EDUCATIONAL PLANNING

Vol. 7, No. 4

The Journal of The International Society for Educational Planning

PROMOTING THE STUDY AND PRACTICE OF EDUCATIONAL PLANNING

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Reprints: Articles and reviews are available from the publisher at a cost of $7.50 (U.S.) plus postage for orders of less than 25 copies. For sets of 25 copies, the cost is $30 (U.S.).

Translations: *Educational Planning* will attempt to provide readers with major language translations of journal articles. Interested members should contact the editor regarding availability, costs, lead time, etc.

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Educational Planning is the refereed journal of the International Society for Educational Planning. *Educational Planning* is published quarterly by the Society, which maintains editorial, production, and correspondence offices at The University of Alabama, P. O. Box 870302, 312 Wilson Hall, Tuscaloosa, AL 35487. The Journal is assigned ISSN 0315-9388 by the International Serials Data System/Canada. All material in the Journal is the property of the International Society for Educational Planning and is copyrighted. No part of this publication may be reproduced or transmitted in any form by any means electronic or mechanical, including photocopy, recording or any information storage or retrieval system without written permission from the publisher. Permission to use material generally will be made available by the editor to students and educational institutions upon request. For submission information, please see last page.

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ISEP ANNOUNCES:

The Outstanding Dissertation in Educational Planning Award

At its annual meeting, to be held this October in Atlanta, ISEP will recognize one or more outstanding doctoral dissertations in the field of educational planning. Anyone working with a student who may be worthy of such distinction should write to Ron Lindahl at the following address for the appropriate forms and further information.:

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THE 1990 ISEP CONFERENCE

EDUCATIONAL PLANNING FOR THE 21ST CENTURY:
Strategy, Technology, and the Future

will be held October 13th through 16th (Saturday - Tuesday)
in Atlanta, Georgia
at the Omni International Hotel.

Registration: October 13th, 4 p.m. - 9 p.m.
Reception: October 13th, 7 p.m. - 9 p.m.

Business Meeting: October 16th, 8:30 a.m.
Conference ends at noon, October 16th.

For more information, see page 38 of this issue.

ATLANTA BOUND?

Here are some places of interest you may want to consider visiting:

Fox Theater—1929 movie palace with 4,000-seat theater and three grand ballrooms.

Georgia World Congress Center—Featuring 640,0000 square feet of exhibition space, 70 meeting rooms, and a 2,000-seat auditorium.

Memorial Arts Center—Home of the Atlanta Symphony, High Museum of Art, Children's Theater, and the Atlanta College of Art.

Omni Coliseum—A 17,000-seat sports arena, site of professional basketball and live entertainment.

Six Flags Over Georgia—12 miles west of downtown Atlanta. A 331-acre family entertainment center with more than 100 rides, shows, and attractions.

This information courtesy of the Omni International, Atlanta, Georgia.

MINUTES OF A FORUM ON THE PREPARATION OF PLANNERS

Recorded by Ronald A. Lindahl

At the 1989 Annual Conference of the International Society for Educational Planning (ISEP), a group of school district practitioners, state and regional agency representatives, and university professors joined in a round table forum to share their views on the preparation of educational planners. The purpose of this article is to summarize some of the key points and issues of that discussion. Consonant with the nature of the Society, no attempt was made to achieve consensus within the group; rather, participants were encouraged to present a variety of opinions and to examine the topic from the full range of experiences and perspectives inherent in the field of educational planning. The intent of the Society is to continue these discussions on an ongoing basis, thereby providing essential input for the design of educational programs which are intended to help prepare educational planners.

The topic was introduced by asking two district-level planners to reflect upon the strengths and weaknesses of their own educational preparation, vis-a-vis their current professional responsibilities. Sandra Anderson, of the Washington D.C. Public Schools, noted that the coursework which best prepared her for her planning role was not primarily from the educational administration courses she took, but rather from the business administration, economics, organizational development, and quali-quantitative analysis courses. She found her preparation to be strongest in the areas of business management, organizational development, human resource planning, and case study research, but somewhat less complete in terms of supervision and leadership skills, theories and models of planning, evaluation of instruction, staff development, organizational structures, community relations, environmental scanning, and in the organization and facilitation of meetings. Joseph Skok suggested that public administration courses might assist in addressing some of these need areas, and recommended that competency-based programs might be more effective than traditional graduate programs in ensuring that these skills were developed. Ken Ducote, of the New Orleans Public Schools, responded from his experience, stating that his program of studies included only limited courses in educational administration with the remainder being in such areas as organizational management and theory, internal and external scanning, quali-quantitative policy analysis, urban planning, and business management. He considered that this broad base of preparation was of more utility to him in his role as an educational planner than would have been the more narrow focus of most programs with a greater emphasis in courses taught in the College of Education. However he listed several specific areas in which he would have appreciated even greater preparation, including: (1) "What is the real change process?" (including providing for hands-on experience); (2) "How do you detect and deal with hidden agendas which may affect the establishment of district goals and objectives?" (3) "How should planners deal with the media on controversial issues?" (4) "How can planners most effectively obtain and utilize public input?" (5) "How can planners work more effectively within the greater organizational structure?" and (6) "What are the ethics of educational planning?" In summarizing these concerns, Ted Humphreys reflected that what would appear to be necessary would be provisions for graduate students to participate actively in the university governance process, thereby providing a forum for linking practical experience with theoretical models being studied. Ken and Sandra recommended that a case study approach be utilized in many courses to provide further opportunities for students to link theory and practice. Denise Spritz

commented that most of her coursework at Vanderbilt University had incorporated the case study approach, and that the preparation she had received via this method in "power and politics" was especially beneficial to her current efforts in educational planning.

Allan Guy, reflecting on the educational planning preparation he had received in Canada, praised the courses taken in quantitative methods, economics, and demography. He noted that he was incorporating many of these areas into the courses he was teaching in educational planning; however, he cautioned that many of his students would not be in positions which called for the application of this knowledge and these skills for as many as ten years after completing their studies. This turned the discussion to an examination of the issue of "Who are the educational planners, and from what professional backgrounds are they selected?" Glenn Earthman noted that most educational planners did not originally intend to work in this field, but rather migrated to it. For this reason, many of them did not pursue graduate study programs which would prepare them specifically for the responsibilities they would face as planners. George Crawford shared his experience on the inherent tension between what academicians and practitioners believe should be studied. Ben Graves extended this thought, questioning whether the textbooks available truly relate to the realities of educational planning today.

In considering various models for the preparation of educational planners, Ken Tanner made a strong differentiation between training and education, noting that graduate programs would need to count on full-time students if they were to provide meaningful education, including substantial field experience. However he noted that the constant need for retraining and updating of skills and knowledge could best be done through professional organizations, e.g., the Society. This led Glenn Earthman to recommend that the Society consider offering pre-conference workshops on specific aspects of educational planning. Joseph Skok suggested that the Society consider developing guidelines for the preparation of educational planners, both for educational institutions and for training needs. He emphasized the need for anyone in advanced coursework to be engaged in educational planning within a suitable educational institution, suggesting that Nova University's program model for public administration might offer some guidelines for the development of similar programs in educational planning. In that program, students are engaged in the process in their regular employment, read classic literature on the field of public administration, are mentored by competent practitioners, and write a scholarly paper on a topic of job-related importance. Furthermore, he recommended that the doctorate should only be awarded after the student has proven competence in an educational planning role. Herb Sheathelm echoed the need for practitioner involvement, emphasizing the practitioner's role in helping to design programs for the preparation and ongoing development of educational planners. George Crawford seconded the need for programs to examine the "critical" theoretical issues, but advised that students may need to individualize their programs to benefit from their professional experiences and from courses in other disciplines rather than following a single prescribed program of study.

The next issue addressed was that of whether or not educational planning is best defined as a specific area of expertise. Ken Tanner noted that no specific certification exists for educational planning, although Robert Beach mentioned a related certification currently available in project management. Sandra Anderson concluded that planning is more a skill than a profession, much like leadership and administration. Glenn Earthman noted that since only approximately 750 school districts in the United States have enrollments exceeding 10,000 students, there are few specialists identified purely as "planners" by profession. Maridyth McBee reflected that since her job as a planner changes so drastically every year, no single

preparation program could be appropriate and sufficient in itself.

Ken Ducote noted that "educational planner" is often not a terminal step in the individual's career ladder, but is rather a step along the way to higher administrative positions; he reflected on the many Society members who have left roles which were primarily concerned with planning and moved into roles of greater administrative responsibility within their districts and in state and regional departments of education. Herb Sheathelm summarized this well, stating that "people do not move through planning, but rather move up with it, recognizing that the planning skills are equally important to upper-level administrators as they are to the actual planner." He posited that planning is a function of all administrators and leaders, not confined to specified, designated "planners." Ted Humphreys reflected on his experience with the Canadian educational system, acknowledging that he had been promoted largely because of the planning skills, and especially because of the planning mind-set, which he had developed. Allan Guy concluded that planning is neither a "bag of skills," nor a "process," but rather a set of processes and the ability to select the process that best suits the organization's specific needs. Thus, in Ted Humphreys' words, "people with envisioning skills who are oriented to a planning mode" make excellent chief executive officers. Joseph Skok, seconded by Glenn Earthman, concluded that a background in educational planning is tantamount to a "union card" for more global administrative positions in educational settings.

This year's discussion led to the formulation of several new questions which might be addressed in future discussions. Among these are: (1) "What should the role of university personnel be in state and school district planning?" (2) "What venues of continual learning are most appropriate and feasible for educational planners?" (3) "Is planning a skill? A mind-set? What else?" and (4) "How can universities and practitioners best work together to assist in the preparation and ongoing development of educational planners?"

