola*.

¹⁷Graciela Frigerio, *Las reformas educativas reforman las escuelas o las escuelas reforman las reformas?*

School decentralization

The kind of school that we seed through decentralization is one that is autonomous, open, flexible, democratic, participatory, and that serves as a locale for socialization. It is a school that interacts with the school community, where teachers are committed to student results, and where parents are present as well. It is, finally, a school in which students are valued and are stimulated to learn; where the organizational climate favors learning and where teachers work together in teams. It is a place where the student's curiosity is awakened so he or she may continue to learn and receives the tools to do so.

School autonomy, empowerment and responsibility in the Accelerated Schools project.

Accelerated Schools are built on the active practice of three central principles:

- (1) Unity of purpose refers to an active collaboration among parents, teachers, students, support staff, administrators, and the local community toward setting and achieving a common set of goals for the school. These shared goals and values become the focal point of everyone's efforts.

Clearly, a central element of the unity of purpose involves working to transform the school into an accelerated one that will make students academically able at an early date so that they can fully benefit from their further schooling experiences and adult opportunities. The all-inclusive process of defining a common purpose is extremely important in and of itself. By including all members of an educational community from the start in the planning and design, the implementation, and the evaluations of educational programs, schools can ensure more cohesive educational efforts and a greater commitment to those efforts. Unity of purpose stands in contrast to the rigidity of many national educational systems that provide little scope of discretion at the local level to set the direction of schools. However, unity of purpose must also be accompanied by the power to make decisions that will support the purpose of the school, within the broad limits established by the government on curriculum and school policy.

- (2) Empowerment coupled with responsibility refers to the ability of the participants of a school community in both the school and at home to make important educational decisions, take responsibility for implementing those decisions, and take responsibility for the outcomes of those decisions. The purpose of this principle is to break the present stalemate among administrators, teachers, parents, support staff, and students in which the participants tend to blame each other as well as other factors "beyond their control" (e.g. the government) for the poor educational outcomes of students. Unless all of the major actors can be empowered to seek a common set of goals and influence the educational and social processes to realize those goals, it is unlikely that the desired improvements will take place or be sustained.

This shift from a central authority to the school requires the establishment of three sets of institutional changes that are usually not present. First, there must be an effective system of school governance that can involve and stimulate participation of all of the pertinent constituencies in an effective way. Second, since good decisions are informed-decisions, the school must adopt a method of problem-solving that addresses its challenges and provides appropriate decisions based upon a good base of information. Third, the school needs its own system of assessment to ascertain the consequences of its decisions. The development of all three of these is incorporated into the Accelerated Schools process.

- (3) Building on strengths refers to utilizing all of the learning resources that students, parents, all school staff, and communities bring to the educational endeavor. In the quest to place blame for the lack of efficacy of schools in improving the education of students at-risk, it is easy to exaggerate weaknesses of the various participants and ignore strengths. Accelerated School communities actively look for and build upon the strengths of all students, parents, teachers, support staff, administrators, the district and the local community as they implement the Accelerated schools process and develop powerful learning experiences.

From Henry Levin, Pedagogical Changes for Educational Futures in Latin America and The Caribbean.

DIVERSITY AND MULTICULTURALISM

Related to the quest for decentralization and local autonomy is the growing concern, in Latin America and the Caribbean, about the large cultural and often linguistic differences that exist within the countries. This issue is especially relevant for the millions of native Americans that inhabit countries such as Bolivia, Peru, Ecuador, Guatemala, Mexico and Paraguay, speaking their own languages, but is also relevant to minorities which were almost disappearing in countries such as Brazil, Chile and Argentina, and are now recovering their lost identities and claiming their rights to an education related to their culture. In the past, cultural assimilation was considered desirable, and education in native languages was conceived at most as a

transitional mechanism to bring native children into the cultural mainstream. Today, as argued by Luiz Enrique López, the prevailing notion is to provide children with bilingual education, in such a way that they can, at the same time, preserve and enhance their identities, and link to the global culture.¹⁸ Multicultural education has to be seen as much more than affirmative action, or a quest for cultural variety for its own sake. This point is made very forcefully by K. A. Appiah, from whom

"The fundamental argument for cosmopolitanism and multiculturalism flows from this understanding of the role of society in creating the options among which the autonomous chooser chooses. The freedom to create oneself, the freedom that liberalism celebrates, requires a range of socially transmitted options from which to invent what we have come to call our identities. Our families and schools, our churches and temples, our professional associations and clubs, provide two essential elements in the toolkit of self-creation. First, they provide ready-made identities - son, lover, husband, doctor, teacher, Methodist, worker, Muslim - whose shapes are constituted by norms and expectations, stereotypes and demands, rights and obligations; second, they give us a language in which to think about these identities and with which we may shape new ones."¹⁹

Intercultural Bilingual Education

IBE is, essentially, education rooted in the immediate reference culture of the learner, but open to the incorporation of elements and of contents coming from other cultural contexts, including universal culture itself. IBE is also education that is transmitted in an Amerindian language as well as Spanish or Portuguese, providing for the development of learner communication skills in two languages at the same time: the mother language and the second language.

The name, "intercultural", refers specifically to the cultural dimension of the educational process and to meaningful learning that is socially and culturally based. It also refers to learning that seeks to respond to basic needs of learners who come from ethnically and culturally differentiated societies. The intercultural dimension of education also refers to both the curricular relationship that is established between different kinds and areas of knowledge and an indigenous society's own or appropriated values, as well as those that are unknown or outside. It seeks to establish a permanent dialogue and a complementary relationship between traditional and Western cultures in order to satisfy the needs of indigenous populations and to provide them with better living conditions.

From this perspective, IBE is a means to provide dialogue, a meeting place, and complementary exchange between differently rooted cultures. Thus, it involves much more than simply teaching languages or merely teaching in two different languages. It is aimed at generating a radical transformation in the education system in contexts in which the use of one's own language gives rise to true innovations in ways of learning and of teaching.

Luis Enrique López, *La cuestión de la interculturalidad y la educación latinoamericana*

There are already some important experiences in providing this type of multicultural education in the region, and the concept of how it should be provided has been well developed, as evidenced in López' paper. Paradoxically, multiculturalism, as a counterpoint to cosmopolitanism, is an important component of the globalized social agenda, and multicultural projects often receive strong international participation and involvement, with non-governmental and multi-lateral organizations reaching out to native populations, often bypassing the countries' own educational authorities and institutions. The benefits these projects can bring to the communities involved are self-evident. Less clear, however, is the ability of this approach to reach

¹⁸ Luis Enrique López, *La cuestión de la interculturalidad y la educación latinoamericana*.

¹⁹ Kwame Antony Appiah, "Liberalism and the Plurality of Identity", in N. Cloete and others, *Knowledge, Identity and Curriculum Transformation in Africa*, South Africa, Maskew Miller Longman, 1997.

the millions of natives that remain marginal not only to the culture, but also from the resources and the social policies of their own governments.

PARTNERSHIPS AND PRIVATIZATION.

The panelists were sharply divided on whether the trend toward decentralization and local autonomy was tantamount to a trend toward the blurring of the distinction between private and public institutions. The notion that all citizens are entitled to education, and that it is the responsibility of governments to provide the necessary resources to guarantee this right of citizenship, is not under question. Demands for education, however, are large and differentiated, and public resources are and will remain scarce. There is room, therefore, to discuss the priorities in the use of public resources, and to bring other resources to bear in the provision of education for all.

In the past, this question was seen in terms of a tension between the expected the roles of state families and churches as the main providers of basic education, and was linked to the issues of educational freedom and the rights for laic and religious education. Today, few persons, and none of the panelists, question the right of churches and families to provide the education they consider best for their followers and children. All agree, at the same time, that governments should remain the main provider of basic education in Latin America and the Caribbean. This task, however, should not be left to educational authorities alone, but should get all the possible support from other sectors of government and society, as stated in the 1990 Jomtien Declaration on Education for All.

Financial resources are just one reason why this broad cooperation is necessary. The involvement of different sectors of society with schools bring to them the concerns, values and attitudes of the real world, makes them more accountable to society, and make the contents of the education they provide more relevant.

Partnerships for education
National, regional, and local educational authorities have a unique obligation to provide basic education for all, but they cannot be expected to supply every human, financial or organizational requirement for this task. New and revitalized partnerships at all levels will be necessary: partnerships among all sub-sectors and forms of education, recognizing the special role of teachers and that of administrators and other educational personnel; partnerships between education and other government departments, including planning, finance, labour, communications, and other social sectors; partnerships between government and non-governmental organizations, the private sector, local communities, religious groups, and families.
World Declaration on Education For All, Jomtien, 1990.

Marcela Gajardo, in her paper,²⁰ draws a comprehensive view of the different sectors which are becoming involved with education issues in Latin America: they include businessmen and entrepreneurs, private foundations, grass-roots non-governmental organizations, institutions associated with churches, parents and teachers' associations, parents' associations, community-based institutions, and many others. In some cases, they bring additional resources to public schools; in others, they create and maintain their own schools; they can have special programs, to support specific activities; and they can be involved in the management of public resources and institutions. Their work can be limited to providing help when public resources

²⁰Marcela Gajardo, *Educación, Asunto de todos?*

are scarce or not forthcoming; but they can be involved also in more complex and ambitious tasks, helping to shape new programs, giving special attention to less privileged and slow learning students, and shaping education policies.

The trend toward greater participation of society in education opens the way to innovation and may bring more resources, but is subject to intense debate. For its critics, it is part of a broader trend of governments to relinquish their responsibilities, and to renounce to the values associated with public education. For others, it is a healthy and necessary move away from bureaucracy, inefficiency and educational irrelevance.

Dilemmas associated with the mobilization of society for education

In general, we can say that policies come together, but that there still is a lack of instruments and mechanisms that encourage and make possible full participation of different actors within government in fashioning education policies and management. Channels for participation are still limited. Legislation is faulty. Resources with which to foster and increase opportunities for participation are scarce. Distrust exists among people in the public and private sectors in regard to objectives and strategies. In general, the private sector expresses a lack of credibility on the part of the State, together with its practical impossibility to confront and to reform all of the problem areas of education.

The most recent institutional and management changes in education systems and in teaching show this to be the case. Reforms have been promoted from the center as part of a larger process of modernization in the State. This has allowed responsibilities to be transferred to local administrations and communities, to families, to unions and companies, without become accompanied by the financial resources and transference of power necessary for effective management. As a result, processes such as the decentralization that is currently underway in practically all countries in Latin America have brought with them internal conflicts resulting from not knowing who is in charge of what, who has power, are what resources are available. New measures undertaken to require families to share in financing education have been accompanied by complaints that people are being denied a right which is now considered universal: free access to quality education that is equal for all citizens and paid for by the State. Nor has the private management of public resources, translated into subsidies, "vouchers" or "bonuses", shared financing or differentiated arrangements such as transferring the administration of public schools to unions, private companies, church groups and private parties that administer public institutions been free of criticism. This, in spite of the fact that some of these experiences have provided valuable lessons in terms of public-private partnerships for the improvement of teaching and education.

Marcela Gajardo, Education: a subject for all?

CULTURE, CIVIC VALUES, SOCIAL CAPITAL, EQUITY.

The panelists expected education to play important roles in fostering civic, cultural and social values, and to help to increase social equity. The impact of these functions was deemed to be very high, and the panelists held practically unanimous views in this regard. They do not believe that a closer approximation with the market will reduce schools' function of teaching values.

There is nothing new in the assertion that schools should foster civic, cultural social and moral values among students. It is a notion that has been present in all educational institutions everywhere. The specific contents of these values and cultural elements, of course, are open to contention, but our survey did not go deeper enough to allow these contentions to appear. For many panelists, this issue was often considered to be in opposition to what was perceived as a narrow view of education, concerned only with the development of marketable skills.

Traditionally, cultural values were included in the school curricula in the teaching of history, geography literature, religion and, in some cases, through special courses of "moral and civic education". The dominant perception, today, is that these courses tend to become formal and distant of the student's real life, and fail to fulfill their functions. The more recent trend is to teach these values, together with others,

such as care for the environment, non-discrimination and the prevention of contagious diseases, as “transverse subjects” which should be part of the teaching of all disciplines. This notion is present in the new official curricula in many countries, but there is no evidence that this orientation is bearing significant results.²¹

For many education specialists and influentials, what is important is not to teach values and culture in the traditional ways, but to develop in the students the ability to look at society from an independent and critical perspective. In this view, education should not be a one-way transmission of established knowledge, but a creative process of thought in which students, together with the teachers, develop their minds, and the ability to think independently and to transform society. If schools could function according to this model, they would cease to be a mechanism for the reproduction of established social differences and hierarchy, and would become, by themselves, a powerful instrument of social change.

“Social capital” is a different concept. In a narrow sense, it is tantamount to “social skills” - the person’s abilities to relate to others, to work in groups, and to deal with the public. It is possible to argue that social skills are very important for a productive and meaningful life, and that schools should give more emphasis to the development of these skills, rather than expend all their energy on the teaching of formal knowledge that is unrelated to students’ real life situations. In a broader sense, “social capital” is related to the notion of “trust”, the sharing of communal values and bonds of confidence that ties people together. It has been argued, by some authors²², that these networks of trust and confidence are as an important asset for social and economic development as capital and knowledge, and that no sustainable social and economic development can take place in societies where people mistrust each other. Important as social capital may be, it is not clear how schools can help to construct it in any definable way.

The notion that education, and especially public education, is an instrument to foster social equity, seems to be a dominant consensus, but is controversial among specialists.²³ Intuitively, it seems obvious that, in societies that can provide good basic education to everyone, opportunities are more evenly distributed. There is strong evidence that differences in education are the main determinant of income inequality, and that countries with low levels of education, above a given income threshold, tend

²¹In Brazil, the National Parameters for the Curriculum (Parâmetros Curriculares Nacionais, PCN) include, as “temas transversais” for grades 1 to 4, “Ética, Meio Ambiente, Pluralidade Cultural, Saúde e Orientação Sexual”; and the same for grades 4 to 8, with the addition of “Trabalho” and “Consumo” (Parâmetros Curriculares Nacionais, <http://www.mec.gov.br/sef/ensfund/paramnac.shtm>).

²²The origin of the concept is attributed to Max Weber, for whom the ethic values of Protestantism created the moral fabric for rational behavior and capitalism; and by Alexis de Tocqueville, who wrote about the importance of community life and social networks. More recently, this notion was taken up by Robert D. Putnam, in his books on Italy (*Making Democracy Work*, Princeton, 1993) and the United States (*Bowling Alone: The Collapse and Revival of American Community*, Simon and Schuster, 2000). Then, it was adopted and disseminated by Francis Fukuyama, for whom “social capital is a capability that arises from the prevalence of trust in society”, and is usually created and transmitted through cultural mechanisms such as religion, tradition or historical habit”. F. Fukuyama, *Trust - The Social Virtues and the Creation of Prosperity*, The Free Press, 1995.

²³On this issue, the specialists and influentials in the panels had different views. For specialists, the probability that education would have a positive impact on equity was not very high, 3.3 in a scale of 5 to 1; influentials, however, averaged 3.75, being therefore much more optimistic on this regard.

to show the highest levels of income inequality²⁴. The opposite view is that, if no new jobs and opportunities are created, education would work just as a screening device to distribute the existing opportunities according to educational credentials, which depend, in turn, on the resources the student's families can invest in their education. A larger supply of educated persons could reduce the market value of the credentials of the more educated, but would not lead, by itself, to the creation of additional wealth. When credentials are more important than effective knowledge and competence, there is no incentive to improve the learning contents of education, which remains a ritualistic and bureaucratic procedure.

THE ROLE OF INTERNATIONAL ORGANIZATIONS

The panelists believe that international and multi-lateral organizations will increase their presence in the years to come, but tend to be negative about their probable impact.

Table 3
The role of international organizations

	Probability (1, very unlikely; 5; very likely)	Impact (1, very negative; 5, very positive)
International organizations --the United Nations, the World Bank, IDB-- will increase their presence and influence in the shaping of national education policies in the region	<p>x: 3.65 sd: 1.03</p>	<p>x: 2,97 sd: 1.11</p>

International and multi-lateral organizations can influence education in different ways. Recently, the World Bank and the Interamerican Development Bank have placed education very high on their agendas, and have developed studies and prepared policy papers establishing strategies and priorities, which they can support through long-term loans and technical assistance. Canada, Spain, the United States, Sweden, England, and several other developed countries have their own national agendas for international cooperation, as do private institutions such as the Ford, McArthur and Kellogg foundations. UNESCO and other United Nations institutions have fewer resources to invest, and work developing studies and trying to build consensus among national decision makers in the identification of main issues and trends, and in the diffusion of best practices. Regional meetings of educational authorities and specialists occur frequently. For small and poorer countries, international help, both technical and financial, can be crucial for their education

²⁴ Ricardo Paes e Barros, Ricardo Henriques and Rosane Mendonça, "Education and equitable economic development", *Economica* 1, 1, 2000. Extremely poor countries, such as Bangladesh or Moçambique, with just a few hundred dollars of per capita income, do not show large income differences in their population. Brazil and South Africa, with per capita incomes close to five thousand dollars, present the highest levels of income inequality in the World. In general, income inequality in Latin America tends to be very high.

systems. For larger countries, such help can play very significant roles in defining priorities, setting up standards, and focusing resources in some specific programs. In the past, international organizations tended to focus their attention on education as a resource for economic development, with emphasis on skills and technical learning. Today, the attention is geared towards problems of poverty, equity, empowerment and the conditions of special groups, such as women, native populations, and blacks.

