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An Assessment of the Effectiveness of Strategic Planning Systems Within Educational Organizations

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by

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DEDICATION

To My Loving Parents, Eddie and Mabel Knox

VITA

The author, Deborah Joyce Knox is the daughter of Eddie L. Knox and Mabel (Crutcher) Knox. She was born in Chicago, Illinois on March 14, 1955. Miss Knox attended public elementary schools in Chicago and graduated from Harlan High School in 1972. She received a Bachelor of Science degree in Special Education from Chicago State University in 1975, and a Master of Science degree in Special Education from the same University in 1978.

Miss Knox began her professional career in September 1975, with the Chicago Board of Education, as a teacher of multiply handicapped students at Davis Developmental Center. She is currently a teacher of physically handicapped / other health impaired students at Jane A. Neil in Chicago, Illinois.

SUMMARY

The Strategic Planning process is defined as a process that (a) identifies the purpose of an organization, (b) determines internal and external forces which impact an organization, (c) analyses the forces that these factors have, or will have on the organization (d) develops strategic plans or strategies to achieve the mission.

Strategic Planning is a process that has been successful in the business world, but it is a relatively new process in the educational community. Before this process can be used effectively in the area of education, the process must be studied, in order to determine (1) if the strategic planning process is effective in the area of education and (2) what, if any specific actions or conditions make it a successful process.

This study examined the use of the strategic planning process in the educational organization in order to determine:

1. to what extent educators are currently involved in the strategic planning process.

2. if these planning systems are effective.

3. if specified conditions (7 dimensions of planning) are directly related to effectiveness in planning.

4. how strategic planners and nonstrategic planners compare.

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CHAPTER I

INTRODUCTION

General Background

A review of administrative literature reveals an abundance of information which suggests that planning within the educational organization is a process of central importance. Yet there is concern that the educational community lags behind business and industry in the area of planning, more specifically in the area of strategic planning. In a recent study, Lewis (1983) concluded that only 30 % of all state departments of education require some form of long range or strategic planning. This is of particular concern to many because of the widespread belief that effective planning contributes to increased productivity and efficiency within the organization.

Planning is defined as "any set of formal and rational activities that seek to anticipate conditions, directions, and challenges at some future point in time for the purposes of enhancing the readiness of personnel and the organization to perform more effectively, and to attain relevant objectives by optimal means (Knezevich, 1984, p. 97).

Strategic Planning is a process that: (a) identifies the purpose of an organization, (b) determines internal and

external forces which can or do impact the organization, (c) analyzes the forces that these factors have, or will have on the organization; (d) develops strategic plans or strategies to achieve the goals, and (e) institutes action plans to carry out those strategies to achieve the mission. This process is based on the concept that "visualizing the ideal is an absolute necessity to achieving that condition" (Ingram, 1985, p. 15).

One basic difference between the concept of long term planning and strategic planning, is the idea of planning around existing conditions. Long term planning was designed to develop and carry out a set of plans designed to improve existing conditions within an organization. The existing conditions were used as a basis for reform. Long term planning assumed a static or unchanging environment. It did not take into account a changing, dynamic world.

The strategic planning process is based on the concept that we are in a changing world. It examines internal and external conditions which affect the educational organization. The process defines the purpose of the organization, describes the desired image of the organization, and devises action plans and activities to help achieve that goal. Strategic planning focuses on the desired condition of the organization and diminishes the importance of existing conditions. It is a process which recognizes the dynamic nature of our world and takes into account current changes or possible changes when plans and

decisions are being made. Goals and objectives are devised to promote the achievement of the overall purpose or mission of the organization.

The general purpose of any type of organization is to prepare the organization for a better, more productive future. In the business world, this could indicate the need for a better product, or a desire for increased profits. In the educational community, a more productive future can be interpreted as better student achievement, and sufficient preparation for the world students will face as adults.

Managers and administrators often recognize that the quality or lack of quality of our future depends on the caliber of our planning techniques. Our current actions will affect the quality of the future for individuals as well as for organizations. Planning is an ongoing process; planners must use time, space and funds effectively to adequately prepare the organization for a more productive future.

According to Lewis (1983) planning is not a panacea. It "will not solve all educational ills, predict the future accurately, or prevent mistakes. Planning will, however, minimize the degree to which administrators and teachers will be caught by surprise and enable them to revise goals and objectives by reacting to dynamic variables within the school - community environment" (p. 3). Lewis (1983) synthesized a number of planning definitions, to include these key

concepts:

1. Planning must be long- and short-range in duration. Short range plans are implemented to achieve long-range goals.

2. Planning is a comprehensive and systematic strategy for the effective and efficient use of human and nonhuman resources to effect change and improvement in the school organization.

3. Performance gaps are eliminated and opportunities are explored to improve the overall performance of the school district.

4. Internal and external variables that can affect planning decisions are determined as accurately as possible so that these variables can be considered in the overall planning process.

5. The planning process is incomplete if it does not include a systematic method for the evaluation of performance standards toward long-range goals, short range objectives, performance standards and the execution of plans.

6. Planning is a continuous process that involves representatives from all areas of the school district. It is not a yearly or quarterly exercise.

7. Planning is not forecasting. Forecasting is an essential element of planning, which predicts what will happen on the basis of certain assumptions. The planning process differs, in that it is an attempt to determine what

should occur and what steps should be taken to make it happen.