EDUCATIONAL DECENTRALIZATION IN LATIN AMERICA AND THE EMERGING PLANNING PARADIGM

Carlos M. Alvarez

In his recent works, the author has described some of the positions that have arisen lately on educational planning in Latin America and he has stated his ideas about the implications, both theoretical and methodological, derived from the new foci (Alvarez 1984; 1987; 1988). In these works it has been argued that the new positions are beginning to profile a new vision of educational planning, emerging as a result of a radical or paradigmatic transformation (Kuhn, 1970) in the ways of perceiving planning.

The recent perspectives, in their majority, have arisen as a critical reaction against what has been identified as normative planning, i.e. that which is heavily influenced by the planning methodology used in economics. According to Carlos Matus (1972), the economic planning models have been characterized by planning actions and projects based on the need to reach preestablished objectives. This type of planning in the educational field has been described by Noel McGinn (1980) as being deterministic, closed and mechanistic. According to Norberto Fernández Lamarra (1983) this type of technocratic planning has been nicknamed "plan libro" (book plan) in Latin America as the production of a document-plan becomes the primordial objective of the planning.

McGinn (1980) claims that in normative planning, actions are programmed based upon existing prognoses of what may possibly take place. Escotet (1982) criticizes this kind of planning, calling it the "anticlimax" of "realistic" planning (equivalent to the normative focus) because it is mainly oriented towards identifying objectives instead of creating them and maintaining a reality instead of changing it. To summarize, educational planning based on a normative perspective has been criticized as representing a technocratic exercise, fragmented and linear in its prediction and programming of resources, directed towards obtaining foreseeable developmental goals. One of the principal results associated with normative planning has been its isolation from the political context. From such a planning perspective, the political variants are treated as accidental, that is, the political viability of the plan is a predetermined factor and not something that is built up.

In this paper the author sets forth how the new planning paradigm can contribute to a wider, more dynamic focus, which can have repercussions on the design and implementation of educational plans. The new planning paradigm can offer the basis for a political analysis of the context and better flexibility which, in turn, allows a more realistic planning within the dynamic framework of decentralization.

Characteristics of the New Paradigm

In earlier works (Alvarez, 1984; 1987; 1988) some of the premises on which recent foci on planning are based have been identified. These premises shape, according to the author, a new paradigm or way of thinking about planning. The first of these premises is related to the need for the planner to adopt a systemic perspective. This systemic perspective, heavily influenced by post-cybernetic developments in science, sees education as a subsystem made up

of other mutually dependent subsystems that form the global system. Various experts in the Latin American educational planning field have presented perspectives that, either implicitly or explicitly, can be placed within the systemic focus (Barcaglioni, 1983; Escotet, 1982; Garzón, 1983; Irurzun, 1983; McGinn & Porter, 1983; Olivares, 1983; and others). From the positions espoused by these authors it may be deduced that any change that takes place in one or various of the subsystems of the national global system would affect the rest of the subsystems. At the same time, a profound change in the educational subsystem may require a change in its relationship with other subsystems such as economics and politics. Using the systemic focus, education stops seeing itself as an isolated system, closed off from its environment, and begins to see itself as a subsystem that maintains a high level of interdependence with the forces that make up its environment.

The second premise characterizing the new paradigm is the need to accent those teleologic elements that serve as an incentive or creative impulse to the process of planning. Authors such as Miguel A. Escotet have emphasized the teleologic component of planning by proposing the need for "utopian planning" as an alternative to the modern plans "so lacking in creative imagination" that they are reduced to a mere "programming technique" (Escotet, 1983). By emphasizing the teleologic dimension dynamism is injected into the planning because the final goal is being defined through a whole process of situational decision-making. The teleologic element of a plan serves as a guide for the situational decisions, because this also allows the evaluation of whether or not these decisions are still framed within the broad limits of a trajectory directed towards the established goal. Other authors have also emphasized the teleologic component of planning (Garzón, 1983; Olivares, 1983; Riguelme, 1983).

A third characteristic associated with the new outlook on educational planning is that of looking at it as a dialectic process. By being seen as a dialectic process, planning begins to be perceived as a set of interactions between contradictory forces, instead of harmonious actions based on consensual relationships. From this point of view it may be derived that it is imperative that the strategies used in the development and implementation of the plans be neither linear nor asituational but rather, that they be primarily characterized by their conflictive nature and by actions stemming from contradictions established situationally between the planner and their context. Several of the expositions made in relation to planning (Arrién, 1983; Escotet, 1983; McGinn & Porter, 1984) share a vision of the changes that fall within this third category. This third characterization implies that planning will be visualized in terms of strategies, given that this type of formulation is more consistent with a process vision. A great number of the activities related to educational planning (such as diagnostics, goal-setting, implementation and evaluation) should be framed within a situational context. This will make them more in accord with the dynamic nature of the global and educational realities.

The fourth premise associated with the new Latin American educational planning paradigm is to be found in the participatory emphasis that for more than a decade has been espoused by such authors as Aguerrondo (1986); Arrién (1983); Fernández Lamarra (1983); McGinn & Porter (1983), and others, as well as from recommendations stemming from regional conferences (Ayzanoa, 1984). There seems to be a regional consensus that one of the problems associated with normative planning has been the lack of participation in the developmental processes and implementation of the educational plans by the interested sectors of the community. The experience accumulated in the region seems to indicate that the educational plans frequently have not obtained the hoped for results due to the resistance and indifference of many of the affected sectors.

The synthesis of the premises or characteristics, briefly described in this section, is what this author has named the new planning paradigm in Latin America. The vision that has emerged from the region lately has been characterized as a new paradigm because this vision seems to reflect a profound transformation in the ways of thinking about planning. Among other things, it shifts the basis from a linear or cumulative logic to another more holistic and dynamic one, based on a dialectic concept of the social reality. This vision means that the planner must keep in mind the interdependence between the plan and the forces of power that stem from the political context. It is from this viewpoint that the author intends to analyze the subject of educational decentralization in the region.

Educational Decentralization in Latin America

One of the problems that has top priority on the developmental agenda in developing countries is that of decentralization. In a recent study, Rondinelli, Nellis & Cheema (1984) offer a review of experiences with decentralization processes carried out in many countries of various regions of the world. According to these authors, decentralization is defined in terms of the transference of responsibilities in planning, management and resource management from the central government to agencies of varied levels of autonomy. They may be dependencies of a ministry, lower level subordinate units, semi-autonomous agencies or corporations, or non-governmental organizations from the private sector or of a volunteer nature. The degree of transference of responsibilities can vary widely, while at the same time different methods may be implemented simultaneously within the same country. The review written by the aforementioned authors shows us such a variety of experiences that they opted to classify them, using such categories as deconcentration, delegation, devolution and privatization, assigning to each of these the degree of transference suggested above.

Education, which, since about the middle of the century, has been considered one of the national sectors most intimately related to economic development, has not escaped the experimentation with types of decentralization (Rondinelli, et al., 1984; McGinn & Street, 1986a; 1986b). One of the regions of the world that, since the 70s, has experimented greatly with decentralization processes on different national levels is Latin America (McGinn 1986a; 1986b).

Up until about the 70s Latin American educational systems based their actions on the premise that their efforts had to be centralized in order to build and consolidate national unity. The centralization of the educational structures and functions was perceived as an element vital to the creation of a national awareness among the relatively young Latin American republics. This characteristic or centralizing tendency does not, of course, deny the reality, as Noel McGinn and Susan Street (1986a; 1986b) remind us when they argue that even in the decades that precede regional interest in decentralization many of the decentralization methods can be found throughout the different countries. Neither should we forget that it was in Latin America that, at the beginning of the century in Cordoba, Argentina, the movement for the autonomy of the universities began. This would have a very important sociopolitical, decentralizing impact on the whole region.

In spite of the realities discussed before, it may be said that in Latin America, until recently, the tendency to centralize, both in planning and structuring the educational system, has dominated. Taking the area of educational planning as an example, it may be seen that since the movement towards the integration of educational plans with global planning began and when

the first national planning offices were formed, these were inserted in the central structures of the Ministries of Public Education. That is to say, as Lorenzo Guadamuz (1987) points out, the efforts in the planning field were articulated from the start with what was principally a "verticalist" focus or rather, centralized.

At the same time planning was beginning to be practiced in a centralized way, the need to increase community participation in goal-setting and educational plan designs was beginning to be discussed in regional congresses sponsored by international organizations such as UNESCO and the OAS. Educational planning, with its emphasis on statistical models, began, early on, to generate data that suggested the failure of the system to incorporate the traditionally marginated rural and native populations into the national educational processes. It is because of this confrontation with the statistics that cast doubt upon the effectiveness of the educational sector as a cohesive factor that the importance of participation in the educational processes and even in the planning processes began to be emphasized. It was in the last years of the 60s, when progressive militarists in Peru, led by General Velasco Alvarado, seized power, that one of the most important national experiments took place: a complete restructurization of the educational field seeking to decentralize the system. The attempts to decentralize education in Peru took place within a framework of radical changes to the social structures which responded to a well-drawn political agenda by the military government. Noel McGinn (1986a; 1986b) discusses details of said experience with educational decentralization which ended when the Velasco Alvarado regime was overthrown and a conservative military junta ruled instead. During the 70s the region saw the expansion of experiments in regionalization and implementation of decentralization models in education. The majority of these could be classified as experiences in administrative deconcentration. However, it was in July of 1980 that many of these efforts attained official status. In Bogota, Colombia, at the XI Reunion of the Interamerican Council on Education, Science and Culture, the Ministers and Delegation Heads from the participating member countries decided to adopt two resolutions historically known as the "Bogota Consensus on Educational Regionalization." Through the resolutions of the "Bogota Consensus," efforts to link regional educational planning with the plans for regional development were promoted and a broad and permanent interchange of information and coordination was recommended in hopes of significantly strengthening regional educational activities that had been in the process of implementation by the member states. Through the objectives associated with educational regionalization, the region's states expressed the need to support formulas for administrative decentralization. Keeping in mind the geographic, cultural, and socioeconomic characteristics of the regions, they proposed a more equitable distribution of the resources needed for the integral development of the countries. The resolutions of the "Bogota Consensus" tried to implement a strategy that would increase the participation of local and regional communities in the educational processes (the majority of which were generated at the national level).