While the potential benefits of international cooperation and assistance seem obvious, the actual effects these multiple influences are having in national systems of education, for good or for worse, are still to be analyzed. The dominant view of the panel, that their impact is more on the negative side, deserves careful consideration. Large, internationally funded projects are prone to mismanagement and waste, can lead to the creation of parallel bureaucracies that leave the traditional ones unchanged, and may not lead to significant change when the projects end. Multilateral and non-government organizations may be using simplistic, generalized and ideologically motivated agendas.

EDUCATION AND THE JOB MARKET

The relationships between education and the requirements of the job market are changing and will continue to change in the next fifteen years, but there is no clear consensus on several characteristics of this change, or on its impact. Panel members expect higher education institutions to differentiate further among academic and vocational, or technical institutions, but do not see this trend as having a very significant impact. They tend to believe also that schools, especially at the secondary level, are coming closer to the marketplace, and this will make its contents more relevant for the students. However, they are divided in terms of the possible dilemma between general knowledge, which would require increased emphasis on broad skills, and a more narrow, targeted emphasis on vocational education professional skills. Many panel members commented on this issue, pointing out that these two alternatives should not be treated as mutually exclusive.²⁵

25 Divonzir Gusso, in his comments, objected to the way the question was formulated in the questionnaire. For him, "a proposição deveria haver empregado o termo 'competências cognitivas e sociais básicas' em lugar de 'conhecimentos de tipo geral' como antinomia dos resultados da 'educação profissional e vocacional' orientada para competências técnicas específicas para os postos de trabalho.

Table 4
Changes in education - job market relations.

	Probability (1, very unlikely; 5, very likely)	Impact (1, very negative; 5, very positive)
There will be increasing Differentiation between university preparatory institutions and those offering earlier and more practical training for the labor market.	<p>increase of educational stratification</p> <p>x: 3.78 sd: 0.90</p>	<p>increase of educational stratification</p> <p>x: 3.18 sd: 1.21</p>
The teaching of science and technology will receive greater emphasis starting in the early grades in order to er prepare students for the labor market	<p>greater emphasis on s&t</p> <p>x: 3.71 sd: 1.01</p>	<p>greater emphasis on s&t</p> <p>x: 3.90 sd: 1.02</p>
There will be an increasingly close relationship between secondary education and the workplace, thus resolving the problem of relevance of content offered at this educational level.	<p>secondary education and labor</p> <p>x: 3.33 sd: 1.04</p>	<p>secondary education and labor</p> <p>x: 3.71 sd: 1.09</p>
The job markets will increasingly require general knowledge with resulting losses in relevance for professional and vocational education.	<p>basic learning</p> <p>x: 3.19 sd: 1.24</p>	<p>basic learning</p> <p>x: 3.12 sd: 1,03</p>

There is no question that students who receive a broad and well-rounded education, master the basic concepts of language, mathematics and science and learn about the past and present conditions of their society, are more likely to find good jobs, and are more likely to become informed citizens, than those who receive only a narrow technical training. In practice, however, societies providing universal or quasi-universal secondary education have been unable to offer the same kind of education to everyone. There are many explanations for this, from the implicit relations between "general education" and specific class or ethnic culture and values, to the unequal distribution of learning abilities in the populations. Another, simpler explanation is

that students coming from poorer families need to start working earlier, and need to get the necessary training.

Most European countries developed dual or multiple systems of secondary education, which divide students at an earlier age, and direct them either to a more academic or to a more professionally-oriented learning path. This diversification was compatible with the division of labor that was typical of the "Fordist" or "Taylorist" industrial era, with a relatively small strata of "white collars", managers, and a large number of specialized "blue collars" workers.

The Latin American and Caribbean countries attempted to follow similar paths, but much less successfully, because the region lacked a well-developed industrial and services sector in which the professionally trained student could find employment. Indeed, the best experiences of professional and vocational training in the region were those provided directly by the business sector, such as the SENAI and SENAC systems in Brazil; but they remained limited to a small number of students.

This pattern of diversification and differentiation is being questioned today from two perspectives. First, there is the notion that professional and vocational education is incompatible with the demands of the new economy, where technologies changes constantly, the job-market is highly unstable, and most activities are knowledge-intensive, requiring broad knowledge and communication skills, rather than narrow specialties. Second, that differentiated systems are discriminatory, relegating students from technical and vocational institutions to low-prestige jobs, and curtailing their chances to advance to higher education degrees.

Technological modernization and new requirements in the workplace

The modernization of technology, especially with the introduction of micro-electronics and the growing importance of communications, has changed processes and made it possible to integrate activities heretofore carried out in separate locales. This compresses both time and space, reducing the size of productive units. The consequence for workers has been a growing need for people with multiple skills and the need to be able manage processes even at relatively low occupational levels (...)

Increasingly, this model appears to describe the future of and be a condition for the viability of productive endeavors of a certain magnitude. But it is still incipient in quantitative terms in the region. Throughout the region, we increasingly encounter productive networks, groups of companies or "clusters" on the same production line, as well as latest generation technical innovations and integrated production that cross national boundaries. But there are also a variety of small companies using obsolete technologies and which survive in isolated niches, as well as others that employ very unskilled labor in the last stages of the productive process. These are piece-work finishing and subsidiary (for example, cleaning) services of companies of a higher technological level. Finally, the informal sector continues to be a major employer in the region. Without losing its heterogeneous character, it is both a "refuge" for unskilled labor excluded from the formal sector, and the cradle of small companies often with high investment in human capital and the possibility of developing in new niches in the market.

María Antonia Gallart, Job Training in Latin America, Present and Future

The reality in Latin America, however, is that, first, as shown by Maria Antonia Gallart, only a small portion of the labor market follows the expected pattern of the "new economy", and second, that the mass secondary education systems which are being hastily built in many countries are unlikely to provide the kind of quality, all-encompassing general education they are supposed to. The OECD countries, as described by João Batista de Oliveira, are not dismantling their systems of professional and vocational education, but are adapting them to the new times. One of the key explanations for their success is "contextualization" - abstract concepts and general skills are learned together with practical experience in concrete work

situations, and approach that seems to work better than the formal teaching which is typical of conventional secondary schools.

Effects of school differentiation in developed countries

Concerning the effect of curricular differentiation and stratification on academic achievement and other inequality indicators, studies show a marked difference between what happens in Europe and in the United States. Ayalon and Gamoran (2000) compared the results of this differentiation in the United States and Israel, which also has a diversified secondary education system, to European models. The study documents how diversification of secondary schooling of the European variety contributes in practice to decreasing inequalities and increasing student academic achievement. One of the explanations for the success of European models may be the fact that in those countries diversification (and contextualization) help at-risk students and those with less academic background to better master abstract concepts. In the United States, the lack of explicit diversification, to guarantee "formal equality of opportunity" ends up creating curricula that is inadequate or of worse quality than for students who with access to diversified curricula or schools.

Finally, from the point of view of its development, what one notes in diversified secondary education systems in OECD countries, above all in Europe, are two trends that point to new paths for job education. On the one hand, these courses increase classroom time and levels of demand in regard to conceptual components and level of abstraction. On the other, these schools and courses tend to increase the objective of the courses and their applications, diminishing specialization. In none of those countries, including the United States, does one note any trend to eliminate technical courses or curricular unification. Nevertheless, in countries where technical skills do not always encounter a direct application in the labor market, due to economic restructuring, technical and job training institutions are proud when a student graduates in one area and works in another. For them, this is proof that the student has learned to generalize.

João Batista Araújo e Oliveira, Middle-Level Education in Latin America: Diversification and Equity

The policy recommendations that follow from the papers by Oliveira and Gallart seem straightforward. Basic skills are obviously important, and should be provided, as much and as well as possible, during the first eight or nine years of basic school. Secondary education, particularly if taught in traditional ways by ill-trained teachers for students with limited backgrounds, is not likely provide most students with the kinds of general skills that are supposed to be required by the new economy. The labor market in Latin America is not restricted to high-technology firms; it still has a large space for skilled and semi-skilled workers, and it is better to prepare the young to occupy these jobs than to lure them into an academic path from which they are very likely to drop out before gaining the expected rewards. A new emphasis on technical and vocational education should be carefully distinguished from segmentation, and students should have clear mechanisms to move back and forth between different types of secondary education, and from them to higher degrees, if they so wish.

A proposed new model for general and professional education in Latin America

- Quality basic education is not only the acquisition of applied basic oral expression, writing, and mathematics skills. It is also the ability to resolve problems and handle basic technologies (for example, using computers). Special emphasis should therefore be placed on the basic teaching of the underprivileged in order to increase retention and relevance of knowledge.
- Use target programs to reach young people and adults who are currently at risk, avoiding overlapping of programs and fostering the coordination of efforts at the local, provincial, and national levels. Current initiatives in some countries that seek partnerships between national and local governments and private institutions may serve as precedents in this direction. These programs should include mechanisms for on-going external assessment.
- Maintain a limited quantity of quality technical schools for instruction following nine or ten years of basic education. The number of such schools should be adapted to the characteristics of each country, coordinated with private companies, either according to sector or to geographic area and with curricula centered on

processes and not on occupations and which are more technical than vocational.

- It would be best for this to be coordinated with post-secondary technical education, sharing workshops and laboratories, avoiding in this manner low-quality teaching²⁶. They should be monitored through mechanisms of follow-up of graduates
- Flexible professional training adapted to different users, and not only to active workers. Its organization would depend on each country and its institutional past. The important thing is that there be an interface with formal education, offering opportunities for more specific training to young people finishing basic education programs. It is indispensable that it be skills-based and linked with industry associations and with unions in order to offer training in the appropriate occupational niches, providing possibilities to develop training tracks for its users. It should be decentralized, but in this case as well strategic partnerships should be sought at the local level. The State would have to provide services of mid and long-term support such as curricular development, training of trainers, development of teaching material, etc. In this item, as in the others, outside assessment and on-going updating of course offerings are crucial.
- From the quantitative point of view, it is desirable that the population as a whole acquire citizenship and work skills, and that there is a pool of people that possess basic technical education sufficiently general for them to be able to adapt to technological changes. Professional training should be of short and medium duration in order to adapt itself to occupational changes, and cover a significant portion of the workforce, allowing for life-long training.

María Antonia Gallart, Job Training in Latin America: Past, Present, and Future

SCIENCE EDUCATION AND THE NEW ECONOMY

One issue that cuts across the questions of market demands and school differentiation is the intensity and nature of science education that students should receive. Jorge Allende, on his paper on the current impact of the developments of science in society, expresses his concern for the high levels of scientific illiteracy in modern societies, and makes a plea for more for efforts to close this gap. For him,

"El aprendizaje de las ciencias tiene que iniciarse desde los primeros años de escolaridad. Es fundamental que los niños aprendan el enfoque de exploración, del juego experimental en que tratamos de contestar preguntas sobre el hombre y el universo, no memorizando las respuestas, sino buscando contestaciones con simples herramientas que manipulamos con nuestras propias manos. Esta metódica esta plenamente de acuerdo con los postulados de la reforma educacional en que se le otorga la mayor importancia a la actividad del educando versus el discurso del docente. Es importante que nuestros niños experimenten tempranamente el gozo del descubrimiento y que aprendan la fascinación de la ciencia. El método científico tiene además muchos valores formativos como la sana crítica, la rigurosidad en el sacar conclusiones y el absoluto respeto por la verdad. Los niños que han conocido a la ciencia y a los científicos desde sus primeros años serán ciudadanos que se interesaran por la ciencia y valoraran la labor que hacen los científicos".²⁷

His concern is not with the narrow functionality of scientific and technological education for the job market, but with science as a central component of modern Western culture, based on the appreciation of facts, methodical doubt, and rationality. In part, his concern coincides with that of many other authors who write about the need to make education more creative, more meaningful to the student, and less based on rote learning and routine work. In this sense, the problems of science

26 The model would be that of technological secondary education implemented in the United States ("tech-prep") or in France ("enseignement technologique"), adapted to the institutional realities of Latin America.

27 Jorge E. Allende, *The impact of the progress of science on society during the first years of the XXI century. The context for education*

education are not different from those of the "other culture", the humanities, which is also taught in most of our schools in ways that are meaningless to most students and to a large portion of the teachers themselves.

The scientific and humanistic illiteracy of students and teachers is related, no doubt, to the fact that formal education is becoming universal, and cannot be restrained to the intellectual canons of what used to be considered a proper humanistic or scientific upbringing. The question is not just of poor education, but of different ways of understanding what the proper contents of an education should be. Writing for an South African audience, Peter Scott, the Vice-Chancellor of Kingston University in England, noted that in recent years two phenomena have reshaped the intellectual culture of the West. One was the intellectual criticism of modernism and its implications. "A frontier has been crossed between the 'modern' system organized, for all its restlessness, around universal values and 'unified subjects', and *posthistoire*, the trackless territory of deconstructed meanings, relative values, fleeting truths". The second phenomenon was massification of higher education. "As the social constituency of higher education has been extended to new kinds of students that lack the academic and cultural references instinctively understood by their élite predecessors and, subsequently, entire populations have been drawn into a scientific culture (however dilute, new subjects, new patterns of teaching, new forms of research have developed to fit these new social 'facts'". He concludes by saying that, "in terms of its cognitive values the intellectual culture of the West is more open and less sure, and this openness and these doubts are epistemological as well as substantive. And, in terms of its social practices, in the processes of institutionalization and professionalization, similar novelties can be observed".²⁸

The conclusion is not that the intellectual and cultural assumptions of Western modern societies have lost their value, but that there may be different ways of learning about what is relevant and important for our societies, regarding contents and the ways these contents are spread out and appropriated in different contexts. Peter Scott concludes his presentation saying that,

"The globalization of science and technology does not imply a universal science and technology impervious to local variation, but the opposite, a socially distributed (and democratic?) knowledge production system that fully reflects national, ethnic, class, economic and cultural differences. In other words, the presence of global competition cannot be used as an excuse to abolish these differences. Globalization is about the incorporation of 'interior' spaces, previously untouched by elite culture and "objective" science, as much as (or more than?) competition for "exterior" spaces, in terms of world markets for science and technology, goods and services".²⁹

²⁸ Peter Scott, "Changes in knowledge production and dissemination in a context of globalization", in N. Cloete and others, editors, *Knowledge, Identity and Curriculum Transformation in Africa*, Maskew Miller Longman, 1997, pp. 23-24.

²⁹ P. 40.

CHANGES IN THE ORGANIZATION AND FUNCTIONING OF EDUCATIONAL INSTITUTIONS AND PRACTICES.

SCOPE AND COVERAGE

Several questions in the survey addressed issues related to possible changes in the scope and coverage provided by education in the region. Will early childhood education continue to expand? What will happen with life-long, continuous education? Can we expect changes in the way education is provided in society, through formal schooling? What will happen with the schools?

Table 5
Changes in scope and coverage of educational institutions.

	Probability (1, very unlikely; 5, very likely)	Impact (1, very negative; 5, very positive)
Progressive universalization of early education programs will significantly improve basic and secondary education.	<p>unilateralization of early - childhood education</p> <p>x: 3.84 sd: 0.95</p>	<p>unilateralization of early - childhood education</p> <p>x: 4.42 sd: 0.87</p>
Other forms of learning and education delivery --distance, on-the-job, new technologies --will progressively reduce the relevance of systems of formal education.	<p>non-formal education</p> <p>x: 3.26 sd: 1.05</p>	<p>non-formal education</p> <p>x: 3.24 sd: 1,16</p>
Current education systems will lose importance due to new forms of "continuing education" and "life-skills education".	<p>education through life</p> <p>x: 3.04 sd: 1.21</p>	<p>education through life</p> <p>x: 3.32 sd: 1.04</p>

One of the statements of the 1990 Jomtien declaration was that "Education starts at birth", and that early childhood education should be provided "through arrangements involving families, communities or institutional programmes, as appropriate." Several Latin American and Caribbean countries experienced a very significant growth in early childhood education enrollments in the last several years; the panelists predict that this trend will continue, and believe that this expansion will have a very positive impact in the region.

The notion that early childhood care and education, when properly done, can be an important factor in the academic achievements of disadvantaged children seems to be well established, especially when education is part of a broader program of child care and support. Robert Myers, who evaluated early childhood education in Latin America for the *Education for All* initiative, believes in its importance, but is very critical about what has happened in Latin America in recent years:

"Because programming for ECCD (Early Childhood Care and Development) is at an early stage in many countries, it is possible to construct programmes in innovative ways, taking into account differing conditions, seeking convergence, and involving local communities in the process. This implies a need to move slowly, to experiment and reinvent, to build collaborative enterprises, to nurture, to support a variety of initiatives and to build capacity. Unfortunately, these needs run counter to social and political desires to move quickly so that as many people as possible are served. They run counter to bureaucratic desires to simplify administration by providing the same service to all and to avoid collaboration across sectoral lines. And they run counter to the characteristics of many international organizations where promotion and success is equated with the numbers of children and families served, with the ability to promote the particular doctrine of the agency, and/or with the ability to move money. The quantitative focus and a sense of urgency inhibits developing quality programmes, current rhetoric notwithstanding".³⁰

This comment could be applied also to the quantitative expansion of primary and secondary, which led most countries to extend the number of years required for students to obtain their first education degrees, without any assurance that this extension would be related to a corresponding increase in the acquisition of knowledge and skills.