Since the beginning of the 80s we therefore find numerous attempts at educational regionalization and, throughout the years, the growth of the number of large scale experiments in different forms of decentralization within such varied socioeconomic and political contexts as those found in Argentina, Chile, Mexico, Nicaragua and others. All these experiences have been defined as decentralizing, each one emphasizing different mechanisms in accordance with the government's political philosophy, i.e., from popular consulting methods to ways of making the educational services private. To this list of macro-scale experiments a significant number of microplanning projects could be added, carried out in Central American countries such as

Costa Rica and Guatemala. These cases are mentioned by Lorenzo Guadamuz in his paper on the state of educational planning in said Latin American region (Guadamuz, 1987).

The experiences identified before, which are not intended to be a thorough description of the experiences that in one way or another are identified as coming under the heading of decentralization, show a significant degree of variation. The contexts in which they occur are extremely diverse, and the political ends which, implicitly or explicitly, are sought, or from which they result, are also multiple. If it is difficult to speculate on the characteristics and the framework in which these experiences take place, it is even more difficult to reach a generalized conclusion about their results. McGinn & Street (1986b) argue that the results of such experiments will have different meanings for the various groups affected by the decentralization. Keeping in mind the results obtained about efficiency, which has often been used as an argument to justify decentralization, McGinn & Street argue that:

> For the teachers, improved administrative efficiency in Mexico meant that they would receive better services and benefits while, for the technocrats, it meant a faster flow of information on schools into their computers. In Chile, efficiency, to the economists, meant lower costs for the government, while to the developmentalists it meant a reduction in the number of school drop-outs. This group pushes deconcentration to increase government intervention, while that group pushes for making it private to decrease government intervention. (1986b; p. 39)

There is no doubt that in some cases decentralization has brought about a decrease in the educational system's or subsystem's bureaucracy; however, it is hard to know if this is due to increased efficiency and administrative effectiveness. It is even more difficult to know if the level of participation in sectors marginated from the national life has increased. Its impact on the efficiency and effectiveness of the systems has varied from experiment to experiment, from program to program, in function of contextual factors which in many cases have outstripped the educational system limits. In some cases, it may be said that decentralization has increased the level of participation; however, in many other cases the results have been mixed or questionable.

Educational Decentralization from the Viewpoint of the New Educational Paradigm

As was stated in the foregoing section, the experiences that have been catalogued within the framework of educational decentralization in Latin America are many and quite varied. The contexts within which they have taken place have been highly heterogeneous. The motives or political agendas that have driven these decentralizing actions have varied significantly. The powers that in one way or another have influenced (either supporting or rejecting) each case have come from social situations that were very complex and dynamic. Keeping all this in mind the following basic question occurs: How is a decentralization process seen from the perspective of an educational planner that adopts the premises previously associated with the new planning paradigm? In the first place planners will have to have a systemic vision that allows them to analyze the educational subsystem being decentralized in terms of its interdependence with other subsystems. This means that a true decentralization of power, even when it occurs

on a small scale, will necessitate a systematic and systemic analysis that takes all the contextual ramifications into account. The planners will have to do a structural analysis, identifying those forces that, in one way or another, will be affected by the plan and the dynamics of power existing between them. They will have to delineate a plan of action by stages, through which the existing decision structure may be dismantled and replaced. The planners will keep in mind that a change in one subsystem must be accompanied by changes in other subsystems, otherwise decentralization becomes a maneuver that can further concentrate power, even worse than before. For example, the creation of a participatory management system at the school level would possibly necessitate a reassignment of responsibilities that would in turn modify the power relationships among said scholastic units and the central bureaucracy of an educational system. A system analysis will give the planners the conceptual elements needed to better understand the context within which their plans will be implemented.

A specific analysis of the teleologic element of the decentralization project is of utmost importance as, from the new planning paradigm point of view, the parameters that make up the final goal are those that will guide the situational actions or objectives throughout the decentralizing process. This means that the planner will have to clearly (but at the same time flexibly) state the general direction of the process in such a way that the original vision of the future sought is upheld in each step of the plan. After all, the final goal is only the outcome of the forces that have acted upon its trajectory. In planning decentralized systems it is particularly important to keep in mind that one of the most important goals of the plan will be to develop processes that increase the participation of sectors not formerly included. In other words, the planners will prepare processes of participation which include a teleology different from those plans that are exclusively oriented to action planning and that seek to reach static objectives, perhaps more susceptible to quantitative measurement. The teleology of planning decentralized systems requires objectives that are consistent with a vision of reality defined in terms of dialectic processes. The articulation of the plan's teleologic element will mean that, at any given moment, the political climate, among those who make the decisions about the degree of decentralization and the level of participation they hope to reach, may be measured.

A vision of the dialectic process of reality to be used to plan the decentralization will guide the planners in observing the contradictory forces that act upon the plan. The planners will assume that the reality within which they draw up and implement the plan is neither static nor harmonious, but rather just the opposite. The planners will start with the premise that the forces that are interested in the plan are normally going to be in contradiction. This means that, as part of the systemic analysis, the planners will identify the balance of the forces in power and the nature of the contradictions that exist between them as related to the plan. The planner will carefully choose actions that take this balance of power, in its most concrete forms, into consideration, being careful not to use abstractions based on premises of a linear reality.

This is a perspective consistent with the analysis of McGinn & Street (1986a; 1986b) who argue that to evaluate the decentralization experiences scholars should avoid supposing ahead of time that those who make the decisions about the centralization or decentralization of social structure make up a monolithic whole, and that, quite to the contrary, these policies, in the majority of the cases, are the product of actions involving rival actions with the government. The argument of McGinn & Street consists of affirming that there are always factions within the government that consolidate their power through decentralizing measures such as "shifting power from: the central government to local governments; one centralized agency to another; and in still other cases, the government to the private sector" (p. 25). According to McGinn &

Street (1986a; 1986b) with decentralization the thing that changes is not necessarily "the distribution of power but rather its location" (p. 25).

Starting from the premises discussed before, decentralization can be seen as a systemic restructuring that should facilitate the growth of participation in certain previously marginated sectors, if, that is, said participation is truly part of the plan's teleology. Seen from this point of view, the so-called decentralization and an increase in participation of individuals in general should not be seen as equivalent. The participation is more of a dynamic phenomenon, product of the dialectics existing between sectors that dispute the power, which brings about as a consequence growth in the degree of access to decision making levels for certain social groups. Given the dialectic nature of the reality, participation should not be viewed as a static product, but rather as a dynamic product of the systemic changes, which have to be evaluated in terms of the social processes that are derived from structural changes like decentralization.

Finally, starting from the premises of the new paradigm, the planners should assume that, in a system like the educational one, centralizing and decentralizing actions related to different components of the system can coexist. This is possibly the most widely found situation within the Latin American educational systems. If one of the primordial objectives of educational planning is the growth of participation for certain sectors in the educational processes, then it is very opportune that educational planning, based on a systemic dialectic analysis, will facilitate processes that require different degrees of centralization/ decentralization, in accordance with the levels that will need to be established to promote the participation of historically marginated sectors. In other words, one of the greatest challenges for the region's educational planners is planning processes that promote a participatory culture that requires not only structural changes within the educational systems but also profound changes in attitude among those who make the decisions, those who implement the plan, and the recipients of this sector's services.

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POLICY, PLANNING AND NONLINEARITY [1]

Richard Isenberg and A.P. Johnston

After several decades of research, reflection, and practice, a science of planning remains elusive. Fudge factors attenuated to pure rationality—such as bounded rationality, muddling through, and mixed scanning—have relaxed the rules but have not helped appreciably in making accurate predictions about planned outcomes. Recently, however, there has been discussion regarding the applicability of nonlinearity to social systems (Cronbach, 1988; Cziko, 1989; Geller and Johnston, 1989). If the implementation of plans occurs in a context of unbounded surprise, as it almost always does, what might be found if we searched among the surprises? Rather than dismissing irregularity as error, perhaps it would be worthwhile to study those very things so often dismissed. The authors do not purport to suggest an emerging theory. Theory may or may not be possible, but we are proposing only that the nonlinear be viewed as metaphor, a bridge from the variants of linearity to what might be taken as forms of nonlinearity.[2] As a means of crossing this bridge, we will present a study of the implementation of a state policy on drug and alcohol prevention. Key variables will then be analyzed and interpreted in light of nonlinear themes, followed by a discussion of implications for planning based on the findings from this study.

Description and Findings of the Study

This study examined the implementation of a state educational policy. The policy mandated that all schools in the state establish alcohol and drug abuse prevention programs within a four year period. The framework for this program was laid out by the legislature and was known as Act 51. The State Department of Education and the Human Services Department were given joint responsibility for its implementation. A joint planning group was established to design the program's guidelines and implementation plan.

The joint planning group decided not to adopt a single curriculum to be mandated statewide. Instead they developed a set of program standards describing five areas that an alcohol and drug abuse prevention program should address. It was expected that each school would develop its own program, meeting the state program standards, but tailored to address its unique needs. Although developed on the school level, all programs were to be approved by the state.