The strong support given by panelists to the extension of formal education to the early years contrasts with their limited support to two propositions about a future in which the current school systems would start to lose their importance, to the benefit of other forms of education - done at distance, on the job, computer assisted, and regardless of age - provided by persons and institutions outside the school systems, and independently from formally established curricula, exams and teaching sequences. Although the panelist recognize the difficulties - financial, administrative, cultural - in making the current systems of formal education to work better, they seem reluctant to embrace a more radical view of a knowledge society of the future.³¹

³⁰ Robert G. Myers, *Early childhood care and development*, a paper prepared for presentation at The Education For All (EFA) regional meeting Santo Domingo, February 10, 2000

³¹ See, for an extended discussion of life-long learning, the paper of José Joaquín Brunner, *Globalización y el futuro de la educación: tendencias, desafíos, estrategias*.

Life-long learning for all

The new idea underpinning 'lifelong learning for all' goes beyond providing a second or third chance for adults and proposes that everyone should be able, motivated and actively encouraged to learn throughout life. This view of learning embraces individual and social developments of all kind and in all settings—formally, in schools, vocational, tertiary and adult education institutions, and non-formally, at home, at work, and in the community. The approach is system-wide; it focuses on the standards of knowledge and skills needed by all, regardless of age. [...] As such, it is geared to serve several objectives: to foster personal development, including the use of time outside of work (including in retirement); to strengthen democratic values; to cultivate community life; to maintain social cohesion; and to promote innovation, productivity and economic growth.

OECD (1996) Lifelong Learning for All; Paris: OECD. Quoted by José Joaquín Brunner, Globalización y el futuro de la educación: precisiones, desafíos y estrategias.

THE IMPACT OF NEW TECHNOLOGIES

The panelists expected the new information technologies to have a positive effect in the functioning of schools and in the provision of education, both for teachers and for students, but did not expect them to play an important role in reducing social differences. Nor do they believe that the technologies will help poorer countries to move ahead faster and to close the education gap.

Table 6
The impact of new technologies

	Probability (1, very unlikely; 5, very likely)	Impact (1, very negative; 5, very positive)
New communication technologies will make current forms of school organization obsolete, reducing costs, giving teachers and students access to improved content, and making education more relevant in people's lives.	<p>x: 3.46 sd: 1,04</p>	<p>x: 3.87 sd: 0,94</p>
New technologies will help reduce education differences between rural and urban populations	<p>x: 2.98 sd: 1.18</p>	<p>x: 4.09 sd: 1.05</p>
New education technologies will allow the poorest countries that currently suffer from poor education coverage and quality to advance rapidly arriving at the same level as the other countries	<p>x: 2.42 sd: 0.85</p>	<p>x: 3.86 sd: 1.16</p>

In his paper, Brunner presents a powerful view of the expected impact of the new information and computer technologies (NICT) on education, which may change

it in profound ways, through life learning, distance education, distributed learning and the institutionalization of networks. These technologies, because of their rapidly decreasing costs and growing capabilities, can be powerful instruments for less developed countries to move faster, and at lower costs, toward meeting the educational challenges of the 21st century. Leon Trahtemberg gives a picture of what one could expect from a "school of the 21st Century": students will learn about computers and communications, and use them as support for all learning activities; they will work with much more independence, with different combinations of individual and team-work; the barriers between school and society will disappear; each student will follow his or her own rhythm of study and learning; and interdisciplinary and practical learning will be the rule, rather than the exception.³²

Technological Functionality and the Use of NTIC Applied to Education	
Functionality	Uses
Information resource (digital content)	Provides access and information to support learning processes (www sites and specialized portals), interactive CD- roms, hypermedia, electronic textbooks
Instruments and communication	Facilitates collaborative interactive learning (synchronic and non-synchronic conferences, tele-learning, the creation of learning communities and knowledge networks) (communication through natural language in restricted areas and with particular vocabulary)
Contextualization of content	Places learning material in educationally rich contexts (that operate as "anchors", for example, <i>problem-based learning</i> NASA-type classrooms or CGVR style "simulations" creating a virtual reality environment that involves the student and makes him or her operate as if in a real situation. It is estimated that "micro-worlds" will be available within 5 to 7 years.
Construction kits	Provide tools - such as HTML or VRML editors - that allow students to construct/understand complex phenomena (software for three dimensional modeling, architectural designs)
Visualization/manipulation instruments	Present phenomena for analysis and manipulation (visualization instruments such as maps, graphic presentation of large quantities of data and manipulation such as "Sim-City"-style model-based simulations.
Virtual tutorial support functions for students	Identify sub-optimum performance standards through "cognitive audit trails" and presentation of "intelligent" tutorial support in order to improve performance in delimited domains. Within 5 to 7 years, there will be semi-intelligent devices installed in applications that support user-defined actions. In 7 to 10 years: "conscious sensors" that operate through biofeedback input from the computer user, facilitating the monitoring of emotional states.
José Joaquín Brunner, Globalization and the Future of Education: Trends, Challenges, and Strategies	

The passage from the current, traditional education into the "school of the 21st Century," however, is not unproblematic. The new information and computer technologies are very rapid, efficient and productive when they work, but require a very complex infrastructure that is usually not present in the poorest regions: a reliable supply of electricity, good quality telephone lines, readily available technical assistance, and local competence to set up the equipment, install the software, establish and man the networks. Moreover, using a computer can be seen as an

³² Leon Trahtemberg, *El impacto previsible de las nuevas tecnologías en la enseñanza y organización escolar*.

awesome challenge for the non-initiated. The expectation is that, as the technology matures, the computer can become cheaper, user-friendlier, and less demanding in terms of infrastructure and support. Computers could become as accessible and transparent for the user as TV sets and refrigerators. It is possible to spot some trends in this direction, but there are powerful opposite trends as well: an intense competition of suppliers to provide richer and more complex services, with the use complex data-banks and search mechanisms, images, movies and more demanding long distance, real-time interactions. On one hand, computer and Internet usage continue to expand at very high rates, with rapidly decreasing costs per unit, suggesting that in a few years they will become universal. At the same time, the requirements of infrastructure and tacit knowledge for their use are also growing, suggesting that a "digital gap" may be emerging among a minority that can put the new technologies to good use and a large majority who cannot.

To have the equipment and access to the networks, however, is not enough: the next step is to make sure that the contents available to the students are appropriate, and that these contents can actually reach students in a meaningful way. An essential link in this process is the schoolteacher. The new computer and information technologies can be very useful to provide teachers and students with first-rate pedagogical materials, compensating for the teacher's pedagogical limitations. However, the students will not learn how to go after the available learning materials if the teacher is not at his or her side to provide a model and help in this task.

<i>The role of teachers in the School of the 21st Century</i>
Teaching a course on a network is very different from doing so in the traditional manner. It requires that teachers work harder to secure substantive interaction between participants. Teachers should monitor and model the on-line discussions, and encourage students to respond to one another. This demands that teachers spend the day answering questions, monitoring discussions, and providing feedback. They must at all times be facilitators; if not, students can too easily become distracted and disinterested. Teachers must be go on-line several times during the day, read students notes and answer them, not to speak of correcting homework and reviewing individual or group projects which also require time. They must dedicate four times more time than they do to conventional classes, as well as the training time that they have to invest in order to be able to administer these courses. In addition, teachers should work with the affective dimensions of teaching that are usually overlooked when one overestimates the value of computers in education.

The potential benefits of the new information and computer technologies for education in the region can be harnessed, but cannot be taken for granted.³³ To have the desired impact, they require careful and long-term investments in infrastructure, adequate decisions in the choice of technologies and content, very significant investments in the development of appropriate teaching and learning materials, and intense work to convince and enable the teachers to take up their new roles. In this process, public school systems will be subject to intense pressure and competition. If they fail to adapt to the new times, they will be perceived as obsolete and irrelevant, and lose recognition and prestige regarding the new information and education

³³What is not clear is with what speed schools will be able to adopt to the new circumstances, make the transition from the analog to the digital world, and thus take advantage of the possibilities that NTIC offer in their most advanced version. Nor is it clear how many schools and families will be able to complete this transition, and how many will fall to the wayside, thus widening even more the gap in society. Nor do we yet know with certainty what results and real advantages for learning will be incorporated into these technologies or what the cost will be for governments and private citizens. José Joaquín Brunner, Globalization and the Future of Education

providers. If they succeed, however, they can finally obtain the instruments they need to fulfill their historic mandate to provide good quality and relevant education for all.

DEALING WITH THE QUALITY OF EDUCATION

Two questions in the Delphi survey addressed issues related with policies aimed to improve the quality of education, one related to the quantitative assessment of student and teacher competence, and another related to the teaching profession. The panelists saw a trend toward a larger use of quantitative assessments of competence and achievement, and were divided about their positive or negative impacts. They expected some changes to take place in the teaching profession, but were also divided about their consequences. Two other issues related to the content of education were discussed in the workshop: multi-cultural education and the relationships between basic and higher education.

QUANTITATIVE ASSESSMENTS

Table 7
Quantitative assessments.

	Probability (1, very unlikely; 5, very likely)	Impact (1, very negative; 5, very positive)
Quantitative assesment of student and teacher achievement will be the major reference mechanism used to guide government education policies.	<p>quantitative evaluation</p> <p>x: 3.78 sd: 0.99</p>	<p>quantitative evaluation</p> <p>x: 3.35 sd: 1.15</p>

Assessments are part of the daily life of education institutions, but the quest for quantifiable standards and comparative measurements is relatively new. As the trend for decentralization and local autonomy increases, the need to make independent assessments of what, how much and how well students are learning, and, by implication, to know what are the good learning experiences to be followed, and the bad ones to be avoided, becomes paramount. In the last decade, most countries in the region³⁴ established national, and in some cases, sub-national, systems for assessing student performance. As the first results have begun to appear, showing the low achievements of students in most education systems in the region, significant debates are also emerging about the accuracy, meaning and valid utilization of these evaluations.

In her paper, Patricia Arregui identifies the ample variety of goals that can be pursued by different assessment systems. She also describes some of the problems that emerge when achievement tests that were designed with one specific set of

³⁴ Some countries, notably Chile and Mexico, have had considerably longer experiences with national achievement tests, while a few others have experimented with large-scale testing in a non-continuous mode throughout the last two decades.

objectives are used for different and unplanned new purposes. She also notes various problems, some technical, some political, which are derived from the insufficient previous consideration and social legitimation of learning expectations and assessment methodologies.

For example, many of the current assessment instruments have been constructed and analyzed more or less following the earlier and traditional “norm-oriented” testing procedures. Norm-based tests can certainly be useful for assessing how various groups of students perform in comparison with other reference groups, or to rank and select students or schools for various purposes. Yet, those test results are often reported as if they were “criterion-” or “standard-referenced”, that is, as if they measured whether most students are learning what they are expected to know at a certain stage in their school cycle – i.e., “the average student only learns 48% of the curriculum”: an inference which, in most cases, is not valid.

<i>Various purposes that school learning achievement assessment systems can pursue</i>
<p>Inform public opinion and generate an "assessment culture"</p> <p>Contribute to the production of knowledge, providing inputs for applied research on the functioning of education systems, teaching practices, the impact of social variables on child learning (also identify the determining factors for achievement) and the most effective kinds of interventions to improve learning..</p> <p>"Map" the current status of the education system in order to identify intervention priority areas or units and types of needed interventions, in order to guarantee equality of opportunity of learning and to thereby focus resources</p> <p>Communicate achievement values and expectations.</p> <p>Motivate improvement and achievement through comparison, competition, or emulation.</p> <p>Alert public opinion regarding deficiencies in results of education systems and regarding the need to support interventions for their improvement.</p> <p>Identify clear, measurable and communicable learning - based goals for the efforts of improving the education system which facilitate mobilization and support of public opinion and of other responsible parties.</p> <p>Provide feedback to schools and to teachers so that they may examine in detail the results of their work and improve their pedagogical practices.</p> <p>Provide families with information that permits them to assess and to control school quality.</p> <p>Contribute to the establishment (or to monitoring the achievement of) quality standards for education systems.</p> <p>Certify mastery of a core of knowledge and abilities or skills of students who finish a particular level of schooling.</p> <p>Select or order students (or schools or jurisdictions) in order to certify their eligibility for certain privileges, access to programs, or, if the case applies, sanctions.</p> <p>Assess the impact of policies, innovations, or specific programs.</p> <p>Provide feedback for curricula and study plans.</p> <p>Carry out cost-benefit types of studies that can help guide decisions regarding the most efficient and effective distribution of always-scarce resources.</p> <p>Offer persuasive arguments to obtain more budgetary resources or to propose changes in the general direction of education systems.</p> <p>Demonstrate the importance of the teacher factor in learning and influence teacher education, training, and achievement.</p> <p>Assess teacher productivity and the effects of establishing an adequate incentive system.</p> <p>Promote accountability of all those involved in the education process, include students themselves.</p> <p><i>Patricia Arregui, Systems for determining and assessing school learning achievement goals as instruments to improve quality, equity, and accountability of education processes in Latin America.</i></p>

Criterion-referenced tests, as well as the more sophisticated measuring tools which do not rely as heavily as traditional instruments do on multiple-choice items, are often more difficult to develop. Local capacities for test construction and analysis are limited in most Latin American and Caribbean countries, given their short experience with these evaluation approaches and techniques. Yet, urgencies and external demands for policy and program evaluation tools, often lead countries hastily

put together their assessment “systems”, without a long-term perspective that includes gradual and effective capacity building.

Ideally, countries and sub-national units should build some significant degree of consensus on the standards they would like to have for their children, and the educational community should be confident that these standards are reflected in the assessment instruments. This is not an easy task, given the complex technicalities of standards setting and testing, the lack of a tradition of social consultation in regard to education policy-making, and the opposition these assessments are likely to encounter from some segments of the education community – particularly if they haven’t had any opportunity to participate in policy discussions surrounding system implementation. Part of this opposition might well be just self-protection (assessment results can be used appropriately or inappropriately for the indirect evaluation of teachers and school principals, exposing problems, difficulties and limitations that remain hidden when no reliable information on results exists). Yet another part of the opposition is conceptual: some schools of thought in pedagogy reject the validity of statistical measurements, or are afraid of what they can mean as imposition of specific contents and orientations on education systems.

The case for quantitative assessments in Latin America also suffers from the inability of most governments to make good use of the results they are obtaining. Surely, the sheer publication of assessment results can be a powerful element to stimulate healthy competition for better results. However, a far better practice would be to use assessments to correctly identify problems affecting specific areas, institutions or learning subjects, and to couple them with well-devised policy instruments to correct the problem. Assessments are increasingly seen in North America, Europe, Australia and New Zealand as important policy levers, but not so much in Latin America and the Caribbean.

The use of quantitative assessment may be driven also by international trends related to globalization. If an international firm wants to become established in a specific country in the region, or in a region within a country, it may well look at the achievement tests of the schools in the area, to learn about their chances to acquire competent employees; they can also look at the reputation of the higher education institutions, as sources for their higher management and technical staff. Good and reliable assessments may be an important relative advantage in the attraction of external investments. This could lead specific regions or institutions to look for internationally accepted evaluations, rather than local and still unknown procedures.

For the latter and for other reasons, several Latin American countries have recently begun to participate in international comparative assessments promoted by different international organizations.³⁵ However, the objectives of such participation

³⁵ " Test of the Latin America Laboratory for the Assessment of Quality Education of the UNESCO Regional Office, in mathematics and language; PISA: Program for International Student Assessment of the OECD, in mathematics, science and language; TIMSS, TIMSS-R: International Trends in Mathematics and Science Study (former Third International Study of Mathematics and Science) of the IEA; RLS, PIRLS: International Test of Reading Comprehension of the IEA; CES: Civic Education Study of the IEA" (Arregui, p. 11)

have sometimes not been sufficiently considered and publicly discussed. Many government officials are not familiar with the experience of other countries who have been participating in such international efforts and how they have or have not benefited from that experience. Thus, some governments have withdrawn from such efforts when they have feared the comparative results would not be politically convenient in the short run.

As Patricia Arregui puts it, in the next few years it is likely that:

"Se pronunciará la tendencia hacia una mayor segmentación de "mercados evaluativos", con consecuencias en lo que se refiere a la equidad en las oportunidades de aprendizaje. Muchas escuelas e instituciones de educación superior privadas de elite se someterán a sistemas internacionales tipo Bachillerato Internacional o las que puedan producir y administrar directamente instituciones como ETS, con criterios o estándares internacionales de logros de aprendizaje, mientras que la mayoría de las escuelas públicas serían sujetos de evaluaciones referidas a criterios más localistas y de menor nivel de expectativas o exigencias."

THE TEACHING PROFESSION

Without competent and motivated teachers, no new technologies could be of much help, and no educational reform can succeed. What will happen with the teaching profession in the next fifteen years? And what can be done about it?

Table 8
Changes in the teaching profession

	Probability (1, very unlikely; 5; very likely)	Impact (1, very negative; 5, very positive)
Current systems of teacher training and organization will undergo profound changes, with diminishing importance of pedagogical training. Education tasks will increasingly be the responsibility of communication, technology, and information specialists and of professionals from different disciplines.	<p>teaching training x: 3.30 sd: 1.01</p>	<p>teaching training x: 3.37 sd: 1.12</p>
Educator and teacher organizations will exert increasing influence in national education policies.	<p>teacher unionism x: 2.72 sd: 1.02</p>	<p>teacher unionism x: 3.22 sd: 1.08</p>

There is a widespread notion that school teachers in most countries in Latin America and the Caribbean are extremely ill-paid and ill-prepared for their tasks; and that this situation is getting worse, because of the growing budget limitations and lack

of priority given to education by governments in a context of budgetary restrictions. This notion comes from the fact that the social prestige attributed to the teaching profession today is usually lower than what it was in the past, and to be a schoolteacher is seldom a career of choice for young persons who have access to higher education. The evidence of the limited qualification of schoolteachers comes from the poor achievement of so many students, although this could be explained also by other factors, related to the students' social conditions, the school environment and the absence of appropriate books and other school materials.

Brazil, with high internal differences, may be typical of the region as a whole. The 1999 National Household Survey (PNAD), found about 2,200,00 teachers in primary and secondary education. Of those, 41% teach only in four-year (elementary) schools. They are predominantly female (71%, but 93% of those working only in elementary education, and 99% of those working in pre-school), and have held their jobs for 7 or 8 years on average. Their earnings depend much more on the education they have than on the kind of work they do. Teachers in schools with only the elementary level usually do not have more than a secondary education, work for small municipalities, and have low salaries. Teachers working in full basic education schools tend to work for state governments, are much more likely to have a higher education degree, particularly in the Southern states, and their earnings are more substantial. Teachers working in secondary education usually have a higher education degree, and their earnings are the highest, close to the earnings of specialists in pedagogic orientation with a similar education. For each level of education, earnings of teachers are lower than those of the population³⁶

type of activity or place of teaching	level of education									
	elementary education		fundamental		secondary		higher education		total	
	income	# of persons	income	# of persons	income	# of persons	income	# of persons	income	# of persons
secondary schools			209.62	1.474	439.79	17.678	1137.38	224.585	1098.57	261.876
basic schools (1-8)			435.68	1.174	454.08	119.599	962.08	273.094	808.94	419.440
elementary schools (1-4)	157.99	9.704	184.99	26.666	361.82	440.140	814.11	204.078	492.86	733.026
pre-school	175.00	824	260.73	8.690	311.58	83.019	901.41	26.852	451.42	123.823
other teaching activities	451.10	10.583	525.40	21.169	549.46	60.505	1088.28	27.164	656.49	147.379
pedagogic orientation	544.88	4.184	496.20	4.233	472.44	17.487	1278.97	73.321	1065.98	105.959
non-educational activities	401.66	10.349.491	331.33	18.118.885	614.37	9.899.020	2039.58	4.263.456	610.92	46.728.201
Total	401.52	10.374.786	331.34	18.182.291	598.86	10.637.448	1870.87	5.092.550	614.21	48.519.704

Source: IBGE, PNAD 1999, special tabulation. Earnings refer to "earnings of all activities".

This combination of relatively low income and public employment may help to explain why teachers in the Latin American and the Caribbean region tend to be strongly unionized and vocal in the defense of their interests, which they present as coinciding with the best interests of education as a whole. One could expect that, as their organized movement gets stronger, they could improve their salaries and working conditions, become more motivated, invest more in their own education, and benefit the students as a consequence. However, the panelists in our survey tended not to expect the teachers unions and education employees to play a significant role in the near future; nor did not believe that such a role would have a very significant impact. This perception is probably related to the fact that teachers' unions, while acting in defense of their needs, have often resisted projects of educational reform, which they tend to consider as threats to public education and to their professional standing. Another explanation for the limitations of the teacher movements may be that unions

³⁶ This table includes only persons between 18 and 65 years of age which reported some earning in the household survey. Earnings refer to all sources of income, taking into account the fact that many schoolteachers work in more than one shift, or more than one place, and can have two or more jobs.

tend to be stronger among better-educated teachers working for central or state governments, and the benefits they may receive from union actions do not spread out to those with higher needs, working in poorer regions and municipalities. The current trends of education reform, for better or worse, are coming from outside the schools - governments, entrepreneurs, international organizations, non-governmental organizations, social movements - and it is not surprising that the unions perceive reform as a threat, rather than as an opportunity.

The long-term strategy of most governments, and most teachers as well, is to improve the levels of formal education for all. In the past, a secondary-level teaching school was considered a socially acceptable qualification for middle-class girls, and they had no trouble teaching reading and writing skills to young children, together with some basic facts, values and attitudes. Today, most countries require a higher education degree for teaching at all levels. This requirement, together with the strong and immediate benefits associated with a higher education credential, is creating a very strong demand for higher education degrees, specially in the fields of education and pedagogy, which are not necessarily related to actual improvement in teachers' professional performance.

Ernesto Schiefelbein, in his paper, has presented a model of "learning workshops" which has the potential of moving away from the traditions of formal and bureaucratic teaching, as well as from the excesses of "creative" education which has been so fashionable in recent years. Different countries are devising and introducing new formats for teacher education, trying to move away from the more traditional pedagogical approach.³⁷ Valid as these proposals may be, the main problem is not to devise an ideal course program, but to provide proper qualifications to hundreds of thousands of present and future teachers who come usually from families with limited cultural resources, and who cannot afford to attend the best institutions of higher learning, where the most innovative pedagogical experiences are likely to take place³⁸.

Constructivism and the myth of the "creative" teacher
<p>The "myth" of the creative professor represents an impossible task that it generates voltages and it deteriorates the mental health of the teachers; it implies to surpass as productive creators as a Mozart or a Neruda. It agrees to remember that a similar myth in music does not exist (where de composers have bequeathed us the scores), neither in Medicine (where de knowledge is accumulated, for example, in Manual of Surgery), nor in Theater (that occupies the texts prepared by reputation writers), not in Ballet (thanks to the accumulated choreographies through the years), nor in Right (where codes and jurisprudence exist) or in Administration (where he has cases and simulations) In each one of these professions there was a 1 to 5% of this better representatives, equipped with special capacities of creation, that extended that legacy. The same it must happen in education.</p> <p>Ernesto Schiefelbein, Relations of the Superior Education with the Secondary Education: university transformation od education, investigation and extension.</p>

³⁷ See for instance Guiomar Namó de Mello, Formação inicial de professores para a educação básica: uma (re)visão radical, forthcoming.

³⁸ Cuatro años después de Jomtien, un estudio sobre la calidad de la educación, desarrollo, equidad y pobreza en la Región, auspiciado por la Oficina Regional de Educación para América Latina y el Caribe de la UNESCO concluía que a pesar de la existencia de experiencias en la Región para renovar los procesos pedagógicos, no había cambios significativos en la calidad del aprendizaje y en la formación docente. En esta valoración se insinuaban ya dos indicadores que han ido tomando relevancia en los debates sobre la evaluación de la calidad en los procesos pedagógicos en la Región: los resultados de aprendizaje e el desempeño docente'. María Amelia Palacios, *La educación en América Latina: cambios en los procesos pedagógicos*, p.4

A popular, but dubious response to the problems of teacher qualification is to provide them with short term, training courses. For the teacher, these courses can be an opportunity to get away from work routine, and the certificate received may qualify the teacher for a pay raise or a promotion. For state and municipal secretaries of education, such courses are a demonstration of concern with the quality of education, and providing them improves their standing with the teachers. There is thriving industry of teacher training, with specialized firms selling their services to educational agencies. Evaluations of these courses are usually limited to asking the participants themselves for their assessment, and, not surprisingly, these are almost routinely very positive.

A possible strategy for the short run is to provide the teachers with good quality teaching materials, through the use of distance learning technologies, coupled with permanent assessment of results for the students, and procedures to help the teacher and the student when the expected results are not forthcoming. The Telecurso 2000, a collection of carefully prepared TV courses developed by the Fundação Roberto Marinho in Brazil is being adopted by many public and private education administrations as a way to make sure that the students have access to good quality content, compensating for the limitations in teacher qualifications. Those who believe in the virtues of constructivism, and worry about the devaluation of the teacher's work, resist this provision of ready-made contents. The teacher's role, however, as argued by Rosa Torres and León Trahtemberg in their papers, remains crucial, but changes its character. The teachers' task becomes less the simple transmission of knowledge, and more that of a broker between students and the wealth of information that is reaching them. The Internet, as it becomes more efficient and readily available, may be a further step in this line, since it allows for two-way communication between the producer of content and teachers, as well as among teachers themselves, and provides them with an opportunity to search for different contents. The Chilean Internet Educativa³⁹ was conceived with this purpose in mind, and, as its contents improve, and teachers get more involved, it is a very important experiment to be watched. As teachers get involved in these content-rich and technologically powerful experiments, they are likely to become more interested, and to learn further. In the final analysis, the important choices are not between "ready-made" vs. "creative" methodologies, but between contents that are meaningless and irrelevant for teachers and students, and those that are meaningful and alive.

The survey also included a question about eventual changes in the teaching profession as a consequence of the new technologies and information age. The panel agreed that there was a tendency in this direction, but was divided about the positive or negative consequences of this trend. A corollary of the low prestige and earnings of the teaching profession is that there are not enough teachers being trained to respond to the expected growth in enrollments in secondary education in most countries in the region. One way to deal with this problem is to bring in young university students, graduates of primary and secondary schools, as an intermediary step in their professional careers. These students and young graduates could bring to basic education their knowledge about recent developments in their areas of study and work, and the strength of their enthusiasm, and would be a welcome alternative to so

³⁹ <http://www.ie2000.cl>

many worn-out and frustrated professional teachers. Today, this practice is restricted by the requirements that teachers need pedagogical training, in addition to the specific knowledge on their areas of competence. But it could be argued that persons involved or coming out of higher education have already an implicit knowledge of pedagogy, and could be ready to teach young students with a limited amount of coaching and practical supervision.

The widespread use of practitioners from other disciplines, plus the adoption of advanced communication technologies, could bridge the need to wait for hundreds of thousands of students to go through the new higher education teaching courses, and to wait that these courses reach acceptable levels of quality. These new practices would transform the teaching profession very deeply. Most of the pedagogic effort would be concentrated in the first years of education, in the attention to groups at risk, in the preparation of good pedagogical materials, in the development of appropriate delivery systems, and in the assessment of results. Highly trained professional educators are likely to remain the leaders of this transformed educational environment, but they will have to deal with a much more fluid, complex and richer professional field.

CONCLUSION: THE SCHOOL OF THE FUTURE.

It is possible to summarize this survey on the perspectives of education for Latin America and the Caribbean by saying that the region will not reach the expected levels of educational development and maturity within the next fifteen years if it continues to follow the current trends. The economy will not grow very significantly; governments will not have much more resources; and the teaching profession will not grow and transform itself to correspond to the growing needs of quantity and quality in education. Lack of resources is not the only difficulty. There are serious problems with the ways education is delivered, with the contents of courses, and in the ability of students to learn. The experiences of comprehensive educational reform, so far, have not been very inspiring. What is decided at the levels of ministries, technical assistance agencies, and secretaries of education seldom reach the classrooms, or are reinterpreted according to traditional practices.

The panelists and participants in the Santiago workshop proved to be acutely aware of these difficulties, and most of their recommendations were directed to bringing more resources to help to change this situation:

Financial resources: Most basic education will continue to be public. Governments should increase their education budgets, and use them better. There will be hard choices to make: between higher or fundamental education, between general and technical education, among regions and at-risk groups. Private resources should also be brought in. Students and families who can pay for their studies should do so, particularly for higher education. Companies should be stimulated to provide grants and "adopt" schools.

Community resources: schools should be linked as much as possible to their local communities, benefiting from voluntary work, involving parents and teachers in

the administration, and using their help to mobilize the families to bring their children to school and keep them there.

Technological resources - TV, Internet, computers, all these resources should be utilized whenever they can help to reduce costs, improve efficiency, and bring quality contents directly to the hands of schoolteachers and students.

Human resources: Bringing contents to students should not remain limited to traditional schoolteachers. Other professionals should be brought in, in person, as temporary teachers, or at a distance, through the use of communication technologies.

Information resources: It is necessary to know better what schools are doing, what students are learning, how much money there is, how well this money is being spent, and how the population is being served. For this, governments should develop good-quality education statistics, and systematic assessments of student achievement and institutional performance of schools, school districts, states and countries will have to be enhanced.

Intellectual resources: The field of education in Latin America and the Caribbean is teeming with ideas and suggestions for reform, and there are many good accounts of successful projects and pedagogical experiences. However, we do not know enough about the experiences of different countries, the long-term results of specific policies, or the real validity and possible usage of student assessments. We have just a general idea of how the education budgets are spent, and do not know much about private contributions to education. To learn about these and many other issues, we need good quality research and graduate students working in areas related to education. It is a matter for pedagogues and education specialists, but also for psychologists, economists, psychometricians, sociologists, political scientists and demographers. Modern, high quality educational research is not particularly expensive, but can play a very central role in the development of education in the region, by raising issues, questioning doubtful policies, and helping to point out the way.

Restricted and expanded visions of basic education	
Restricted Vision (Conventional)	Expanded Vision (Education for All)
Directed at children	Directed at children, youth and adults
Takes place in schools	Takes place inside and outside schools
Restricted to a period in a person's life	Lifelong and begins at birth
Equates with primary education or a pre-established level of education	Is not measured by the number of years of study or certificates attained, but by what is effectively learned
Responds to the teaching of specific subjects	Responds to the satisfaction of basic learning needs
Recognized only one type of knowledge that acquires in the school system.	Recognizes the validity of all types of knowledge, including traditional knowledge
Is uniform for all	Is diversified (basic learning needs are different in different groups and cultures, as are the means and modalities to meet such needs)
Is static ("change" takes the form of periodic school and curriculum reforms)	Is dynamic and changes with the passage of time (education reform is permanent)
Supply-driven (institution, school system and administration)	Demand-driven (students, family, social demands)
Focuses on teaching	Focuses on learning
Is the responsibility of the Education Ministry (education as a sector and a sectoral responsibility)	Involves all ministries and government bodies in charge of education (requires multisectorial policies)
Is the responsibility of the State	Is the responsibility of the State and the whole society, thus demanding consensus-building and co'ordination of actions

Source: J.L. Coraggio and R. M. Torres, *La educación según el Banco Mundial. Un análisis de sus propuestas y métodos*, [Education According to the World Bank. An Analysis of its Proposals and Methods], Buenos Aires, CEM-Miño & Dávila Editores, 1997

Underlying the concerns and proposals about the future of education are the Insert 1 different visions about the roles the schools are expected to play in the years to come. One vision is that "la escuela va a ser el último refugio social que queda para 'salvar a los niños' y darles algo de calor y afecto, especialmente a tantos que proceden de situaciones familiares y económicas deficitarias", as phrased by León Trahtemberg⁴⁰. Working *in loco parentis*, replacing the families in the provision not only of knowledge and information, but also of subsistence, values, social identity, role models and emotional support, such schools should provide the students with full-time education, and will depend on extremely qualified educational leaders, good installations, equipment and financial endowments to fulfill their tasks. They will depend, crucially, on a well-structured teaching profession, not only in terms of their technical competence, but specially on their commitment to the broad educational role that society would assign to them.

The opposite vision is of a school that is much more penetrated by outside influences and links. Education is a life-long and permanent activity, which takes place at home, at work, at play, and at school. The role of the school should be to help students to improve their links to the wider world, to obtain the information and knowledge they need, to reconfigure this information to their own use, and to develop their own individual competencies. The formal school as it is today would be just one among other possible educational environments, and sequential education along formal canons would tend to be replaced by certifications of different kinds. Such schools should not try to replace families, churches, governments, cultural institutions and the mass media in the provision of affect, values, social identity and material support to students. The burden on the teaching profession would be lighter, and the professional differentiation between teachers and other types of information providers and facilitators would become blurred.

⁴⁰ personal communication.

The future will lie somewhere between these two extremes. The expanded vision developed for the "Education for All" movement at the beginning of the 1990s is still an excellent formulation for what we can hope for the future, in contrast with the traditional schools that still prevail. Different students - of different ages, cultural backgrounds, and economic conditions - will require different types of schools and learning environments, and different societies, communities and educational institutions will strive for different models of what they believe a school should be. If the economy does not provide adequate jobs and reasonable income, if families and communities are unable to provide the young with ethical values and role models, if governments cannot harness the necessary resources, it is unlikely that the schools, by themselves, would be able to replace them. But schools will not disappear, the young will continue to spend most of his days within their walls, the teachers will continue to be the main link between students and the broader world, and whatever we can do to improve schools and enhance teacher competence and commitment their tasks will be worth the effort.

ANNEX 1 - MAIN BIBLIOGRAPHICAL REFERENCES FROM THE
EXPERT PANELISTS WHO PARTICIPATED IN THE DELPHI STUDY.