The joint planning group also devised the Act 51 Assistance Program. This was intended to aid schools in the implementation of the policy. It solicited schools to volunteer for the assistance program beginning in 1984. The Assistance Program offered training, sample curriculum materials, partial funding, and on-site technical assistance to aid in the development of a school based prevention program. In order to receive these resources, schools had to agree to a set of conditions intended to ensure that they proceeded through the entire assistance program. Regional teams were established, made up of a member from the Department of Education and a member from the Office of Alcohol and Drug Abuse Prevention Programs, to facilitate the development of programs in each school. Forty-three schools were accepted into the assistance program the first year with the expectation that about the same number would be added each of the three successive years meeting the requirement for full implementation by

the end of 1987.

This policy design included many of the factors the research has supported as being important and effective in policy implementation:

1. Addressed an unmet need recognized by many in and out of the schools.
2. Established a set of program standards.
3. Established an organization of support personnel from the State Department of Education and the Office of Alcohol and Drug Prevention Programs.
4. Provided partial funding and material support.
5. Provided for initial training and ongoing technical assistance.
6. While a mandated program, it solicited volunteers to begin implementation.

Considerable thought had gone into planning for the implementation process to support the desired outcomes of the policy. To the extent that a policy can be planned, this could be viewed as a well designed program with every reason to expect successful implementation.

This study focused on the experience of three schools selected from the original 43 who began the implementation process the first year of the program. At the time of data collection the schools were four years into the program. The schools were selected because they had retained most of their key staff throughout the implementation period, were located in different parts of the state, and were organizationally separate. The primary data source was in-depth interviews with all teachers involved with Act 51 instruction, school principals, and any significant facilitators identified by the core sample. In all, 37 interviews were conducted in the three schools.

The interview protocol focused on factors drawn from the literature which were believed to affect the implementation of educational policy. However, the questions were open ended allowing respondents to describe their experience. The results were descriptive and attempted to capture the evolution of the implementation process over time in each of the three schools.

Description of Findings

The Act 51 policy and Assistance Program had anticipated many of the typical problems associated with implementation of new programs. However, not all aspects of the policy were carried out effectively or had the intended effect in each case. In addition, factors not included in the policy impacted in both positive and negative ways on the actual implementation in each school. The findings are organized according to the following schema:

	Positive	Negative
Part of the Policy		
Not Part of Policy		

The Central School had the smoothest implementation experience and proceeded according to the state implementation plan. The school had just become aware of the needs of some of its students for support around substance abuse issues at the time the invitation to volunteer was issued. So the timing in this case was ideal in that the school had a recognized need to

address and potential program to assist. The training, technical assistance and materials provided with the Assistance Program allowed the school to organize a program quickly. The high visibility of the state mandate reduced resistance and made the policy a higher priority than it might have been otherwise.

As part of the Assistance Program each school was to establish a planning group to make decisions concerning the school's program and to provide ongoing technical assistance to individual teachers. In the Central School this group fulfilled those functions, but also evolved beyond the original intent as the needs associated with substance abuse were met. What began as the Act 51 program planning group became known as the Child Advocacy Team and began to address a variety of issues of both students and staff members. It had become a significant organizational structure for addressing student needs and providing leadership for the school. Although it had evolved beyond the original intent of the policy and broadened its focus, it continued to be a very positive factor in support of Act 51.

There were several other factors present at the Central School which positively impacted on Act 51, but were not part of the policy. Among these was the self-referral of several students about substance abuse in their families following the presentation of a guest speaker. This initiated the awareness of the staff that substance abuse was a real problem for a number of their students and a potential problem for all. There was high interest on the part of a number of key staff members. Most notable among these was the school nurse. She was full-time in the school and provided much of the leadership for the program. She had initiated the request to volunteer the first year of the program, made all program arrangements, managed curriculum materials, chaired the Child Advocacy Team, and served as liaison with the state. These were a natural extension of her job, but beyond the typical responsibilities of school nurses. She was viewed by the staff as the supervisor of the program and credited almost exclusively with its success.

Anther positive factor not included in the policy was the fact that the school had an ample budget to supplement the funds provided by the state and was able to purchase virtually all materials requested by the staff to support the program. In addition, there was already a thrust to develop a comprehensive health curriculum within the supervisory union and interest on the part of several staff members to develop formal programs for affective education. Act 51 fit comfortably with both of these goals in a mutually supportive way.

While there were no negative aspects of the policy itself affecting the implementation of Act 51 in the Central School, the process did encounter difficulties. Most notable among these was the lack of leadership on the part of the principal. While he was seen as generally supportive of the program, he was viewed as taking a very passive role. While the school nurse provided much of the organizational leadership, the principal was able to provide little curriculum monitoring in any area. The result was a high degree of teacher autonomy in determining classroom programs and activities. To the extent that individual teachers were supportive of the Act 51 program this worked in a very positive way. However, teachers who were not supportive of or uncomfortable with the program were able to largely ignore it. The result was a wide range of emphasis placed on the program from class to class and little accountability. In addition there were significant antagonisms among staff members around both personal and professional issues. This created a factionalism that affected all curriculum areas and there was little leadership pulling people together.

Another problem with the implementation of Act 51 was the competition with other legitimate academic and social priorities. Even staff members who were very supportive of Act 51 saw it as secondary to the academic program and given less emphasis and time. Time was

a crucial factor throughout the implementation process. There was the pervasive perception that the schools were being asked to do more and more within the same basic time frame. There was clear skepticism that it was possible to do justice to all the programs mandated by the state and open hostility toward the State Department of Education, which was perceived as being unrealistic and too far removed from the classroom to understand the problems their policies created.

The South School ran into difficulty primarily due to the manner in which the terms of the policy were implemented. While each step of the implementation plan was similar, as outlined in the Assistance Program, the expected outcomes were interpreted quite differently. The greatest problem was the writing of the school's curriculum plan. The intent was that each school would tailor a program to meet their unique, site-specific needs. However, in the South School this became an extremely frustrating experience for the staff and ended up taking several years to produce and finally be approved by the state. The staff felt the instructions for the task were unclear and the feedback from the state facilitators inadequate. The result was an extremely detailed curriculum plan several hundred pages long. While the terms of the policy had been met, it had taken an excessive amount of time, used up most of the available funds, and created resentment on the part of the staff toward State Department of Education personnel.

What kept the process moving was the personal commitment of key staff members. While frustrated, confused, and angry with the manner in which the program was being implemented, they supported its basic goals. There was also a tight connection with an independent community group also working to promote substance abuse prevention. The commitment and support within the school community compensated for the trauma created in the formal policy process. Although there had been some staff turnover and a lack of overall curriculum monitoring, the school had in place a comprehensive program.

The North School's experience was dominated by neglect more than trauma. Each of the schools in its supervisory union (district) had volunteered in an effort to obtain funds to jointly develop a comprehensive health curriculum including substance abuse prevention. There was wide acceptance of the need for the policy and a positive aspect was the emphasis on integrating substance abuse instruction into other curriculum areas. However, the process of implementation broke down.

While there was a general understanding about the goals of Act 51, the school staff was unclear about the specific requirements of the program. The supervisory union had originally formed a joint committee to go through the training, produce the documents required by the policy, and pass the information along to the staffs of individual schools. While the committee did go through the training and produce a brief Health curriculum outline, including a section on substance abuse, there had never been follow-up with individual schools. The supervisory union initiative and committee had dissolved and the North School had done no additional work over the next three years to develop the program. There had also been no follow-up or monitoring of the school's progress from the state facilitators. In fact there had been no contact between the school and the state concerning Act 51 for three years.

There were also factors present, not a part of the policy, which inhibited development of the program. First among these were competing priorities. While Act 51 lay dormant, the school successfully developed and implemented programs in student discipline, music, and gifted and talented education. There was no push within or external to the school to keep Act 51 a priority. In addition, there was little curriculum monitoring in any area. Once or twice a year the principal would remind the staff that they should be including substance abuse prevention in their

programs. So there was little active leadership or coordination.

The process of policy implementation had virtually disappeared in the North School due to neglect on the part of the school, the supervisory union and the state. However, the content of the program remained visible. In fact, substance abuse prevention was being addressed by every teacher in some manner. While there was no coordination and the school was not in compliance with the requirements of the program standards, there was nevertheless instruction in drug abuse. Despite the fact that teachers had not gone through the training or developed a school curriculum, they had incorporated the broad goals of the program into their routine classroom activities. While there had been no formal follow-up, monitoring, or accountability, the interest and commitment of individual teachers was enough to produce significant results. The staff knew that they were expected to address substance abuse prevention and they did so despite the failure of the formal process.

Discussion and Interpretation

What was most apparent in this study was that while the policy implementation plan was well developed, the manner in which it was carried out and the resulting outcomes varied considerably in each of the schools. The question for discussion and interpretation is the extent to which, on the one hand, the planned implementation process was responsible for the outcomes and, on the other hand, the extent to which nonplanned factors intervened, overshadowing the role of planning in this state policy.

In the discussion that follows, a linear interpretation is briefly portrayed prior to the nonlinear. This is done for two purposes. First, it suggests the "both/and"[3] quality of the interpretation which we mean to convey, and second, it serves as a reference point to distinquish the main outline of the nonlinear. Regarding the latter, everything that is not in the linear convention is considered nonlinear. It includes, for our purposes, (1) differences in initial conditions, (2) events which just happened to occur, and (3) learning which generates differences. These interpretations of the nonlinear are interactive both among themselves as well as with the variables in the linear tradition. Distinctions among the categories quickly blur, suggesting that the categories are markers only, certainly not evidence of distinctive reality.