- Anaya, Amalia, (1993), *Reforma Educativa, Propuesta, Etare*.
- Anaya, Amalia (1996), *Educación, sindicatos y reforma: el caso boliviano*. Mimeo, junio
- Anaya, Amalia (2000), *La Reforma Educativa boliviana: de enunciado a política de Estado*, mimeo, junio.
- Avalos, Beatrice, (2000) "Policies for teacher education in developing countries, International Journal of Educational Research" (en prensa).
- Avalos, Beatrice, (1996) "Caminando hacia el siglo XXI: Docentes y Procesos Educativos en la Región Latinoamericana y del Caribe." *Proyecto Principal de Educación, UNESCO, Boletín 41* (Diciembre).
- Brandão O, Z. e outros, (1999), *O perfil do estudante brasileiro. Um estudo a partir dos dados do SAEB 97*. Brasília: INEP/MEC.
- Brandão, Z. e outros, (1999), *O perfil da escola brasileira. Um estudo a partir dos dados do SAEB 97*. Brasília: INEP/MEC.
- Brandão, Zaia, (1999), "Fluxos escolares e efeitos agregados pelas escolas", Em *Aberto* (71) Brasília: INEP/MEC.
- Braslavsky, C. (1999) *Rehaciendo escuelas: hacia un nuevo paradigma educativo en la educación latinoamericana*, Ed. Santillana, Buenos Aires.
- Braslavsky, C. (2000) "Transformation und Reform des Erziehungswesens". 1989-1999, in: Peter Birle/Sandra Carreras (Hersg.): *Argentinien nach zehn Jahren Menem. Bilanz und Perspektiven*, Frankfurt am Main: Verlag Vervuert
- Braslavsky, C. (2000) (comp) *La Educación secundaria en América Latina y Europa*, Ed. Santillana, Buenos Aires, 2000 (en prensa).
- Caballero P, Piedad (2000) "Avances en el proceso de descentralización en Colombia" *Revista Javeriana*. No 663. Santafé de Bogotá, Abril.
- Caballero P, Piedad (1999). "La autonomía escolar y el Proyecto Educativo Institucional" en *Reformas en educación y salud en América Latina y el Caribe*, Ed. Digital LOM ediciones. Santiago de Chile Octubre de 1999.
- Caballero P, Piedad (1999). "Realidades y tendencias sociales y educativas institucionales, nacionales e internacionales" en *Pedagogía y educación*. Consejo Nacional de Acreditación. Ed. Procesos editoriales ICFES. Santafé de Bogotá. Diciembre de 1999
- Candau, V, e Sacavino, S., (1999), "Educação em Direitos Humanos e Formação de Professores"; In: Candau, V. (org), *Magistério: construção cotidiana*, Rio: Vozes, (3ª ed.)
- Candau, V. M., (2000), "Interculturalidade e Educação escolar": In: Candau, V. (org), *Reinventar a Escola*, Rio: Vozes.
- Candau, Vera, (1999), "Reformas Educacionais hoje na América Latina"; In: Moreira, F. *Currículo: políticas e práticas*, Campinas: Papirus.
- Casanova, Ramón (1991). "El futuro de la educación en América Latina". En: Isabel Licha (coord.) *Imágenes del futuro social de América Latina*. Caracas: Cendes.
- Casanova, Ramón (1999). "Maestros y reforma". Em Ramón Casanova (ed). *La reforma educativa*. Caracas: Cendes.
- Casanova, Ramón, (2000). "Después de los Noventa". (Mimeo)
- Casassus, Juan (s.d.) *La Gestión: en busca del sujeto*. (Personal, UNESCO).
- Casassus, Juan (s.d.) *Tareas de la Educación*. Dapelusz Buenos Aires, (Tareas de la Educación). Autores Asociados São Paulo. (Personal).
- Castro, Cláudio de Moura Castro & Juan Carlos Navarro (2000) - "Will the Invisible Hand Fix Private Higher Education?" En: Altbach, Philip G. *Private Prometheus: Private Higher Education and Development in the 21st Century*. Greenwood Press. Westport, Connecticut.
- Castro, Maria Helena Guimarães de, *A Educação para o século XXI: o desafio da qualidade e da equidade*, Brasília, Instituto Nacional de Estudos e Pesquisas Educacionais, 1999.

- Castro, Maria Helena Guimarães de e Davanzo, Áurea Maria Queiroz (org), *Situação da educação básica no Brasil*, Brasília, Instituto Nacional de Estudos e Pesquisas Educacionais, 1999.
- Castro, Maria Helena Guimarães de, *Avaliação do sistema educacional brasileiro: tendências e perspectivas*, Brasília, Instituto Nacional de Estudos e Pesquisas Educacionais, 1998.
- Contreras, Manuel, (1999), "A la luz de la Reforma Educativa. El conflicto entre maestros y gobierno." *Tinkazos. Revista boliviana de ciencias sociales*. No. 4 (agosto), pp. 47-54.
- Contreras, Manuel, (1999), "Reformas y desafíos de la educación." Capítulo en Fernando Campero Prudencio (coord.) *Bolivia en el siglo XX. La formación de la Bolivia contemporánea*. La Paz, Harvard Club de Bolivia, pp. 483-507.
- Contreras, Manuel, (1998), "Formulación e implementación de la reforma educativa en Bolivia." En *Ciencia y cultura*. Revista de la Universidad Católica Boliviana. No. 3 (julio), pp. 55-76.
- Frers, Natalia (2000) "Education and income inequality in Brazil". (Tese de Mestrado em Economía) Universidad de Sussex.
- Frers, Natalia (2000). "Cuál es el rol de la educación en la distribución de la renta y el crecimiento?" (Presentación en las VII Jornadas de Economía de la Educación).
- Frigerio, Graciela, (1998), "Educar... ofrecer a las nuevas generaciones un futuro" *Ensayos y Experiencias* N° 22. Abril/Mayo.
- Frigerio, Graciela, (1999), "Zonas de Acción Prioritaria". *Cauces* Publicación de la secretaría de Educación del GCBA, Bs. As. N° 1.
- Frigerio, Graciela, (2000), *Políticas, instituciones y actores*. Frigerio, Poggi y Giannoni (comp.). Co-edición Centro de Estudios Multidisciplinarios/ Novedades Educativas. Segunda edición Junio.
- Gajardo, Marcela (1999), *La capacitación de jóvenes pobres en Chile*, MIDEPLAN 1999, parte de un estudio comparativo sobre Capacitación de Jóvenes en Situación de Pobreza y Riesgo de Exclusión en América Latina.
- Gajardo, Marcela (1999), *Reformas Educativas en América Latina. Balance de una Década*, Preal Documentos.
- Gajardo, Marcela, (1990), *La concientización en América Latina. Una revisión crítica*, Crefal, México.
- Gallart, Maria Antonia (coord), (2000), "*Formación, pobreza y exclusión*", CINTERFOR/OIT, Red Latinoamericana de Educación y Trabajo, Montevideo.
- Gallart, Maria Antonia y Jacibto, Claudia (coord.), (1998), *Por una segunda oportunidad. La formación para el trabajo de jóvenes vulnerables*. Montevideo: Red Latinoamericana de Educación y Trabajo-CINTERFOR.
- Gallart, Maria Antonia y Novik, Marta (coord.), (1997), *Competitividad, redes productivas y competencias laborales*, Montevideo: Red Latinoamericana de Educación y Trabajo-CINTERFOR.
- García-Huidobro, Juan Eduardo (2000): "Conflictos y alianzas en las reformas educativas. Siete tesis basadas en la Reforma Chilena". En: *Reformas educativas y política en América Latina*, CIDE-PREAL, (Libro por publicarse).
- García-Huidobro, Juan Eduardo (2000): "Educational Politics an Equality in Chile". En: REIMERS, Fernando (Ed.): *Unequal Schools, Unequal Chances. The Challenges to Equal Opportunity in the Americas*. Harvard University Press, Boston. (Libro por publicarse)
- García-Huidobro, Juan Eduardo (2000): "La educación chilena en 1999. Memorándum para el 2000" (Por publicarse en libro de FLACSO).
- George, June. (1995). "Health education challenges in a rural context: a case study". *Studies in Science Education*, 25, 239-262.
- George, June. (1999). "Worldview analysis of knowledge in a rural village: Implications for science education". *Science Education*. 83,77-95.

- González, Pablo (2000) "Una perspectiva económica de la situación de la educación superior en Chile", por aparecer en revista *Perspectivas*, Santiago, noviembre
- González, Pablo (1999) Capítulo sobre Chile en *Gasto Público en Servicios Sociales Básicos en América Latina y El Caribe. Análisis desde la perspectiva de la iniciativa 20/20*, editado por Enrique Ganuza, Arturo León y Paulo Sauma, publicado por PNUD-CEPAL-UNICEF, octubre 1999. Co-autores: Yael Baytelman, Kevin Cowan y José de Gregorio.
- González, Pablo (1999) "Financiamiento, Incentivos y Reforma Educacional," en J.E. García Huidobro, (ed.) *La Reforma Educacional Chilena*, Editorial Popular, Madrid, España
- Gutiérrez, Carlos (s.d.) "Educación para todos en el año 2000. Informe de Evaluación."
- Gutiérrez, Carlos (s.d.) "La Experiencia de la Iniciativa HIPC en un Contexto de Reducción de la Pobreza desde la Perspectiva del Sector Educativo".
- Henoa, Myrian (1999). *Políticas Públicas y Universidad*. IEPRI-Unacional, ASCUN, Fundación Ford, Edit. Corcas, Bogotá, Febrero 1999, Bogotá.
- Howe, Glenford D Howe (ed.) (2000) *Higher Education in the Caribbean: Past, Present and Future Directions*, Kingston, Jamaica: The University of the West Indies Press,
- Jacinto, C. (1999): *Enfoques y tendencias de los programas de educación dirigidos a niños y jóvenes desfavorecidos en América Latina*, IPE Programme de recherche et d'études: Stratégies d'éducation et de formation pour les groupes défavorisés. Paris, UNESCO/IIEP.
- Jacinto, C., Lasida, J., Berrutti, E. (1998): "Formación para el trabajo con jóvenes de sectores de pobreza en América Latina. ¿Qué desafíos y qué estrategias?" en Jacinto, C.; Gallart, M.A. Comp. (1998): *Por una segunda oportunidad. La formación para el trabajo de jóvenes vulnerables*, Montevideo, Cinterfor/OIT-RET, pp. 7-34.
- Jacinto, C. Y Konterllnik, I. COMP. (1996): *Adolescencia, pobreza, educación y trabajo*, Buenos Aires, Losada/UNICEF.
- Kueper, Wolfgang (1989) *Cooperation of universities and transfer of technology*, Frankfurt, 287 pp. (en Alemán)
- Kueper, Wolfgang (1993) - Pedagogía y Didáctica. La Pedagogía de la Educación Intercultural Bilingüe, Serie de 14 tomos, Compilacion y edicion, Quito.
- Kueper, Wolfgang (s/d), *Lengua, Cultura y Pedagogía en el Ecuador* (junto con T. Valiente) (en Aleman y Español).
- Leite, Elenice (1995). *El rescate de la calificación*. Cinterfor/OIT.
- Lievesley D., Sauvageot C., Mputu H., Bella N., Brossard M. (2000), *Education For All – Statistical document – World Education Forum* (April 2000, EFA Forum, UNESCO Institute for Statistics)
- Lobo, Thereza (1998) *Avaliação qualitativa e mecanismos de descentralização escolar (Paraná)*. Rio de Janeiro, CEPP.
- Lobo, Thereza (1998b). *Avaliação qualitativa II – Mecanismo de Gestão: da Centralização à Autonomia da Escola, Equipamentos de Informática e Bibliotecas Escolares*. Rio, CEPP.
- Lobo, Thereza (1999). *A visão dos atores*. Rio de Janeiro, CEPP/CEDAC.
- McGinn, Noel and Welsh, (1999), *Decentralization of Education: Why, what, when and how*. Paris: UNES/IIEP.
- McGinn, Noel, (1999), *Toward International cooperation in education for the integration of the Americas*. OAS.
- Mello, Guiomar Namó de, "Formação Inicial de Professores: Uma Revisão Radical," no prelo, *Revista do SEADE*, São Paulo.
- Mello, Guiomar Namó de, *Educação Cidadania e Competitiva, Desafios Educacionais do Terceiro Milênio*, Cortez Editores, SP.
- Mello, Guiomar Namó de, *Estrategias para satisfacción de las necesidades básicas de aprendizaje*, OREALC.

- Mignot, Ana Chrystina Venancio. "A Escola Pública e a Construção de um Espaço Alternativo de Educação." São Paulo: Cortez. *Educação e Sociedade*, (40), dezembro de 1991. pp.502-508.
- Mignot, Ana Chrystina Venancio. "Monumento à Educação: Escola Pública de Tempo Integral" Rio de Janeiro: UERJ. *Revista Rio de Janeiro* (3), 1994. pp. 52-60.
- Mignot, Ana Chrystina Venancio (1988). *CIEP: Centro Integrado de Educação Pública - alternativa para a qualidade do ensino ou nova investida do populismo na educação?* PUC/RJ, Departamento de Educação. Dissertação de Mestrado.
- Muñoz-Izquierdo, Carlos (1999) *Origen y Consecuencias de las Desigualdades Educativas*. Fondo de Cultura Económica, 3ª reimpressão, 1999.
- Muñoz-Izquierdo, Carlos (1996) - *Análisis y Propuestas para la Planeación Educativa*. Organización de los Estados Americanos.
- Muñoz-Izquierdo, Carlos (1988) "Efectos de la Escolaridad en la Fuerza de Trabajo", en: Latapí, Pablo (coord), *Un Siglo de Educación en México*. Fondo de Cultura Económica, 1998, Tomo I, pp. 175-199.
- Navarro, Juan Carlos & Aimee VERDISCO (2000) - *Teacher Training in Latin America: Innovations and Trends*. Inter-American Development Bank. Education Unit. SDS Technical Papers Series. Washington, DC.
- Navarro Juan Carlos, Martin Carnoy y Claudio de Moura Castro. (2000). "La reforma educativa en América Latina: Temas, componentes e instrumentos". En: Navarro, Juan Carlos, Katherine Taylor, Andrés Bernasconi and Lewis Tyler (Eds) (2000) - *Perspectivas Sobre: la Reforma Educativa*. Banco Interamericano de Desarrollo-Harvard Institute for International Development-United States Agency for International Development. Washington, DC.
- Oliveira, João Batista Araújo (2000), *A Pedagogia do Sucesso*, São Paulo: Saraiva (4ª. Edição)
- Reimers, Fernando (ed.) (2000) *Unequal Schools, Unequal Chances. The challenges to educational opportunity in the Americas*. Cambridge. Harvard University Press. (También publicado en español por Editorial La Muralla. Madrid.
- Reimers, Fernando and N. McGinn, (2000) - *Dialogo Informado. La utilización de la investigación para la conformación de Políticas educativas*. México. Centro de Estudios Educativos. (ceemexico@compuserve.com.mx) English version: McGinn, Noel and Reimers, (1997), *Informed Dialogue: Using research to shape education policy around the world*. Praeger.
- Reimers, Fernando (1999). *Educational Opportunities for Low-Income Families in Latin America*. Prospects. XXIX. N.4. December.
- Reimers, Fernando (2000). "Educación, Desigualdad y Opciones de Política en América Latina en el siglo XXI". *Revista de la Organización Iberoamericana de Educación*. (En prensa)
- Sackman, H, (1974) - *Delphi Assessment: Expert Opinion, Forecasting and Group Process*. The Rand Corporation, 1974.
- Sauvageot C., Brossard M., Bella N., Horri A. (1999), *Projections and estimations of primary and secondary net enrolment ratio in the developing countries* (April 1999 UNESCO Institute for Statistics, not yet published).
- Sauvageot C., Carrizo L., Brossard M., BA A., Loupis L. (2000), "Education For All" CD-Rom - 'A decade of education' " *World Education Forum* (April 2000, EFA Forum, UNESCO Institute for Statistics).
- Souza, Alberto Mello e (1999) "Um modelo de Educação para o século XXI. Notas sobre um seminário". Em Velloso, J.P.R. e Albuquerque, R. C. (coord). *Um modelo para a educação no século XXI*. Rio de Janeiro: José Olympio Editora, p.189-209.
- Souza, Alberto Mello e (1994). "El caso del Brasil". F. C.N.M. (org) *Descentralización y Planificación de la Educación: Experiencias Recientes en Países de América Latina* (Paris: UNESCO/IIPE)

- Talavera, Maria Luisa (1992). *Construcción y Circulación Social de Recursos Docentes en Primer Grado. Estudio Etnográfico*. Departamento de Investigaciones Educativas del Centro de Investigación y de Estudios Avanzados, Instituto Politecnico Nacional Mexico. Tesis DIE, No. 14. (Publicada también en Bolivia por el CEBIAE, 1994.)
- Talavera, Maria Luisa (1999) - *Otras voces otros maestros. Aproximación a los procesos de innovación y resistencia en tres escuelas del Programa de Reforma Educativa, ciudad de La Paz, 1997-1998*. Programa de Investigación Estratégica en Bolivia.
- Talavera, Maria Luisa, Urquiola, M., W. Jimenez, M. L. W. Hernany (2000). *Los maestros en Bolivia. Impacto, incentivos y desempeño*. Maestrías para el desarrollo, Universidad Católica Boliviana.
- Tedesco, Juan Carlos (1995). *El nuevo pacto educativo; Educación, competitividad y ciudadanía en la sociedad moderna*. Madrid, Alauda-Anaya, 190 págs.
- Tedesco, Juan Carlos, "Desafíos de las reformas educativas en América Latina" *Revista Propuesta Educativa*, FLACSO, Buenos Aires.
- Tenti Fantani, Emilio (2000); *Una escuela para los adolescentes*. Losada, Buenos Aires.
- Tenti Fanfani, Emilio (1999), "Teacher's Training, Work Conditions, and Salary in Argentina," in RANDALL L. and ANDERSON J.B. editors; *Schooling for Success. Preventing Repetition and Dropout in Latin American Primary Schools*. M. E. Sharpe, New York 1999. Pp. 265-276.
- Tenti Fantani, Emilio (1998) "El maestro en la jaula de hierro." In *La Argentina que viene. Análisis y propuestas para una sociedad en transición*, ISUANI A. y FILMUS D. Comps., Grupo Editorial Norma, Buenos Aires.
- Toro, José Bernardo, (1999), *Communication, social mobilization and changes in education. Workshop on education: Experiences from Japan, Asia and Latin America*, BID, Tokyo and Okinawa.
- Toro, José Bernardo, (1999), *El saber social y los contextos de aprendizaje*. Gimnasio Moderno I, Congreso de Pedagogía, Bogotá.
- Toro, José Bernardo, (1991), *La calidad de la educación universitaria y la tradición de escritura y lectura ICFES*, OEA, Bogotá.
- Torres, Rosa María (2000). "De agentes de la reforma a sujetos del cambio: La encrucijada docente en América Latina", en: *Perspectivas* (Vol. XXX, N° 2), N° 114. Ginebra: UNESCO-OIE.
- Torres, Rosa María. (2000). *Itinerarios por la educación latinoamericana: Cuaderno de viajes*. Buenos Aires-Barcelona-México: Paidós/CAB.
- Torres, Rosa María (2000). *Una década de "Educación para Todos": La tarea pendiente*. Montevideo: FUM-TEP; Madrid: Editorial Popular; Caracas: Editorial Laboratorio Educativo; Buenos Aires: IPE UNESCO (en español y en inglés); Porto Alegre, ARTMED Editora (en portugués.)
- Trahtemberg, León (1995) *La Educación en la Era de la Tecnología y el Conocimiento*, Editorial Apoyo, Lima, Perú, 1995.
- Trahtemberg, León (1999) *Mitos y Realidades de la Educación para el Tercer Milenio*. Editorial Bruño, Lima, Perú, 1999
- Trahtemberg, León (2000) *Educación Peruana: Un Salto a la Modernidad*, Editorial Bruño, Lima, Perú, 2000.
- Trujillo, Horacio (1997) "Estado y Sociedad en El Salvador 1950-1980". En K. Walter, (coordinador); *Gobernabilidad y Desarrollo Humano Sostenible en El Salvador*, Fundación Centroamericana para el Desarrollo Humano Sostenible, El Salvador.
- Trujillo, Horacio (2000) *La Gerencia Social Empresarial y la lucha en contra de la Pobreza*. Universidad Tecnológica de El Salvador.
- Trujillo, Horacio (2000) *Educación y Desarrollo: El Sistema de Educación Superior en El Salvador*. Ministerio de Educación. El Salvador.
- Vargas, Jaime E. (1999) "El rol de los incentivos docentes," en Patricio Cariola y Jaime Vargas, *Educación particular subvencionada: Un aporte a la modernización de la educación chilena*. Corporación Nacional de Colegios Particulares, marzo/

- Vargas, Jaime E. (1997) "Mercado, Competencia y Equidad en la Educación Subvencionada," *Persona y Sociedad*, volumen XI, n.2, agosto, Economía de la Educación en Chile, ILADES.
- Villanueva, Ricardo, (1999), "Niñez y Ciudadanía: Promesas y Perspectivas. Conclusiones del Seminario Taller", en: *Realidad & Utopía de Niños y Adolescentes* N° 4, Lima.
- Villanueva, Ricardo, (2000), *Conocimiento, Comunidades Virtuales y Ciudadanía: Itinerario para los Ciudadanos de la Sociedad Global*, junio (inédito).
- Villanueva, Ricardo, (1995), "La Educación en la Encrucijada del Desarrollo", en: *Revista Iberoamericana de Educación*; abril, OEI, Madrid.
- Zorrilla Alcalá, Juan Fidel (1998), "El enfoque etnográfico y las políticas educativas", en *Nuevos paradigmas; compromisos renovados. Experiencias de investigación cualitativa en educación*, Coordinadores, Beatriz Calvo Pontón, Gabriela Delgado Ballesteros, Mario Rueda Beltrán, Universidad Autónoma de Ciudad Juárez, México.
- Zorrilla Alcalá, Juan Fidel (1998), "Quality assessment in Mexican Higher Education", *Higher Education Management*, Vol. 10, No. 3, OCDE.
- Zorrilla Alcalá, Juan Fidel (1998), "The Politics of Innovation in a Mexican High School", in *Educational Qualitative Research in Latin America. The Struggle For a New Paradigm*, edited by Gary L. Anderson and Marta Montero-Sieburth, Garland Publishing, London New York.

INTRODUCTION

During August 23-25, 2000, education specialists from a number of countries in Latin America and the Caribbean (as well as from Europe and the United States), met at the invitation of the OREALC/UNESCO office in Santiago, Chile in order to address themselves to the question: *What are the possible future scenarios for education within the next 15 years in Latin America and the Caribbean?* This meeting was part of the preparatory work for the next meeting of education ministers of the region. As such, it contributed to identifying the policies to be implemented in the coming years. The Santiago seminar included working meetings and discussions of papers prepared by specialists for the event.

According to its program, the seminar included the following presenters: Ana Luiza Machado (UNESCO), Rosa Blanco (UNESCO), Humberto Gianinni (Universidade de Chile), Jorge Allende (Universidade do Chile), Simon Schwartzman (American Institutes for Research, Brazil) José Joaquin Brunner (Fundación Chile), Pedro Sainz (CEPAL), Álvaro Marchesi (Universidad Complutense de Madrid), Juan Carlos Tedesco (IPE, Buenos Aires), José Pablo Arellano (CEPAL), Marcela Gajardo (PREAL, Chile), Maria Antonia Gallart (Centro de Estudios de Población, Argentina), João Batista Araújo e Oliveira (JM Associados, Brazil), Graciela Frigerio (Centro de Estudios Multidisciplinarios, Argentina), Patrícia Arregui (GRADE, Peru), Leon Trahtemberg (education consultant, Peru), Alfredo Rojas (UNESCO), Henry Levin (Columbia University), Maria Amelia Palácios (Grupo TAREA, Peru), Luiz Enrique López (Proeb-Andes), Raquel Katzkowics (education consultant, Uruguay), Rosa Maria Torres (free-lance consultant, Argentina), Beatrice Ávalos (Ministry of Education, Chile), Ernesto Schiefelbein (Universidad Santo Tomás, Chile), José Rivero (UNESCO), Helena Bomeny (CPDOC – Fundação Getúlio Vargas/ Preal – Brazil). Besides this group of specialists, the following people were present representing ministries of education: Lucas Luchilo (Argentina), Amália Anaya (Vice-Minister of Primary Education, Bolivia), Ruy Leite Berger Filho (Brazil), Zaida Sánchez (Vice-Minister of Public Education, Costa Rica), Joël D. Jean-Pierre (Haiti), and Simon Clarke (Jamaica).

The meeting was opened by UNESCO/OREALC's Director, Ana Luiza Machado, followed by a detailed retrospective of 20 years of the Major Project in the Field of Education (MPFE) presented by UNESCO specialist Rosa Blanco. This served to establish a frame for discussions that would be developed during the seminar. To conclude the opening session, two inaugural presentations provided bases for discussions on two general dimensions considered by the UNESCO Regional Office to be reference points for the group of specialists. Humberto Gianinni, from the University of Chile, spoke on "The Ethics of Proximity", and Jorge Allende, also from the University of Chile, addressed himself to the "Implications of Recent Scientific Discoveries".

⁴¹ Prepared by Helena Bomeny, Fundação Getulio Vargas/PREAL, Rio de Janeiro.

We seek here to present the major themes and discussions of the meeting, using as a starting point the summary prepared by UNESCO, and going into some detail, based upon the contents of the working sessions. The presentation here does not seek to be exhaustive, given the large variety of subjects touched upon during discussions between specialists and government representatives. Our objective here is to select some of these points in order to offer a coherent over-all view of the subjects that most concerned the seminar participants. This report does not attempt to portray the multiplicity of viewpoints that emerge in a discussions of this kind. Education reforms bring within their contexts choices of political viewpoints, definitions of decision-making processes, and discrepancies between different and contrasting world-views sufficient enough to make any immediate attempt at consensus difficult. While there may be agreement on broad policy lines and philosophical approaches such as “education as a permanent process of humanization”; “education as perfecting living together democratically”; “education as the expression of ethical and moral values”, disagreement soon arises when it is a question of translating these principles into concrete decisions on procedures and public policies. This, undoubtedly, is both the strength and weakness of debates on education themes and problems.

This presentation seeks to reproduce 1) the assessment of UNESCO of the two decades of the Major Project in the Field of Education; 2) the general outline of the “new paradigm” for education reforms; and 3) the major themes that ran through the discussions.

THE MAJOR PROJECT IN THE FIELD OF EDUCATION: A SUMMING UP OF TWO DECADES

The talking points developed by UNESCO/OREALC and presented by Rosa Blanco agree with the diagnoses of international agencies regarding the state of education in the region. The rate for absolute illiteracy during the 1980s reached 20% of the population – or 45 million people. The highest rates were concentrated among women and the rural population. Illiteracy during the 1990s encompassed approximately 39 million people. Gender differences had been reduced, but the gap between urban and rural areas remained.

Universal access to basic education was one of the central objectives of the 1980s. Between 1980 and 1996, in spite of the economic crisis, the supply of education services increased. National strategies adopted during the two decades included large-scale literacy training campaigns promoted by ministries of education. Ministries also implemented professional training and basic and secondary education programs. On the non-government side, there was the so-called “popular education” movement. The increase in gross enrollment rates – 80% of the countries in the region required eight years or more of compulsory basic education – does not take into consideration grade repeaters or the quality of education offered. However, the effort during the 1980s to offer education to all did not resolve the problems of the inefficiency and the low quality of education systems. Double or triple shifts, the use of lay teachers, multi-grade classrooms served by one teacher, all factors associated with high drop-out and grade repetition rates, were the most common country responses in their attempts to offer education to the entire school-age population.

Thus, the effort of countries during the 1990s was to carry out reforms in order to improve the quality of education. There was a conceptual change in treating the problem of illiteracy, targeting what became known as “functional illiteracy”. This new way of identifying the large mass of illiterates in a sense justified increasing the development of more global approaches to education with the participation of new actors, the diversification of programs and a better interface between education and the workplace.

Reforms during the 1990s coincided with another policy agenda item: modernization of the State. Efforts were undertaken to establish long-range policies, national agreements, and 10 to 20-year national plans. The 1980s had been distinguished by policies that emphasized equality of opportunity of access to education systems. Governments actively expanded the coverage of access to education. During the 1990s, concerned with the quality of education they were offering, they placed more emphasis on national assessment systems. Indicators of quality were defined around quality, efficiency, and modernization of the management of education systems providing more time for learning.

The movement for curricular reform of the 1980s would, in the 1990s, encounter the first indications of the adequacy/inadequacy of such changes in terms of best use, of school performance, of the ability of education systems to improve education. Assessment systems were in their beginnings in the 1980s. In the 1990s, all countries in Latin America, and some in the Caribbean possessed assessment systems. The year 1994 witnessed the creation of the Latin American Laboratory for Assessment of the Quality of Education, coordinated by UNESCO/OREALC, and proof of the trend toward emphasizing the quality of education. Nevertheless, the dissemination and use of information produced by assessment systems are very limited.

Twenty-two countries in the region carried out very similar curricular reforms. Chief among the areas emphasized were methodological changes that made possible the participation of students and teachers in the dynamics of learning. New materials, new instruments, and new textbooks seemed to respond to the desire to make curricula better adapted to the dynamics of modern society.

Latin America and the Caribbean face the challenge, however, of confronting cultural diversity. Equality of gender, the recognition of the linguistic and cultural rights of indigenous populations, the integration of children and young people with special education needs, were all dimensions incorporated into reforms in many countries. The question of diversity joined with the defense of decentralization of education system management, with the inclusion of the principle of accountability for results. The question of school autonomy took on unprecedented importance in discussions about education in Latin America and the Caribbean. In many countries, however, decentralization of responsibilities was not accompanied by decentralization of resources or of payment mechanisms.

The question of teachers, major protagonists in the systems, remained a weak link in the chain of education reform. The greatest challenges for reforms of the 1980s

were to prepare teachers to implement curricular changes and to upgrade the skills of lay teachers. The results still leave much to be desired.

With some exceptions, teachers have not been incorporated as full participants in the definition of education policies and reforms. There is no single reason for this. In many countries, the way that ministries carried out reforms, centralization of policy-making, confrontations with teacher unions, lack of motivation, and the fact that teachers were often not convinced of the benefits and results obtained with involvement in improvement programs – all of this conspired against more effective commitment to policies implemented with reforms. This was a point that was much discussed during the seminar, and one that will receive more detailed attention during the presentation of the results of workshops and discussions.

The question of the financing, of public spending on education, was also treated in the UNESCO report. The percentage of public spending on education as a proportion of GDP remained between 1% and 8% during the two decades. Only four countries fulfilled the recommendation of investing 7% of GDP on education. Most resources for financing education come from different levels of government. Although data are not available for the entire region, for a sample of four countries one may note that poorer families spend a greater proportion of their incomes on education than do wealthier families. We do not have reliable information regarding the financing that other areas of society such as private companies, organizations, and churches provide for education. International agencies, and particularly international banks assumed an active role in financing reforms during the 1990s.

The UNESCO on the region as a whole report touched upon more specific points, besides listing a number of pedagogical themes that are, or that should be on the agenda for the definition of goals and frameworks used to define new investments in education. The discussions and texts presented in the seminar treated many of these themes, and may be grouped according to areas of concern that permeate discussions of education within the different countries of the region. The questions of management, social participation, new technologies, new demands of the workplace, the definition of the characteristics of policy for secondary education, of the benefits offered by assessment processes, of the difficulties and results that different assessment systems offer, besides the key chapter on teacher training were, with further development and care, the themes that stood out in the papers presented at the Santiago meeting.

A NEW PARADIGM OF EDUCATION REFORM?

The assessment of two the decades is not positive if we understand that the considerable government investment to increase coverage is not associated with improvements in the education offered. The return to democracy in many countries, with great emphasis on civil rights, on the policy of recognizing and valuing minorities, and with rhetoric about educating people to respect differences were transformed into strategic dimensions to be incorporated into education reforms. Educating to develop human capacities for living together and for being tolerant of those who are similar and those who are different; educating for the exercise of citizenship, was the ethical dimension that permeated even the most diverse

discussions. In this sense, the text of Humberto Gianinni was representative of the emphasis that was given to what would be a new paradigm for reforms on at least one point: that of preparing people to live together and of the benefit accruing to the actors themselves from cultivating this new attitude. In “The Ethics of Proximity” Gianinni defined the meaning of this guide to behavior:

“... an ‘ethic of proximity’ is thinking based upon the experience that one has of others - not simply as other human beings, but as fellow human beings. That is, experience of human beings who are near in both space and time -. exposed, therefore, to the effects of my initiatives, preferences, and interests; in sum, they are exposed to the effects of my freedom.”

How may we stimulate, preserve, and carry out this exercise in guided living? Schools, says the author, are “one of the strongest and most determinant modes of social convergence...” Schools understood as forums for reflection and interaction between generations, covering from primary schools to universities.

In sociological terms we could say that the moral sense of education must be on the agenda of formulators in the same way that it should guide actors involved in routines of education. Agreeing with the inclusion of ethical and moral dimensions as part of the educational process increases, rather than diminishes, the challenge to require routines, practices, and experiments that facilitate and refine the desire to civilize. This, after all, is what is involved in the great humanistic call for the construction of a new paradigm. This is to say that education has not and cannot relinquish its task of directing behavior, of informing conduct, and of being guided by values.

In this broad manner of thinking about education, and considering the complexity of communication and the multiplicity of actors, groups, social strata, and institutions that vie and emerge on the social scene, particularly in a predominantly urban context, at least two large subjects were the subjects of reflection. The first of these is the multi-cultural nature of the countries in the region. Policies of decentralization, democratization, extension of the right to education to minorities, improvement in the quality of education – all of these components that are on the agendas for reform in Latin America find their support and counterparts in challenges and gains when we consider concrete education policies such as those that bilingual programs seek to implement. The worse coverage and school performance rates are concentrated among the poorest sectors of the population, the minorities. Indigenous peoples are in this unprotected group. In some countries that total 60% of the population. In spite of this, they are treated as minorities.

The text of Luiz Enrique López and Wolfgang Küper, “Inter-cultural Bilingual Education in Latin America: Assessment and Prospects” brought this discussion to the seminar in Santiago. In his presentation, López spoke of the presence of indigenous peoples in Latin America from the point of view multi-ethnicity, pluri-culturalism, and multi-lingualism. Indigenous peoples in the region speak between 400 and 500 different Amerindian languages in an estimated population of 40 to 50 million people. This presence, that is found in different proportions in different countries – some with 60% of their population, others with much less – led to the establishment of bilingual education policies and proposals. These were first aimed at the assimilation of

indigenous populations. More recently, the effort has been to include these groups within current social and political nation-building of Latin American countries. This latter perspective is within the framework of the recognition of pluralism, of ethnic, social, cultural, and linguistic diversity inherent to the region.

Inter-cultural Bilingual Education has been identified as a product of thinking regarding exchange and respect for diversity in contacts between different cultures in the same society. It has been considered as a sign of progress in the policies of incorporation and democratization of relations in different countries. The involvement of native people in the management of education, as well as in the planning and administration of these programs contribute to the improvement of the quality of this pedagogical effort. Seventeen countries in the region have developed bi-lingual programs based on new and progressive legislation that recognizes the variety of linguistic and cultural rights of native peoples. Eleven Latin American countries have amended their constitutions in order to legally accept the diverse and heterogeneous character of native peoples. These countries now describe themselves as *plural* or *multi-ethnic*, in clear recognition of their native populations.