Linearity

Linearity is interpreted for our purposes as a science which has been developed under normal science (Kuhn, 1962) assumptions. These suppose that there is sufficient knowledge before something is initiated to specify what is wanted and how to get it. This study confirmed the normal science view in asserting the need for a linear approach: a clear goal or policy, strategies, sufficient resources, leadership, staff willingness and staff capacity for implementation, monitoring and evaluation of results. This rational-macro view is helpful in that the variables which it reveals serve as broad probabilistic markers of what should be considered in planning design. That is, their presence at some minimum level seems necessary.[4] But it should be emphasized that the variables do not in themselves act as predictors of success, for (a) different degrees or types of "availability" of these variables produced a reasonable outcome and (b) no combination of variables was absolutely necessary to successful implementation. Given the long history of confirmations of the role of such processes and predictors as valuable but limited, our question became one of whether or not nonlinear perspectives provide a useful

supplement to these conventional variables.

Nonlinearity

Chaos and The Butterfly Effect

Educational Planning is almost always macro, but micro differences are important to planning outcomes. In chaos theory, Gleick refers to micro differences as the "Butterfly Effect—the notion that a butterfly stirring the air today in Peking can transform storm systems next month in New York" (p. 8). Tiny events or small differences in initial conditions may have large consequences in the physical world (Gleick, p. 23) as well as in the social world, if the chaos analogy is accepted. Even more, these Butterfly "events" tend to be both serendipitous and necessary (Gleick, p. 22) to the outcome. Put succinctly, the thesis is that the unanticipated and often unnoticed turn out to be crucial to planning even though we presently have no way of accounting for them. It is *fortunate* that the probabilities of these events happening are reasonably assured—fortunate in that though fortuituous, they are helpful, and often crucial to the success of the planning. They arise throughout the system (Gleick, p. 23) like small spontaneous experiments just waiting to happen. They are, nevertheless, unpredictable. The focus of this one aspect of chaos theory suggests then, that what planners often curse, the unpredictable and rogue events, are key to success in planning.

This was demonstrated in the present study by the appearance of a speaker on drug and alcohol abuse who, in one elementary school, provoked reactions in children to talk of family problems with substance abuse. These in turn provoked a school nurse to act. Her action became the pivotal point of implementation. The more she did, the more important the program became to the school; without her, the school would have been decidedly less successful.

Also, a different sort of example was crystallized in this study, though one which we could not explore in any depth. If it is correct that planning is enormously dependent on initial conditions which may not even be noticed for a period of time, then *very small* differences among schools in even the conventional variables such as resources, community awareness of a problem, school leadership, and teachers' willingness to address the problem may have varied sufficiently to produce different outcomes. We did not attempt to ascertain how much of a difference makes a difference, e.g., a calibration of the difference between two communities in their awareness of a drug problem, but if the perspective from the science of chaos has validity, even small differences among schools may have had major effects. Clearly the policy was only partially sensitive to these conditions, but it is also the case that the policy may have been as sensitive as possible. In other words, chaos suggests that reality is too complex to be controlled by policy. How any particular micro happening will affect the larger environment is a matter of wait and see. If we follow the analogy, planning in conventional terms is inherently unpredictable in important (though not all) respects. How does one recognize a Butterfly "event"' when it occurs, i.e., before it becomes an effect? There is little in the planning literature, other than occasional paragraphs on "opportunistic planning," to suggest either how to promote the conditions for such events happening or how to recognize them early when they do occur.

To turn back to the policy of concern in this study, the intent was to provide every child in the state an equal opportunity to learn about substance abuse. It was successful in that more was being taught on this topic than previously, but it was not successful in that the policy was implemented in various forms and degrees, sometimes as suited individual teachers, such that

every child did not receive an equal opportunity. In part this was due to differences in initial conditions which were either overlooked or were not dealt with in the fine-grained way required. This directs our attention to the need for research that will pay particular attention to very small differences and events to search for patterns, regularities in the irregular, which have an impact on how plans are implemented. Further implications will be explored in the final section of this paper.

Policy as Cause...of Chaos

As policy is introduced into a system, the system itself reacts in unanticipated ways. "Nonlinearity means that the act of playing the game has a way of changing the rules .... [it] is like walking through a maze whose walls rearrange themselves with each step you take" (Gleick, p. 24). Physicist J.D. Farmer extends the point: "'When you think about a variable, the evolution of it must be influenced by whatever other variables it is interacting with'" (Gleick, p. 266).

This study did not confirm rules change in any formal sense, but clearly the substance abuse program in each school set off reactions which were predictable only in that they could be linked to the policy itself. Otherwise the results were context-specific. Staff embraced or they rejected the policy; the policy demands competed with other programs, or, in a school with at least equal development activity, it was folded into those ongoing activities; administrators led or they sat on the sidelines even when that wasn't their normal reaction. The rules of the game were different in each instance, and implementation came to be identified with whatever action was taking place. Success amounted to something going on in the area of drug and alcohol abuse, irrespective of the breadth and depth of accomplishments. In the end, the rules had changed—adapted to whatever was in existence. The logic (rules) of program planning had capitulated to the empirical reality of the school. Sizer (1988) suggests that this is not unusual, for a school is a micro reality which succumbs to "serendipitous spontaneity" in the "dailiness" of a flow of interactions. Pragmatism dictates that rules change to accommodate reality: we should not be surprised that they do. But it also makes planning an uncertain activity.

Another way of viewing the nonlinearity that pervaded the implementation of this policy is to review the conditions and events, be they prior to or coterminous with the implementation, which, for all intents and purposes, were completely outside of the policy. Indeed, the single most overwhelming finding of this study was the large number of factors which were beyond even the influence of policy[5] (putting aside the normal aspiration to *control* the implementation environment) but which nevertheless had important influences on it (positively or negatively).

Chaos theory may not be of direct applicability in accounting for initial conditions, the events which policy spawns, or just happenstance events, but clearly it draws attention to those areas which have been wicked thickets for planners. Chaos does not cherish randomness or disorder but rather focuses on order in the irregular rather than the regular, the nonlinear rather then the linear, and posits a world which *depends upon* uncertainties for successful implementation. It invites a shift of view from conventional scientific norms to a focus on error for a point of view that may help us get around some very old problems. As Lightfoot (1987, p. 204) reminds us, "a shift in the *researcher's* lens, a shift of language and purview, changes the questions one asks." Or as Gleick (p. 251) puts it, "Chaos could have been discovered long, long ago," but it wasn't because "the huge body of work on the dynamics of regular motion didn't lead in that direction."

Learning as a Destabilizing Factor

Even if we were able to identify initial conditions and the *logical* impact of a policy, the chances of predicting with any preciseness the outcomes of a large-scale action such as a policy or district plan are infinitesimal. This is because individuals have a large repertoire of possible responses to any situation and use this repertoire in a "natural selection" among competing hypotheses in normal learning activities (Cziko, p. 20). This

> perspective on learning suggests that even if a previously found 'effective' learning environment could be replicated exactly, it would be very unlikely to lead to the same learning outcomes, *even in an identical physical environment using genetic clones of the original teacher and students.* This realization . . . poses severe difficulties for the generalizability and applicability of the findings of 'scientific' educational research (Cziko, p. 20; italics in the original).

This is not to introduce a specific finding of the substance abuse study, for clearly it is not, but rather to point to a problem for all of educational research, including planning and policy research. If the proposed plan or policy requires the implementors to think about the process, the chances are virtually 100% that they will introduce something that wasn't in the original intent. This could be a small point except for the fact that current epistemological thought suggests that in order to achieve high performance,[6] implementors must be intimately and thoughtfully involved in all aspects of planning and policymaking.

Zuboff (1988) makes the distinction between acting on and acting *with* those who carry out the operations. Conventional linear planning assumes a malleable objective world upon which planners can work their will—*acting on* a passive environment much as students have been conceived as empty receptacles to be filled with knowledge. In contrast, not unlike Dewey's contrasting notion of learning by doing, the nonlinear speaks to an epistemology of a changing reality (Lewis, 1986) which *in crucial ways can be known only by thosewho participate in it.* Implementor involvement is thus not to gain acceptance of a policy or plan, an attempt to get others to "buy into" an already formed plan, but to involve implementors in actively using their intelligence to help develop the plan. Under this conception, planning becomes an interaction with the people and events in the implementing environment. The plan loses all identity with authorship (Zuboff, p. 180), and conversation among participants is at least as important as the written plan. As Loye and Eisler (1987, p. 57) point out, the traditional tendency has been to turn to experts for problem solutions while a nonlinear view suggests the need of the nonexperts (in the formal sense) to intervene on their own behalf.

There were numerous instances of particularly teachers in this study who interpreted the policy as each saw it and implemented (or not) as he or she saw fit. Irrespective of the policy itself and the formal process, teachers learned, interpreted, tried out, and so on. The written policy sometimes failed but the policy enacted succeeded. Clearly stability in a nonlinear world is not a static stability of uniformity and smooth curves but the dynamic stability of an active learning-doing environment. The latter works. That leads planners and policymakers back to pragmatism and conforming with reality. If nonlinearity seems natural, at least as a metaphor, the question now is how the intellective process of planning can join the flow of naturally

occurring events and improve on them.

Further Analysis and Conclusion

It should be underscored that an interpretation of this study found reason to incorporate linear as well as nonlinear theory in analyzing the state of planning science. This reflects those variables that hold in general but are also, coterminously, idiosyncratic. Sometimes order appears at the macro level, as in looking at voting patterns which appear chaotic at the micro level but make sense when aggregated (Converse, 1989). Sometimes order appears amidst chaos, not out of macro patterns, but through individuals self-organizing, each with his or her own guide and tempo, as in making trades on the floor of the stock market (Loye and Eisler, 1987). The parallels in this study occurred when we saw the importance of having a policy in the first place—there was more macro order (more teaching about drug abuse after the policy than before)—and more micro order as teachers taught their own way into a drug abuse curriculum. Schools sometimes were not in compliance with state standards, in which case micro order appeared to be disorder, but children were nevertheless learning about drug abuse. The linear and the nonlinear were operating simultaneously. Planning does work. But we feel that the science of planning will not be advanced in any significant way through refinement of linear research and procedures. There may well be flaws in any policy, but the fundamental flaw is not in what we don't know about policy design. Rather the difficulty is a macro, smooth curves approach to a reality that in important respects is also micro and bumpy, rogue and runaway, a reality of almost infinite variety in the implementation environment. Starting with micro differences and working backwards to policy (Elmore, 1980) is a helpful step, but it does not meet the reality described in this study. It is much more complex and nonlinear. Planning in terms of the latter suggests forming a direction followed by a conversation about goals and processes as interpreted from *both* a macro and a micro perspective. Interpretations will differ, probably often without logical resolution, but that is not terribly important as policy is never completed any more than science is completed. It gets interpreted, tried, reinterpreted and redefined as it is implemented. If the nonlinear interpretation resonates with physical reality, with what people describe as their life events, then nonlinearity is a reasonable candidate for a theory to deal with it. It's hard to top reality as people experience it.[7] Nonlinearity may lead us to a better understanding of the "both/and" world of order *and* disorder, micro *and* macro, linearity *and* nonlinearity. A nonlinear view as an alternate lens could lead us to a greater appreciation of what should not even be attempted to control for fear of killing what is necessary to promote. The question is how to take advantage of natural occurrences which can be turned into serendipitous events (and to learn which cannot). By way of general conclusion, this study suggests to us that policy and planning are not likely to become more scientific in the conventional sense, but nonlinearity may well change the meaning of science. A new meaning would focus on the dynamic stability that Darwin saw in the ever-present and naturally occurring experimentation in nature. This contrasts with the side of Darwin which stressed the static stability of (also) naturally occurring macro order—the smooth lines of inevitable development of species. Stressing one side over the other has proved convenient, but it does not necessarily correspond to reality. As theoreticians and practitioners in planning and policy, it is time to turn inquiry to the world of irregularities and errors to see if any sense can be made of it all. It is a far more difficult task than conventional research, but, we suspect, potentially far more rewarding also. Using the metaphor of the mirror to describe these two sides of the

world, Briggs and Peat suggest that we "savor the odd experience of being on both sides of the mirror-world at once" (Briggs and Peat, 1989, p. 81).

Endnotes

1. For purposes of this paper, policy and planning are being used synonomously except when clear in the text that policy refers to the state policy under review.

2. Nonlinearity as a theory of social science is a great distance away; our purpose here is only to present a means of getting comfortable with the idea of nonlinearity. Northrup cites Einstein talking about the theory of relativity: it is "not my intention to present the General Theory of Relativity as a simplest possible logical system .... But it is my goal to so develop this theory that the *reader experiences the psychological naturalness* in a persuasive manner ..." (p. 24, emphasis added). Our intent is only to develop a sense of naturalness.

3. As distinquished from either/or.

4. Of course it can be argued that the variable must always be "present" at some level. It would be difficult to argue the complete absence of, for example, resources or staff capacity in a school.

5. It is worth calling attention to two specific types of out-of-policy-control events which appeared in this study. First there were those events which preceded identification of a policy need which had an independent influence on its implementation. Such was the case of a concerned citizens group in one community that played an active role in implementation despite a lukewarm response by the school. Another type consisted of events which just happened with *no* relationship to the state policy. An example here was a school district which happened to be developing a comprehensive health curriculum when the policy was enacted. Such coterminous efforts sometimes facilitate, but at other times compete with, a new policy.

6. High performance means high performance in outcomes, not high fidelity (compliance) in implementation.

7. Its origin in the physical sciences suggests that there should be some correspondence (Burke, Lewis). Flora Lewis argues that "Reality is pluralistic, shifting, often contradictory. Order is always decomposing and building up again in other ways."

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EDUCATIONAL PLANNING FOR THE 21st CENTURY

Richard H.P. Kraft and E. Warren Tyler

One of the primary purposes of public education has always been to prepare students to succeed in the job market. The *Annual Gallup Poll of the Public's Attitudes Toward Public Schools* (1989) shows that 88% of the respondents said that their major concern was that "their children be able to get good jobs and achieve financial security." In other words, the foremost social expectation for public education, what parents and society as a whole expect most from schooling, is that young people exit school equipped to be economically self-supporting. For the past two decades, however, schools have not performed this basic mission with any reasonable degree of success.

In 1983, the National Commission on Excellence in Education published its report, *A Nation At Risk*, in which it warned of "a rising tide of mediocrity that threatens our very future as a nation and a people." The Carnegie Council of Policy Studies in Higher Education stated that "because of deficits in our public school system, about one-third of our youth are ill-educated, ill-employed, and ill-equipped to make their way in American society." More to the point, Elizabeth Ehrlich (1988) reports, "of the 2.4 million who graduate [from high schools] each year, as many as 25% cannot read or write at the eighth-grade, or 'functionally literate' level." She also notes that most 17-year-olds in school cannot summarize a newspaper article, write a good letter requesting a job, solve real-life math problems, or follow a bus schedule (Ehrlich, 1988, p. 129). The likelihood of these 17-year-olds finding employment in the present economy is very slim and steadily dwindling.

The World of Work in the 21st Century

In economic terms, national boundaries are almost meaningless. Every country participates in the global economy. Most U.S. corporations as well as the major corporations of other countries have become international corporations, and many middle-sized companies have formed international consortiums. What Japanese or European businessmen decide has a direct impact on the U.S. economy as well as the economies of other countries. Thus, for example, IBM, a U.S. based international corporation with manufacturing plants in several countries, not only decides what products it will produce, but it also decides in which country it will produce them. Likewise, Honda can decide to produce cars in the U.S., Japan, or one of several other countries. These decisions directly impact the jobs and employment opportunities within a given country, and place labor in one country in direct competition with labor in other countries.

The global economy is not the only factor affecting the U.S. job market. The American economy has been in the post-industrial era, or as it is more commonly called, the information era, since the late 1940s (Naisbitt, 1984). Since World War II, U.S. heavy industry has steadily declined, partly due to foreign competition and partly due to shrinking domestic markets. For example, most Americans, whether they buy a foreign or domestic automobile, are simply trading an older car for a newer one—this is a replacement market not a growing one. While heavy industries have been in a steady decline, the service industries have grown rapidly.

Service industries, however, require a markedly different type of worker than did heavy industry.

In the September 18, 1988 issue of *Business Week*, Aaron Bernstein writes, "technology is upgrading the work required of most jobs. The modern workplace needs people with high reading and math capabilities." He also notes that "as companies shift from the old models of assembly-line production to Japanese-style work teams, employees will have to sharpen their abilities to communicate and cooperate." Tom Peters, co-author of *In Search of Excellence* (1983) and author of *Thriving on Chaos* (1987), says companies are looking for "brains not lumps." What he asserts is that in the post-industrial era, the primary resource of industry is capable people and not minerals and materials because of the new dependence upon computers, communication networks, and the instantaneous processing of information. Outside of a few fast food enterprises, most service industries will not hire people who cannot read or write.

The changes in the private sector are revolutionary. Over the past ten years, 67% of jobs created in the private sector have been in businesses with less than twenty employees (Davis, 1987). In the same time period, the Fortune 500 companies (which are so listed solely on the basis of organizational size and not on the basis of return relative to size) did not add any new jobs. In 1945, agriculture accounted for 2% of the employment and 2% of the U.S. GNP, industry accounted for 39% of the employment and 35% of the U.S. GNP, and service accounted for 57% of the employment and 56% of the U.S. GNP. By 1985, service industries accounted for 77% of the employment and 70% of the U.S. GNP, and by the year 2001, service industries are expected to account for 93% of the employment and 73% of the U.S. GNP (Davis, 1987, p. 97).

Table 1 lists those occupations expected to grow the fastest between now and the year 2000 both in terms of percentage of growth and in terms of absolute growth. All of the occupations listed are in the service industries, and few require education past high school. The catch, however, is that twelve years of education is expected to produce a person who is literate, numerate, responsible, and capable of learning.

Table 1. Employment, employment growth, and required education for the fastest growing occupations in the United States, 1986 to 2000 (numbers in thousands)

	Employment —		Job growth 1986-2000		% of	Required education
	1986	2000	No.	%	total	(years)*
Fastest relative growth (percentage increase)						
Paralegal personnel	61	125	64	103.7	0.3	13-15
Medical assistants	132	251	119	90.4	0.6	13-15
Physical therapists	61	115	53	87.5	0.2	16
Physical & corrective therapy assistants	36	65	29	81.6	0.1	12
Data processing equipment repairers	69	125	56	80.4	0.3	13-15

(Table 1 continued)

	Employment — 1986	2000	Job growth 1986-2000 No.	%	% of total	Required education (years)*
Home health aides	138	249	111	80.1	0.5	12
Podiatrists	13	23	10	77.2	0.0	17+
Computer systems analysts	331	582	251	75.6	1.2	16
Medical records technicians	40	70	30	75.0	0.1	13-15
Employment interviewers, employment service	75	129	54	71.2	0.3	13-15
Total	956	1,734	778	81.4	3.6	
Fastest absolute growth (number of jobs)						
Salespersons, retail	3,579	4,780	1,201	33.5	5.6	12
Waiters and waitresses	1,702	2,454	752	44.2	3.5	12
Registered nurses	1,406	2,018	612	43.6	2.9	13-15
Janitors and cleaners	2,676	3,280	604	22.6	2.8	12
General managers and top executives	2,383	2,965	582	24.4	2.7	13-15
Cashiers	2,165	2,740	575	26.5	2.7	12
Truck drivers	2,211	2,736	525	23.8	2.5	12
General office clerks	2,361	2,824	462	19.6	2.2	12
Food counter workers	1,500	1,949	449	29.9	2.1	12
Nursing aides and orderlies	1,224	1,658	433	35.4	2.0	<12
Total	21,202	27,404	6,202	29.2	29.0	
Total employment	111,623	133,030	21,407	19.2	100.0	12

*Highest level of schooling completed by the majority of employed workers in that occupation as of March 1986.