Enrique López presents an assessment of how the region has progressed in the sense of considering a multiplicity of cultures as a real and empirical premise from which to define policies and reform programs. Indigenous groups, together with the poorest sectors of the population, are the most impacted by low rates of schooling and by failure in school.

Another over-arching theme, although it did not emerge specifically as a theme for discussion during the meetings, were the concerns for a new paradigm and for contemplating reforms. This has to do with the increasing functions of schools and of teachers in urban societies, where rates of violence and increasing problems with drugs cut across families and schools, completely and abruptly disorganizing school routine, and generating expectations of teacher performance in tasks for which they are not prepared and do not have the skills to fulfill. If in the past, adverse social conditions obliged schools to perform social assistance roles that were outside their competence and not within their budgets, now, besides this function, schools and teachers are being forced to deal with questions of personal safety and behavior guidance in an environment of extremely unstable norms and social disorder.

A new paradigm for reform thus requires a new look at the relationships between teachers and students, schools and teachers, schools and families, and schools and students. If there was a consensus among the group of specialists meeting in Santiago, we can state that it was on the importance of teachers in this new environment, and of schools as locales for socialization that must be preserved. Two problems are immediately evident: The lack of preparation of teachers to carry out these functions, and the conventional attitude that predominates in school environments. Society has penetrated the school, with many of the negative effects of urbanization. But the conventional attitudes that predominate in school environments increase the gap between what society demands and the response that education is capable of bringing to these demands.

The notion that schools can preserve themselves from their external environment is historically, sociologically, philosophically, and pedagogically ingenuous. The new paradigm, therefore, is found in the response that reforms should give to that which remained as challenge from the 1990s: attention to learning and to the relation between school and the outside world. The learning process includes first and foremost the relation between student and teacher. New instruments, a new methodology, curricular flexibility, a new versatile and dynamic school environment; all of this demands human resources that are well-trained, culturally informed, and ethically-based. How may this be done with 75% of teachers known and not prepared for such a change?

Education has been profoundly affected by what Juan Carlos Tedesco diagnosed as a “loss of meaning”, a cultural and a mental state, a disenchantment that attacks the feelings of actors and affects programs and projects that depend upon the relation between values, beliefs and socialization and humanization proposals from which they are created and by which they are maintained. Perhaps strengthening the ethical dimension signals an alternative to such feelings, offering a means to recover feelings without which pedagogy cannot be sustained. Besides the broader meaning given to education, learning processes presuppose a relationship between the teacher, students, and content. Why not take advantage of the wealth of cultural diversity in the region to permit us to think about methodologies and creative resources for a more interesting pedagogy? The crisis of systems and, in a sense, the very limited response of reforms heretofore implemented reinforce the conviction that teachers are at the center of the dynamic of improvement of education, and that content should receive the attention of specialists, of schools, and of policies.

MAJOR THEMES

The UNESCO report on the region touched on other more specific points, as well as listing a number of themes that are, or that should be on the agenda in order to define goals and approaches that can guide new investments in education. Seminar comments and the texts presented treated many of these themes, and may be grouped according to areas of concern that cut across discussions of education in various countries within the region. The questions of new technologies, of new demands from the workplace, of the definition of what policy should be for secondary education, of the benefits offered by assessment processes, of difficulties and results that various assessment systems exhibit, besides the key subject of teacher training were the areas most treated in the Santiago meeting.

Two initial presentations guided much of the subsequent discussion. Pedro Sainz and José Joaquín Brunner worked with context variables to respond to the question of the relation between education and social development, and between education and social integration. Education and mobility are limited by low accumulation and low performance of the productive sector. Empirical data presented by Sainz destroy the widely-held belief in a positive correlation between more education and a better position in the economic structure and higher social mobility. The center of gravity is in the economic structure – the dynamic of the productive sector. When the capacity for economic expansion is reduced, we limit the intervention capacity and the influence of education on the ability of individuals to

attain the most valued positions. The extension of education to a greater number of people, the democratization of education, does not point to what would be the corresponding upwardly social mobility. The data show that low productivity sectors are those that most grow within a situation of unemployment.

Sainz' thesis was disturbing. If we cannot rely on the association between more education and a better place in the market, how can we promote the idea of the value of education? There is a gap between the pessimistic picture of economic, political, and social possibilities and the great social, ethical, and moral task of education in contemporary society.

Besides the more general theme of the relation between education and social mobility, among the set of presentations and discussions, some themes and areas stood out, either for their relevance and strategy attributed to them, or for the discussions they provoked, or at times due to their absence on education policy agendas. A first major theme, perhaps the most general one, may be associated to what Joaquín Brunner classified as the "new ideology", meaning by this the great consensus that has been created in intellectual and communication circles and among dominant sectors, that education is the basis of social development. Taking as a point of departure the major questions of the XXI century, sketched during the 1980s, governments, dominant groups, *intelligentsia*, international agencies (UNESCO, OECD, World Bank, and IDB) pointed to education as the key to national development – the major instrument for economic growth, and productivity increases, as well as providing for overcoming, or at least reducing the wide internal abyss of poverty as well as the external chasm separating developed and developing countries, considering the greater or lesser accumulation of science and technology. The press and electronic media have contributed to strengthen this consensus and, in fact, perhaps education has never in our history received so much media play as in the last decade.

Besides disseminating this consensus, another intellectual phenomenon has developed in the academic world. Brunner calls attention to what he classifies as the "grand effects thesis". This consists in global, generally negative interpretations regarding an extremely complex and contradictory process that has barely begun. From this perspective, globalization, with all of the lack of precision and definition, and nebulousness the term currently imparts, has been identified as being responsible for a wide variety of impacts on the education process. These include decisional aspects (the degree to which globalization processes change costs and benefits relative to various policy options that governments should adopt); institutional impacts (the way in which globalization forces and conditions determine the agenda of available options for policy-making); distribution impacts (the way globalization effects the arrangement of social forces); and, finally, structural impacts (effects on organizational standards and political, economic, and social behaviors of a society). Such a generalization on the impacts of globalization makes the phenomenon the immediate cause of a variety of frequently negative consequences in the field of education and education policy that in fact have very different origins.

In order to counteract such a broad generalization, Brunner suggests thinking about the repercussion or impact that globalization can have on the every day

workings of education in very well-defined fields. He notes five context dimensions in which the current changes taking place may be considered to be challenges for education in the XXI century: 1) Access to information; 2) body of knowledge; 3) availability to education of new information and communication technologies (NICT); 4) the labor market, and 5) worlds of life. Following the slow process of change in schools, Brunner notes the permanence and stability of the educational process when confronted with new instruments with the advent of digital media. The geometric growth of the body of knowledge, the possibility of exchange and accumulation of information by means of networks, the volume of information produced, the speed with which this knowledge is made available – all of these challenge schools. Who will synthesize these phenomena? How, can we select information from the millions of pages available? How may we organize curricula in order to take into account global knowledge that is in a permanent state of movement and expansion? It is now clear how quickly schools can adapt to these new circumstances, make the analog to digital transition, thus taking advantage of what NTIC offer. How many schools and families will complete this transition, and how many will succumb during the task, thus widening even more the gap, the “fracture” in society? These are concerns that remain in developing countries, and they are still unknown in developed countries.

Disregarding its emphasis on the present and a certain mechanistic quality of the “grand effects” thesis, and concentrating our attention on effects in the area of immediate or proximate contexts within which education develops, one cannot ignore the changes through which conventional education structures will have to pass.

“... education systems in Latin America are faced with deep and rapid changes of these contexts, at least in terms of access to information, management of knowledge, relationships with the labor market, employment of technologies, and socialization in the culture of the age”.

Such changes will force systems to adapt to a new scenario. The future of education in Latin America is shaped by the direction of these changes. This process is unavoidable because, *“the change in the context of technology within which education operates which, after remaining practically unaltered from the XV to the XX century, has now begun to change rapidly”*. (p.24). Following Castells', bet on the irreversibility of a new social morphology of our society: a society of networks.

“... open structures, with unfixed but changing limits, multiple connections, and communication channels between units or nodules, high frequency of contact between them, non-linear but intercrossing hierarchies, decentralization, flexibility, autonomy of base entities and/or programs, forms of coordination foreseen more by the market than by the State, more by means of accreditation and assessment mechanisms than by direct control” (p.25)

How can schools contribute to the worlds of life training task; that is, to shared cultural meanings that can sustain life within communities and social cohesion within a society with a “socialization deficit”, a general feeling of anomie and of threatened personal, social, and national identity? Have education systems lost their abilities to integrate? “When”, asks Brunner, “were they integrative?” Before, 80% of the school-

age population was outside the education system, a system that was historically excluding. Now, the challenge is actually greater because we are dealing with a system that is much more complex, with broader functions and a larger public. The process of automation is irreversible, and the growth of a society of networks is an inevitable result. The suggestion we are left with is to go with the possibility of schools carrying out functions for which they have not yet been especially prepared which will require them, therefore, to go through a process of radical adaptation. Networks are not only inevitable; they are a window toward confronting this challenge.

A counterpart to Brunner's conviction was offered by Leon Trahtemberg. His presentation was more directly aimed at the risks of a too rapid adhesion and exaggerated optimism in regard to the application of new technologies within the social contexts of our countries. The emphasis should not be placed on technology, but rather on people – especially on teachers who are, in truth the ones who will have to deal with the impact that the new technologies will produce in schools. How can teachers deal with new instruments? What to teach,, how much to teach, and how to teach are, in a sense, covered by the new technologies. But they will yield more or less depending upon the internal conditions of those who, after all, carry school life forward. There is no convincing evidence of a positive relation between the use of computers and improvements in learning. The fulfillment of the promises associated with on-line availability of all information, of interdisciplinarity, of flexible curricula, of erasing barriers between school, office, etc., will chiefly depend on teachers. Will the actors be prepared for so much flexibility of time and space within curricula? The only place in which the logic of the incorporation of new resources and methodologies does not work is in schools. Schools have been conservative and badly prepared for the dynamics of an information society. Assessing the concrete limits with which schools have to deal – a lack of qualified personnel, a lack of structure for the incorporation and handling of computer equipment, a lack of physical plant conditions for the creation of computerized environments – Trahtemberg concentrates his attention on the risks of a generalized policy of computerizing schools. With this he ends up reinforcing Brunner's observation in regard the still-prevailing conservatism of schools. If the perspectives of both seem to be in agreement in regard to the diagnosis of the difficulties involved in taking a leap in the direction of a society, of networks, Brunner and Trahtemberg are divided between optimism and disbelief in terms of policy orientations.

Brunner's optimism in regard to the possibilities opened up by a society of networks is founded on the conviction that the automatization process is an historical inevitability. It is not a case of actors deciding to brake or to accelerate this movement. The setting up of a society of networks is the most appropriate response for adapting education to the context with which it is surrounded. Networks will be able to accelerate adaptation processes, enrich the teaching profession with new information and suggestions of how to work, and open up knowledge so that it may go beyond the spatial limits of the school. On this point as well, Trahtemberg's reaction was one of mistrust: relating to the new instruments will demand from teachers 4 times more prior preparation time than that required for the handling of traditional resources.

“Once again this information technology is accepted almost blindly, which obliges educators to foresee its possibilities and limitations, to be aware of what it is capable of doing, of not doing, and of damaging. It is absolutely essential to know the answers to these questions before introducing the technology into schools, in order to be able to maintain an adequate balance between the values of the technology of knowledge and the human and spiritual values that every society needs in order to have meaning” (p.6).

In the case of teachers, Trahtemberg calls attention to the following possibility: how can we avoid the possibility of well-trained teachers wanting to leave the profession in search of better opportunities? The unanticipated effect of an investment in improved teacher training may be the loss of the best teachers.

In Trahtemberg’s opinion, Latin America is importing a program that is broader than countries can either demand or support. His position is that Latin America and the Caribbean should not risk what they have investing in technology. These will not have the hoped-for results if utilized within the conditions that apply to our countries. It was this reasoning that led Trahtemberg to recommend opting for less expensive and more user-friendly instruments such as videos and television. Indispensable socialization with electronic media can be carried out in an incremental manner with the creation of community centers within which computer systems can be democratized and widely utilized. A center with computers interconnected in a network, and with a group of professionals who can assist users (teachers and students) may be more efficient than the mass introduction of computers into schools. Such a center can offer learning of the new languages in more reliable and supportive conditions and the steady and appropriately paced dose of the benefits that this technology brings to teaching. The recommendation for incremental changes tie together the argument:

“It seems preferable, then, to begin technologies with lower cost per-student and which are closest to conventional forms of teaching (educational radio and television) before a new generation of teachers are trained able to make the best use of the new technologies. At the same time, small-scale pilot projects should be undertaken, but with qualified personnel and more sophisticated technologies in order to create a base of experience that when validated can produce demonstration and broadening effects on the others.” (p.19)

The contribution of Rosa Maria Torres may be added to the reflections of Trahtemberg and Brunner. The paradox of which Torres speaks lies in the asymmetry between the development of computer technology and the decrease of poverty. How can students and teachers deal with the innovations? If teacher training should not be limited to conventional areas, how can we foster the broadening of teacher training? What can we do with teachers within a framework characterized by confidence in technology and distrust of teachers? One of the key questions that Ms. Torres seeks to answer in her text is whether there is a place for teachers in the school of the future. After considering different positions, she concludes that the incorporation of new technologies will result not merely in a redefinition of the role of the teacher. It will lead to a “new culture of learning”. Taking this new culture as a starting point, we are given three scenarios: the present, characterized by the debility of the current model

and of current education reform in which teachers are generally defined as executors and subjects to be reformed rather than as key actors in reform. Another probable scenario would be the radicalization of current trends in regard to the teacher question: reduction of time available for study, trade union conflicts, the central role of the “salary question”, multi-function demands and other salary increase strategies, teacher flight to other professions, absenteeism, inefficacy of initial teacher training, diminished quality, lack of credibility of the sector in regard to proposed reforms, and the deepening of school “schizophrenia”. A third possible scenario involves many variables: transforming school education and substantially modifying the “teacher question” through dialogue with teachers and the creation of consensus regarding reform, redefinition of professional enhancement and of the school model, redefinition of teacher identity, incorporation of new technologies as allies of teachers and of school transformation, and comprehensive revision of parameters and modalities of education and learning of the profession.

TEACHERS AND LEARNING

The theme of initial teacher training was the one most returned to during the seminar. In all the discussions – of technology, new instruments, methodologies, grade repetition, and quality – the mention of the need for qualified human resources to confront the challenges always went back to the initial training of teachers. Every innovation depends on the capacity, flexibility, and preparation of those who will mediate between students and the new instruments. “The poor will have computers; the rich will have teachers” is a phrase that Trahtemberg used to express the central importance of the preparation of human resources in order to confront the technological revolution. Since the use of computers requires competent teachers to handle them, it is probable that the elite will have teachers and computers, and the poor will be left with equipment and unprepared teachers. Teachers are and shall be those who will make the difference in the interface between teaching and learning. Far from being excluded from the educational process by the introduction of new instruments, by the acceleration of automation, the visual appeal and the dynamic of new communication media, teachers were considered by the specialists as key players in the success or failure of this new interaction that education must consider. Teachers are the mediators between technology and students.

This consensual recognition did not diminish the complexity of the problem with which countries will have to deal, given that 75% of all teachers who will be working in the next 15 years are already in classrooms; on the contrary, this fact increases the complexity of the problem. The fact of the matter is that the next 15 years will not witness a turn over of teachers at the same velocity or extent as the introduction of new technological resources. These professionals do not receive guidance; nor were they trained in the new orientations or new demands placed on education systems. Not to mention the high rate of lay teachers that is still a problem in the region. How can this change be managed given this human resource picture? What can we do to supply training to the untrained without losing sight of the new demands being placed on education systems? Past experience is not encouraging:

“Four years after Jomtien, a study on quality of education, development, equity, and poverty in the region, sponsored by UNESCO’s Regional Office of

*Education in Latin America and the Caribbean concluded that, in spite of the existence of experiences in the region to renew pedagogical practices, there were **no significant changes in the quality of learning and in teacher training**. This statement reveals two indicators that have become increasingly relevant in debates on the assessment of quality of pedagogical processes in the region: learning results and teacher performance” (Maria Amelia Palacios, "La educación en América Latina: cambios en los procesos pedagógicos," p.4)*

The text of Beatrice Ávalos, entitled “Professional Development of Teachers...” addresses itself to the dilemmas of initial teacher training and of professional development of teachers, and considers some important indicators. First, the concentration of responsibility on teachers for everything that happens in the education system. Teachers are not merely government employees. *“Their tasks are more and more directed toward an increasingly diverse society that demands for all its young people a kind of education that will prepare them not only for participation as citizens, but to be productive as well. Teacher functions become more complex as education becomes available to all and as social demands placed upon the education system change”.* (p.4)

Providing initial training to teachers within this situation of an increasing complexity of expectations is a challenge that has not always been met. Research within Latin American countries shows that there is an immense gap between skills that training courses provide and what teachers must do in their classrooms ... *“ the 1990s began within a initial teacher training situation that many have described as marked by overloaded excessively fragmented curricula, and by a large gap between what was taught in training courses and what was required for teacher performance in schools”.*

The attempt to move initial teacher training from a formalistic base to a higher level of meaning has not been successful because, *“it was not built on the reality and cultural context of these teachers, and because it was focused on changing styles of teaching rather than on learning ...”*(p.9) UNICEF has noted cases of successful initial teacher training. Interestingly, these are not experiences carried out by education system training programs as such, led by “specialists”, but rather *“experiences that have occurred almost totally isolated from teacher training institutions, even when some trainers that teach in (these institutions) may have facilitated the creation of such experiences”* (p.11).

We find, therefore, a certain conflict between a culture aimed at results contrasted with a culture traditionally associated with ideas of vocation and mission directed at the development of children and young people. The culture of results justifies itself arguing flexibility of curricula, the adaptability of teaching to an information society, to new instruments, and to new conditions for persuading and motivating children. The fact is that public school teachers in the region are unable to respond to this challenge to teach open curricular programs that seek to develop complex cognitive skills. How may we move forward in professional training programs given this reality which any training program will have to face?

What does an instructor need to know in order to teach? This is not a common question among countries. Mexico, Brazil, and Chile began to develop a kind of manual, kinds of references points regarding what an instructor needs to know in order to be a teacher. This policy of creating standards for teacher training is a recent phenomenon.

Many countries in Latin America directed their reforms toward large-scale teacher training under the ambit of constructivism. This orientation was inserted into curricular reforms, also know as basic curricular designs (“basic curricular parameters” in Brazil, “common basic content” in Argentina, “fundamental objectives” and “minimum compulsory content” in Chile; and “basic curricular structure” in Peru). The adoption of constructivism as a methodological orientation and as a suggestion for teacher orientation in their classroom practices did not have the expected results.

“The constructivist approach, that sees learning as a processing of constructing of knowledge through prior knowledge and experience of participants and which sees teaching as an aid in this process of construction, made its presence felt in the pedagogical orientations of reforms and in teacher training processes. Nevertheless, such a focus requires prepared teachers in order to stimulate the reasoning abilities of their students – a task for which many of our teachers are not trained because neither in their school experience nor in their teacher training were they subject to a similar pedagogical practice”. (Maria Amelia Palácios, *op.cit.*, p.6)

Teachers feel insecure when adopting new practices. Even those who promote the new practices are insecure. The pressure to produce rapid results fosters the exhaustion of content in favor of form. Precarious salary conditions, low career prestige, the low quality of initial and in-service training, all of these conspire against the improvement of the teacher situation in the region. Rosa Maria Torres. argues that the “obsession for results” has led to a lack of attention to processes internal to learning.

Teachers are trained within the dogmatism of traditional schools and within an authoritarian culture that reduces curiosity, flexibility, critical thinking, all things that current new reform orientations wish to stimulate. An important point may be added to this set of questions: the teaching profession is not threatened by competition. Because teaching careers have low social and economic status, there are few incentives to improve, up-date, and to become acquainted with new methodologies and new instruments. Not to speak of the financial difficulties involved in carrying out this kind of program. The teaching career loses more professionals than the demand increases to enter the profession. The effort to improve professionally thus depends more on individual motivations to improve, grow professionally, etc.

Avalos suggests establishing a systemic teacher training policy. What has prevailed in our countries has been a fragmentation and lack of articulation between training activities. A first step has to do with a conceptual change – a change of nomenclature – *“instead of speaking of ‘training’ and of ‘improvement’ it would be better to speak of ‘professional development’ or ‘professional growth’.*” The term *training* has been conventionally associated with training to complete a task; the

broader idea of preparation, of development, thus suffers. The international literature has sought to change this meaning by changing the terminology. This change points toward a broader, more ample conception. What may at first glance appear to be pure abstraction is actually an attempt to clearly establish which forms or strategies for organizing activities are most appropriate for the objectives defined by means of this increase of meaning. The ability to design learning programs requires something more than training. It requires changes in concepts and attitudes.

We may express part of the current difficulties involved in changing teacher profiles, given the continuation of “formalist” teaching dominant in schools, and state still unresolved problems in the region by the following summary: a precarious and insufficient cultural base of teachers; lack of definition of the basic knowledge required by teachers; the need for permanence and predictability in the preparation of teachers; the understanding that the improvement of teaching is a process that occurs principally in the school; the lack of interface between education reforms and the professional development of teachers. Given this situation, Ávalos defines proposals based on three basic principles: the formulation and development of a systemic policy of teacher preparation, interchange and use of experiences carried out in other national contexts, and interface between reforms and teachers.

If, however, the theme of the preparation of teachers cut across all the presentations of the seminar with greater or lesser specificity, one cannot confirm that there appeared in the discussions a more mature and more concrete proposal designed to confront what is considered to be the greatest impediment to improving education in Latin America and the Caribbean. What happens in classrooms in this context of general change through which education systems are passing? Tedesco insisted on the need to define a policy based upon pedagogical methods. What policies of education innovation are possible? The answer lies in the strengthening of the science of education. Return to pedagogy. Take pedagogy on its own terms. Tedesco asks why Latin American not been sufficiently imaginative to create a pedagogy to deal with the question of poverty. The science of education guides how to function within a classroom, how to innovate the process of learning.

Discussions of education reform in Latin America have neglected the question of content. Moving beyond the rhetoric about the need for renovation, and moving on to more concrete commitments, we can observe the disputes, conflicts, and difficulties involved in opting for one or another kind of investment. Now that the rhetoric about increasing enrollment has been exhausted, it is necessary to deal with the quality of teaching being offered. What should be taught? What should the curriculum be? What should the content be; what knowledge or abilities should be considered? If teachers appear to be strategic in this chain, what do we say of schools?

Álvaro Marchesi argues that school systems can no longer be considered as stable and pre-programmed. The functions of schools have increased geometrically and significantly changed. Expectations regarding the roles of schools reflect the challenges of comprehensive training and of socialization, of schools as places of preparation for the world of work, and as centers of guidance for behavior in a world of desegregated families, of the growth and impact of violence on school routine. All of these reflect the extension of the problem of maintaining traditional school

organization schemes. Functions are expanded, but structures remain rigid, based on old, inflexible models. Is school performance the only, or indeed the most important point? Marchesi calls for a political solution: to seek political support as an option to strictly economic options. A political solution would involve the creation of a pact for education. It would commit authorities to the financing of impact studies. It would work to formulate a pact for education which would be the result of a negotiated agreement between different social sectors. Within a situation of scarce resources, much discussion, urgency and lack of clarity on priority items for serving the population, how may we arrive at such a pact? This question reinforces the point of fostering the social value of education more than the strict correlation with economic opportunities. It reinforces as well the ethical content that should guide the creation of such a pact. Inviting other actors depends more on the good will of those who are inside than that of those who are outside the education system. For this reason it is necessary to lend an ethical sense to discussions on education, mobilizing those within the system to adopt a more humanistic, morally acceptable point of view. If those who are involved with education do not take the initiative to demand meaning, fundamentalists and authoritarians will do so. And it was in this spirit of a search for the meaning of education that the group returned to pedagogy and to teachers. It still remains to define what policy it is possible to make regarding pedagogical methods and what education innovation policies may be enriched by the science of education.

CONCRETE POLICIES

If the theme of new technologies marked a dividing line among the specialists, the reform of secondary education mobilized the group in a more concrete direction. The classic distinction between general, humanistic, introductory education on the one side, and professional education aimed at the workplace is still a theme discussed by specialists. For besides the substance of curricula – more general or more technical; more humanistic or more professional – there lies a political assessment regarding that which is reserved for the poor and that which the elite can obtain from more sophisticated schools, complemented by family environments that are enriched by more information content.

What is to be expected from secondary education? Three specialists - Maria Antonia Gallart, João Batista Araújo e Oliveira, and Raquel Katzkowics -addressed themselves to this discussion. It is possible to summarize the contributions of Gallart and of João Batista Araújo by stating one point: ***the best education to prepare for work is a good basic education***. The commitment to quality on the part of basic education was the thrust of João Batista Oliveira's presentation, directly questioning the policy options that secondary education reform took in Brazil. The expansion of secondary education must be subordinated to the guarantee of a quality basic education. There is no empirical evidence that supports the need for expansion of the public system on the secondary level. In a situation of scarce resources, the unthinking expansion of secondary education would be irresponsible and contrary to that which should characterize the policy option of improving education. If the 1990s was the decade of quality in education, the quantitative expansion of secondary education would represent a break with the commitment to equity. Secondary education reform must move in the direction of a diversified model (competencies,

curricula, programs, types of schools). A single option, such as that taken by the reform in Brazil, is a distortion, and a confirmation of a elitist policy for education.

Mr. Oliveira's argument provoked much discussion. The reaction of Graciela Frigerio perhaps best summarizes the poles of dissent. Given the conditions of scarcity, to defend a general policy of extension of secondary education for all means, in the mid-term, to accentuate the privileges of the elite. This is the argument of João Batista Oliveira. To renounce the extension of general secondary education to the poor, while reducing opportunities for rapid training aimed toward job skills, shuts the poor off from the benefits of on-going education. The discussion translates into making the democratic expectation of the extension of the benefits of education compatible with the definition of concrete education reform policies.

Latin American tradition developed its own model of job training during the last 50 years.

“The ‘Latin American model’ of job training consisted of basic education within schools in the formal, universal system, although this occurred very late in many countries, followed by secondary education with a technical, work-oriented option for middle-level occupations and defined specialties (mechanical, electrical, construction, chemistry, etc.)”

This was the point of departure of Maria Antonio Gallart. There was an important development outside of the formal system of job training aimed at skilled manual tasks, principally in the industrial sector. This training was aimed basically at those who did not go into universities or for those who did not enter technical education. But a new focus has been given by the profound transformation in the work place that demanded greater adaptability to a variety of circumstances that require an ability to perform a variety of tasks. The skills required do not come just from a formal school curriculum. They are provided from the exercise of application of knowledge in critical circumstances. The knowledge necessary for problem-solving is not mechanically transmittable. *“it is a mixture of previous knowledge and of concrete experience that comes basically from working in the real world”*. (Gallart, p.9) The world of education and the world of work will have to communicate and establish agreements regarding basic kinds of training.

Concern for quality basic education that guarantees employable skills for all seems to have been a common point. And investment in technical schools which can provide specific kinds of training that respond to the realities of the labor market, opening up opportunities for qualified career paths are central objectives of work training using criteria of equity and competitiveness. At this point in considering the strengthening of basic education we may add the contributions of authorities who believe that the rush to specialization is no longer a solution for the new labor structure of societies with high levels of automation. The problem, in any case, is that of the responsibility of governments and of companies in this definition of a policy for professional and technical training. In this sense, it is important that there be coordination between more general training provided by public education and more specific training applicable to a number of productive contexts (professional training),

which, even when carried out by government, should be defined in close cooperation with the private sector.

Raquel Katzkowics commented upon the transitory status of secondary education. Her suggestion is to give new meaning to secondary education, eliminating its “transitory” status between basic education and future study at the college or university level by granting a specific identity to this level of study. For it is at this stage that a civic culture is stimulated and that citizens are prepared. Based upon the responses that the Ms. Katzkowics obtained from a questionnaire sent to countries in the region, in a joint study carried out with UNESCO/OREALC secondary education specialist Beatriz Macedo, one can state that practically all of the countries are involved in secondary education reform in an effort to establish policies for the sector. However, if it was possible to observe a reasonable consensus in regard to the priority of investing in basic education, the same cannot be said for the discussions on how to define and how to direct secondary education reform. There may be consensus of the need to diversify the sector; but translating this consensus into policy decisions is still a pending task.

A PACT FOR LEARNING

The Santiago meeting was an expression of asymmetry and of lack of consensus on the treatment of education questions. If we take as a basis the principle that education is built through values, discussions on education processes are so as well – the translation of orientations and of meanings that actors bring to the debate. To speak of consensus, however, would be to limit the nature of the education process itself. With agreement possible in regard to the broad lines of orientation – the humanization of the pedagogical process, learning in order to live with differences, giving value to the ethical dimension as a paradigm, improvement of the school environment as a space for learning to live together, and human resources as protagonists in change – the most concrete option around policies and decision-making processes exposes the fragility and the instability of consensus. This is not exactly a problem, but rather a reality check with which one has to operate. Opinions are divided and controversies arise if and when we depart from the generic level and begin to offer procedural suggestions.

The theme of new technologies is a case in point. Consensus regarding the recognition of its importance and of its irreversibility in contemporary society is broken the moment we begin to define steps toward its incorporation into pedagogical systems. Incorporation strategies reveal the conflicting visions of the actors that formulate them and of the projects that they defend.

Often, more general discussions make it difficult to confront more specific evaluations. The preparation of teachers is another example of this difficulty. One of the critical points that was not touched upon in the discussions is certainly that which involves pedagogy courses. The Brazilian experience is probably not an isolated one. Distant as they are from substantive content, pedagogy courses submerged themselves in such a degree of formalism that their growth in the country was symmetrically and progressively proportional to the decline in status of the teaching career in general. Designed to train future teachers in the techniques of how to teach without having

content to use, pedagogy courses succumb to abstraction, distance, and disinterest. Such courses proliferate almost in proportion to the decline in status of the teaching career itself, and have functioned as exit visas for teachers to move from classrooms toward school administrative, management, and counseling functions. If we take this fact and associate it with the difficulties mentioned in regard to better use of the constructivist orientation, a view that presupposes qualified teachers for best pedagogical results, perhaps it would be possible to design a strategic policy point to a better performance of the desired pedagogical paradigm. To not have content and not know what to teach perhaps is a greater source of tension than the socialization of new instruments. The return to content ceases to be a formal or philosophical pedagogical question, and becomes a conditioning factor for the process of improving education. Valuing teachers ceases to be an unspecific defense of the social value of the profession and becomes, instead, part of an agenda of concrete policies.

AGENDA OF THE SEMINAR ON PROSPECTS FOR EDUCATION
Santiago, august 23-25, 2000

OPENING

Ana Luiza Machado, UNESCO. Presentation of various studies being carried out by UNESCO, and of the prospective study in particular.
Rosa Blanco, UNESCO. Presentation of preliminary results of the assessment of 20 years of the Major Project in the Field of Education.

OPENING PRESENTATIONS

Humberto Giannini, Universidad de Chile. *The Ethics of Proximity.*
Jorge Allende, Universidad de Chile. *The Impact of the Progress of the Sciences on Society in the First Decades of the XXI Century. The Context for Education.*
Simon Schwartzman, American Institutes for Research/Brazil. *The Future of Education in Latin America and the Caribbean.*

ROUND TABLE 1 – CONTEXTS OF EDUCATION

José Joaquín Brunner, Fundación Chile. *Globalization and the Future of Education: Observations, Challenges, Strategies.*
Pedro Sainz G. (ECLAC) & Mario La Fuente R.: Economic Growth, Employment, and Income in Latin America: A Long-Range Perspective

ROUND TABLE 2 – EDUCATION POLICIES

Alvaro Marchesi, Universidad Complutense de Madrid. Changes in Society and Education in Latin America.
Juan Carlos Tedesco, IPE Buenos Aires. The New Pact for Education.
José Pablo Arellano, Consultant ECLAC: Financing Education.
Marcela Gajardo, PREAL, Chile: Education: A Subject for Everyone?

ROUND TABLE 3 – EDUCATION AND THE WORK PLACE

María Antonia Gallart, Centro de Estudios de Población, Argentina. Employment Training in Latin America: Past, Present, & Future.
João Batista Araujo e Oliveira, JM Associados, Brazil. Secondary Education in Latin America: Diversification & Equity. Portuguese version: “Who Wins and Who Loses with Secondary Education Policy in Brazil?”

ROUND TABLE 4 – THE MANAGEMENT OF EDUCATION SYSTEMS

Graciela Frigerio, Centro de Estudios Multidisciplinarios – CEM, Argentina. Do Education Reforms Reform Schools, or Do Schools Reform the Reforms?
Ana Luiza Machado, UNESCO: The Reorganization of Schools: the Role of the Actors.

Patricia Arregui, GRADE, Perú. Systems for the Determination and Assessment of Learning Achievement Goals as Instruments to Improve Quality, Equity, and Accountability in Education Processes in Latin America.

Leon Trahtemberg, Education Consultant, Peru. The Impact of New Technologies on School Teaching and Organization.

ROUND TABLE 4 – EDUCATION PROCESSES AND CONTENT

Henry M. Levin, Columbia University (USA): Pedagogical Changes for Educational Futures in Latin America and The Caribbean.

María Amelia Palacios, Grupo TAREA, Peru. Changes in Pedagogical Processes

Luis Enrique López, Proeib-Andes. The Question of Inter-Culturality and Latin American Education.

Raquel Katzkowicz, Education Consultant, Uruguay, & Beatriz Macedo: A Pending Subject: Secondary Education in Latin America and the Caribbean (slide presentation).

Cheila Valera Acosta, FLACSO/ Dominican Republic. The Prospects for Education in the Caribbean.

ROUND TABLE VI – TEACHERS

Rosa María Torres, Independent Consultant, Ecuador/Argentina. The Teaching Profession in the Computer Age and the Fight Against Poverty: Challenges for Education Policy.

Beatrice Ávalos, Ministerio de Educación de Chile. Professional Development of Teachers: Looking Toward the Future.

Ernesto Schiefelbein, Universidad Santo Tomás, Chile, & R. Zuñiga – The Relations of Higher and Secondary Education: Transformation of University Teaching, Research, and Extension.