Sources:
George T. Silvestri and John M. Lukasiewicz, "A Look at Occupational Employment Trends to the Year 2000." *Monthly Labor Review*, vol. 110. no. 9 (September 1987). Table 3; Tabulations based on the March 1986 Current Population Survey. U.S. Bureau of the Census.

The U.S. Department of Labor devised a scale from one to six which describes the

vocabulary, reading, and writing skills needed by various job classifications. They are as follows:

LEVEL 1	LEVEL 2	LEVEL 3
Has limited reading vocabulary of 2,500 words. Reading rate of 95 to 125 words per minute. Ability to write simple sentences.	Has reading vocabulary of 5,000 to 6,000 words. Reading rate of 190 to 215 words per minute. Ability to write compound sentences.	Can read safety rules and equipment instructions, and write simple reports.
LEVEL 4	**LEVEL 5**	**LEVEL 6**
Can read journals and manuals, and write business letters and reports.	Can read scientific/ technical journals, and financial reports, and write journal articles and speeches.	Has same skill as Level 5, but more advanced.

(Bernstein, 1988, p.105)

According to the Hudson Institute, an economic think tank and consulting firm, between now and the year 2000, about 78% of those entering the workforce will be able to function only at levels 1 and 2, about 17% at level 3, and about 5% at level 4 and higher. Meanwhile, an estimated 60% of the new jobs will require level 3 and higher skills. Although forecasts are always subject to question, these figures do not differ much from those proposed by Naisbitt (1984) or Davis (1987). More important, however, are the implications of such projections.

In 1987, the New York Telephone Company had to test some 60,000 applicants to find 3,000 people they could train and hire to fill low-level positions within the company (Bernstein, 1988). As a consequence of such persistent shortages of trainable applicants, the company turned to technology to replace people. In the 1970s they had 104,000 employees, but by 1988 they had reduced to 50,000 employees. Obviously more and more companies, faced with the same situation, will turn to the same solution. The effect will be that those who are trainable will acquire more skills, be more in demand, and consequently receive higher wages, while those who are untrainable or only trainable at great expense will be jobless or relegated to the low wages resulting from a surplus of unskilled labor.

The social consequences of this situation are quite clear. Currently, black and Hispanic minorities bear a disproportionate share of unemployment and low paying jobs. These same minorities are also overrepresented among school dropouts and the functionally illiterate. If, as predicted, more and more jobs will require functional literacy and numeracy, then, unless their education is improved, more blacks and Hispanics will be economically disenfranchised. Further, if public schools cannot provide an educable labor force, then U.S. business may

pressure Congress to allow the large-scale immigration of skilled workers. The precedent has already been established. In 1989, due to the shortage of nurses, 20,000 foreign nurses were given five-year work visas so that U.S. hospitals could continue in service (Ehrlich, 1988). In effect, the U.S. Gross Domestic Product per capita may continue to grow, but individual incomes may shift dramatically, creating two widely separated groups: those without jobs, incomes, or future prospects and those with jobs, high incomes, and bright prospects.

Before World War II, the American workforce was one of the most capable and productive in the world. Today, the American worker is faced with global competition from foreign workers who are at least as well educated as he and who aspire to the same standard of living that most Americans enjoy. As we all know, products bearing such well-known American brand names as Sears, Sylvania, and J.C. Penney are now made in Korea, Malaysia, Indonesia, or Nigeria. Of course this exporting of jobs is a trend not limited to our own economy. Many of the well-known Japanese product brand names such as Sony, Hitachi, and Toshiba now are made in Third World countries. But Japan's highly skilled labor force is much better eqipped to move into the burgeoning service industries than is ours.

In the industrial era, the market place was a physical entity, lead times for new products were measured in months and years, and the workforce labored at routinized tasks far removed from the customers. Today, however, market transactions occur at any time, any place, and production lead times are measured in hours and minutes. Banking services, for example, which once were only available from 9 a.m. to 2 p.m., are now available any time, any place. In fact, day or night transactions with many banks can be conducted in seven seconds in the U.S. and in eleven seconds from overseas locations (Davis, 1987). Similarly, in manufacturing, computer assisted design (CAD), computer assisted manufacture (CAM), and computer assisted assembly (CAA) have reduced lead times for product changes to seconds, and have eliminated the need for large inventories and distributor warehousing. More importantly, in the service industries it is the worker, not management, who has contact with the consumer. Consequently, the appearance and demeanor of the worker are critical to the success of the business.

Manufacturing and heavy industry are not the only areas where American workers face cutthroat competition. In the information era things happen quickly, and no corner of the globe is out of reach. Tom Peters (1987) notes that a London law firm now faxes its rough drafts for typing to a high-tech clerical firm in Taiwan. Unavailability of skilled typists in London would have been a serious problem in earlier years. To obtain local typists, that same law firm would have had to raise salaries, subsidize training or both. Now, however, technology has presented new options to employers: they can simply go elsewhere for the skills they need. If London schools don't produce enough highly skilled typists, no problem. Employers no longer need to be bothered with preparing unready workers.

American businesses spend an estimated $30 billion annually on training (Bernstein, 1988). Much of this is spent on training current employees in the use of new technologies that the companies are planning to install or in procedures that produce greater customer satisfaction. For employer and employee alike, failure to meet customer expectations leads to failure in the market. Consequently, employers are looking for employees with sound reading, writing, mathematical, and learning skills as well as "pleasant" personalities. Training employees in how to do the work the company way is simply viewed as part of the cost of doing business. Training is a continual process in these companies (Peters, 1987). In most cases, however, employers are unwilling to fund slow and costly remediation programs for those who are functionally illiterate, incapable of teamwork, or exhibit antisocial behavior. Consequently,

those entering the job market with skills below level 3 as described by the Department of Labor are likely to remain unemployed.

Human Resource Development

In the early 1960s, the works of T.W. Schultz (1961), E. Dennison (1962), and Harbison and Myers (1964) demonstrated to the satisfaction of most economists and educators that there was a causal linkage between levels of education within a populace and levels of national income or economic growth. Few development planners questioned the theory that investments in education to develop human capital would pay dividends in national economic growth. By the late 1960s, however, the general consensus had fragmented into three different schools of thought about the best methodology for planning education development in Third World countries. These were: "manpower," "rate of return," and "social demand" planning.

Manpower planning takes a narrow, purely economic perspective. The planner simply focuses on producing the numbers of specific skills that, according to long-range macro economic forecasts, will be needed in the future labor market. Rate of return analysis allows a slightly broader perspective, but is still based on purely economic projections of national growth in various sectors of the economy, and on the relationship between levels of education and income. Rate of return planners look for educational programs that correspond with the forecasted economic needs and select those programs that offer the best returns on the resources invested. Where a manpower planner might allocate resources to selected vocational education programs, a rate of return planner might allocate resources to primary education on the grounds that it increases the earnings potential for more people at less cost.

Both of these approaches have strong appeal for many planners because they seem so rational. The success of either manpower or rate of return planning, however, depends exclusively on the reliability of long range economic forecasts, which have, unfortunately, proved to be notoriously inaccurate. Third World countries, where these two methodologies have been used extensively for educational planning over the past two decades, have had very little success. In too many cases, social, economic, and political problems within these countries have been exacerbated by development efforts based solely on economic ends.

Social demand planning is much more difficult to define because it has different applications in different disciplines, and because it not tied to any particular analytical methodology. Davis (1980) says that planning is based on "social demand" if planning targets are expressed in terms of demographic needs, social and ethical goals, or aggregate private demand for some level or type of education. Only the last of these categories is tied to economic theory. The other two categories are tied to politics, which often resolves issues on the basis of "political reality" while ignoring the value of the resources among various possible trade-offs. Much of current U.S. educational planning is dominated by the social demand approach which Edding and Naumann (1968) described with economic brevity as "the effective demand for places in formal education." The usefulness of this approach in planning, however, is limited by uncertainty as to the relationship between levels of education and levels of personal income, and by the uncertainty as to the reasons individuals choose one level of education or curriculum over another. In light of these persisting uncertainties in social demand projections, the only general conclusion which can be drawn is that "extra years of education might very well have been related to higher levels of GNP throughout the twentieth century; but this may have had very little to do with the formal academic curriculum of the schools." The truth is that human

capital theorists and researchers simply do not know the relationship between education and income (De Young, 1989).

The preceding capsulizes two decades of critical discourse among economists, educators, and planners. As John Mace (1984) points out, however, much of the criticism against educational planning and investment choices in education can be corrected by replacing macro economic techniques with micro economic techniques of analysis. Cost-benefit analysis, input-output analysis, internal rate of return analysis, and so forth are much more pertinent to decision making and policy formulation than macro economic estimates. In other words, micro economic analysis techniques can help guide planners in choosing the most efficient alternative among several politically feasible alternatives.

Educational Reform in the 1990s

Between 1983 and 1985, following the release of *A Nation At Risk*, the state legislatures enacted more than 700 statutes stipulating what should be taught, how it should be taught, and by whom it should be taught (Futrell, 1989). In fact, most of the reforms centered on testing teachers, teacher qualifications, student testing, and school "accountability." As one would expect, the effect was disappointing. In an August 1989 Harris Poll, the public rated schools lower than in 1986, and expressed the belief that the reform efforts were ineffective. Speaking before the National Governors' Association in 1989, Albert Shanker, president of the American Federation of Teachers, said:

> We are the only industrialized country that does not have a national, regional/state curriculum. We still have not focused on the issue of what we want students to know and be able to do. By now states and districts have fat books of curriculum guidelines and behavioral and skill objectives where the essential and the trivial are indistinguishable. It is impossible for teachers to cover all this in a meaningful and coherent way (cited in *Kappan*, Vol. 71, No. 3, p. 182).

The 1980s were supposed to be the decade of educational reform, but educators, politicians, policy makers, teacher unions, child advocacy groups, parents, and business leaders argued, bickered, and nullified each other's efforts (Futrell, 1989). Consequently, no meaningful reform occurred. Public concern for education, however, has steadily increased, and politicians are listening. Just prior to President Bush's summit meeting on education with the state governors in late September 1989, the National Governors' Association (NGA) released *Results in Education: 1989*. Recommendations contained in this report called for establishing national education goals, for establishing a results-oriented accountability system, and for improving curriculum to provide a better educated *workforce* [emphasis added] (Pipho, 1988). The NGA also established a Task Force on National Performance Goals. The aim of this task force is to establish nation-wide standards of what students need to know and be able to do.

As Mary Futrell suggests, the bickering among reform factions was probably cathartic, and forced most of those involved to reach consensus on the gut issues. These issues were not a matter of "improving" schools, achieving "excellence," or having "quality" programs because these words provide no specific information on precisely what is expected. Instead, the issues focused on determining the specific skills, knowledge, and ethical values we want students to

learn.

Planning for the Future

The challenge to both the policy planner and the program planner is to make the reforms produce the intended outcomes. As Johnston and Moore (1986) pointed out, centralizing control of education, specifying the method of reform, and making one-size-fits-all laws has not worked in the past.

How *should* schools be organized? Peters (1987) and Peters and Waterman (1983) have shown that the most successful and productive organizations are: (1) those in which the people within the organization share all the information, and are encouraged to be creative, exercise judgement, and use initiative, (2) those in which the organizational structure has been flattened (mid-level management and staff eliminated) so that up-down communication is quick and clear, and the boss is accessible to everyone, (3) those in which decision making has been decentralized to the job level, and (4) those in which teamwork, personal growth, and friendly competition are expected. State education systems are ideally suited to adopting this organizational style and structure. After all, people entered the teaching profession expecting to be effective, productive members of an organization dedicated to guiding children's learning. They are, however, leaving the profession within 3 to 5 years, not because the pay is low, but because the present educational organizations are antithetical to teaching and learning (McLaughlin, 1986). The flattened, networking, communicating type of organization that Peters describes is the natural structure for good schools, unlike the hierarachical, compartmentalized education empire that exists in most states.

U.S. education from grades 1 through 12 is a responsibility of the individual states, not the federal government. On the basis of organizational size and function, public schooling within any state is comparable to any of this nation's largest service industries. If any of the large private sector service industries, however, faced as high a turnover of skilled labor and as much customer dissatisfaction with its product as public education does, the stockholders would have replaced its management and forced a complete reorganization years ago. Essentially, this is what the public is telling the politicians it wants done with most state school systems.

In planning for the 21st century, educational policy and program planners should consider that nothing within the current educational systems is sacred. For example, reducing staff size at every level between district offices and state departments of education may facilitate communication within the state educational system while making more classroom teachers available at no increase in total system cost, and may also reduce costly paperwork currently required by the staff. It should be noted that rarely do these staffs have any contact with teachers or students, and nearly all of their communications are among themselves. Consequently, their contribution to the primary mission of the schools should be carefully scrutinized.

Similarly, there is nothing sacred about the traditional model of a high school which requires six or seven fifty-minute classes per school day, and which requires that courses run for a semester or the entire school year. No adult would remain with a company that forced him to work for six or seven different bosses each day, that forced him to pack up his work and move to a different desk in a different room every hour, and that forbade him to talk to other employees. Yet, this how we have structured high schools, and we wonder why so few students are learning. There are alternatives. One such is the Copernican model (Carroll, 1990) for course scheduling which offers a design for restructing class times and school year curriculum

that closely resembles the more effective instructional programs run by businesses and the military. The point is that schools, at least high schools, should begin to resemble the world that their students will soon be entering.

Vocational programs pose a different set of problems. Few school districts can afford the annual maintenance costs, let alone the capital outlay, that high-tech vocational programs require. Even districts that could afford such programs would rarely have a labor market for its graduates that was large enough to justify the expenditures. On the other hand, where warranted, high-tech vocational programs could be provided through cost sharing partnerships with local industries that were willing to provide the training. In most schools, however, vocational programs are used to "cool out" students that are not going to college, and to retain potential dropouts. In view of the prospective labor market, vocational programs might be more effective if they were used for basic skills remediation, and if they concentrated on teaching students how to present themselves, how to work cooperatively in groups, how to relate effectively with customers, and how to use common computer programs.

Although much of the earlier reform efforts focused on improving teacher and school administrator quality, few of these efforts have proven effective. Florida's teacher test is typical of the efforts of many states. Florida tests teachers for reading comprehension, writing, and math skills at the eighth-grade level. Surprisingly, as high as 20% of the seniors graduating from colleges of education continue to fail this test. While it is certainly better to detect these failures late then never, it would be more effective to raise the entry standards of the colleges of education. This would not only prevent the undereducated from entering the teaching profession, it would also raise the prestige of the profession.

The coming teacher shortage also merits serious attention. Many of the needed reforms will simply not be feasible unless there are enough teachers. Attempts to devise alternative methods for teacher certification in order to attract noneducation majors to teaching have not proven satisfactory. First, there is the legitimate concern that regardless of the subject knowledge, teachers need to have a sound understanding of pedagogy. Then there is the legitimate criticism that many of the required education courses are vacuous or offer little of practical value, or that much of the material could be succinctly covered in much less time. Streamlining teacher preparation programs by combining the essential content of several courses, thereby reducing the number of courses required, would make it easier for those without degrees in education to enter the teaching profession. Such a program would also allow those students majoring in other college programs to meet teacher certification requirements without having to change their majors. Regardless of what approach one takes, the issue needs to be resolved in favor of recruitment.

These examples represent only a few of the many areas within the present education system that planners should seriously question. Alternatives to the current educational organization and educational programs are numerous, and many of these could make programs more effective and the organization more efficient. There should be no doubt, however, that there is an overwhelming need for educational reform. It is up to the educational planners to guide the policy makers toward making the right choices.

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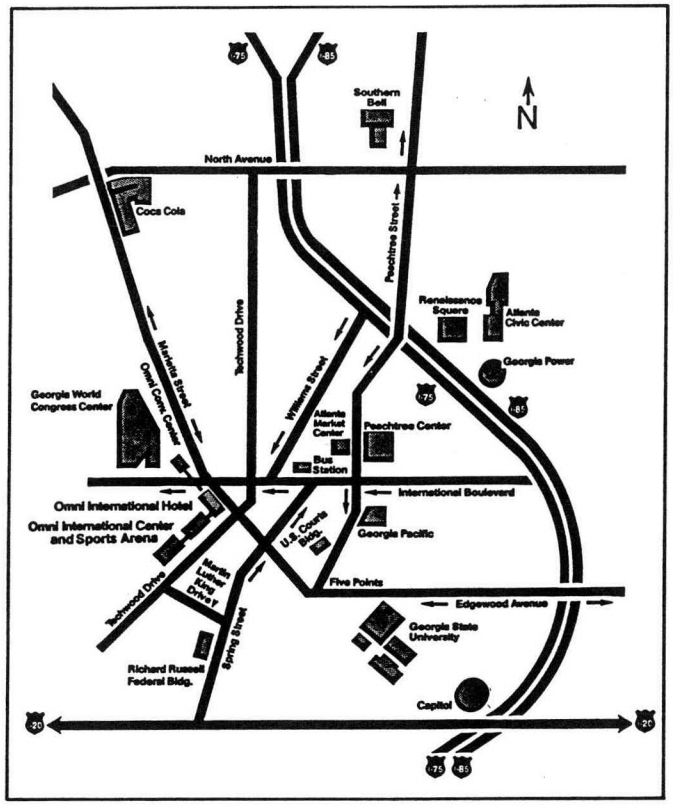

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ORGANIZATION	The Society was founded on December 10, 1970, in Washington, D.C. Over 50 local, state, national and international planners attended the first organizational meeting. Since then its growth has demonstrated that there is need for a professional organization with educational planning as its exclusive concern.
PURPOSE	The International Society for Educational Planning was established to foster the professional knowledge and interests of educational planners. Through conferences and publications the Society promotes the interchange of ideas within the planning community. The membership includes persons from the ranks of governmental agencies, school-based practioners, and higher education.
MEMBERSHIP IN THE SOCIETY	Membership in the Society is open to any person active or interested in educational planning and the purposes of the Society. To join the Society or renew a membership, please complete and submit the enclosed form. Please forward check and membership form to: Dr. Robert H. Beach, Treasurer Box 870302 312 Wilson Hall University of Alabama Tuscaloosa, Alabama 35487

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