8. Crucial areas of the school organization must be pinpointed so that plans can be initiated to improve results in these areas.

9. Planning views strengths as internal variables and opportunities as external variables that may affect planning positively. Likewise, weaknesses are viewed as internal variables and problems as external variables that affect planning negatively unless corrective actions are taken. The interrelationship of these variables must be understood to arrive at an information base to make adequate planning decisions.

10. Problem solving planning must take place before strategic and operational planning, and long range planning should take place before short range planning.

Because the strategic planning process is relatively new in the educational field, there is a need to study strategic planning techniques within the educational community, to determine what types of planning techniques are being used and what planning techniques influence the effective performance of the organization. The educational community must determine if the strategic planning process is worthwhile; and if there are specific actions or conditions which contribute to the success of the planning system.

Specific Background

This study examined the use of strategic planning techniques in the educational organization, assessed the effectiveness of the strategic planning systems within the organization and explored the dimensions of planning elements contributing to differences in effectiveness between more and less effective systems.

The current investigation was similar to one performed by Ramanujam, V., Venkatraman, N., and Camillus, J. C. (1986). Their study, titled "Multi-Objective Assessment of Effectiveness of Strategic Planning: A Discriminant Analysis Approach" examined the dimensions of planning elements that contribute to differences in effectiveness between more and less effective systems. The Ramanujam study examined seven dimensions of planning and linked those dimensions to three established criteria of effectiveness.

According to Ramanujam, et al., (1986) these three criteria are an indication of whether a planning system is more or less effective. These criteria have the support of literature. They are:

1. The extent of fulfillment of key planning objectives.
2. The economic performance of an organization.
3. An overall measure of satisfaction within the organization.

Criterion I

Fulfillment of Key Planning Objectives

The first criterion examined the extent of fulfillment

of key planning objectives. Six commonly emphasized objectives were used to assess this criterion. They are:

1. Predicting Future Trends - Organizations have become increasingly turbulent, necessitating some formal mechanisms for monitoring and coping with environmental change. Planning should help organizations to delineate probable, plausible, and preferable future states of the world (Amara, 1981). According to Paul, Donavan, & Taylor, (1978) one major problem with planning is the inability of planners to produce reasonably valid forecasts of the future. Predicting future trends is recognized as an important task of planning.

2. Evaluating Alternatives - A good planning system should serve as a vehicle for mind stretching (Camillus, 1975) and delicately balance control and creativity (Shank, Niblock, & Sandalls, 1973).

3. Avoiding Problem Areas - Effective planning systems should be adaptive learning systems. They should increase the probability of achieving goals and minimize the recurrence of errors. The effective planning system should avoid problem areas (Lorange & Vancil, 1977).

4. Enhancing Management Development - Planning systems should improve the quality of management and facilitate management succession. (Hax & Majluf, 1984; Lorange & Vancil, 1977).

5. Improving Short Term Performance & 6. Improving Long Term Performance - Improving short-term and long- term

performance is the major reason for adopting planning systems.

Criterion II

Performance Relative to Competition

Effective planning systems should improve organizational performance in a way which permits organizations to not only achieve their objectives, but to perform at a relatively higher level. The Ramanujam study used four performance indicators: (a) growth in sales, (b) growth in earnings, (c) changes in market share, and (d) return on investment.

Criterion III

Satisfaction with Planning Systems

Satisfaction with planning systems was listed as an additional criterion of effectiveness. This criterion is especially important when planning systems are mandatory. This approach is common in literature concerning implementation of management information systems (Lucas, 1978).

Dimensions

The dimensions of a planning system described in Ramanujam study include:

1. System Capability - The ability of a formal planning system to balance creativity and control; adaptive flexibility of a system and its capability to support strategy formulation and implementation (Ansoff, 1975, 1984; Anthony & Dearden, 1976; Camillus, 1975; Lorange & Vancil, 1977; King & Cleland, 1978; Thompson, 1967).

2. Use of techniques - The degree of emphasis given to

the use of planning techniques to structure ill-defined, messy, strategic problems (Grant & King, 1979, 1982; Hofer & Schendel, 1978; Hax & Majluf, 1984).

3. Attention to Internal Facets - The degree of attention to internal (organizational) factors, past performance, and analysis of strengths and weaknesses (Camillus & Venkatraman, 1984; Grant & King, 1982; King & Cleland, 1978; Lorange & Vancil, 1977; Stevenson, 1976).

4. Attention to External Facets - The level of emphasis given to monitoring environmental trends. (Aguilar, 1965; Fahey & King, 1977; Keegan, 1974; Kefalas & Schoderbek, 1973; Thomas, 1980).

5. Functional Coverage - The extent of coverage given to different functional areas with a view to integrating different functional requirements into a general management perspective. (Hitt, Irland, & Palia, 1982; Hitt, Irland, & Stadter, 1982; Lorange, 1980; Snow & Hrebiniak, 1980).

6. Resources Provided for Planning - The degree of organizational support in the form of number of planners, involvement of top management in planning, etc. (King & Cleland, 1978; Steiner, 1979).

7. Resistance to Planning - The need to anticipate and overcome resistance to planning and to create a favorable climate for effective planning (Steiner, 1979; Steiner & Schollhammer, 1975; Schultz & Slevin, 1976).

The seven dimensions of planning, and the three established criteria of effectiveness used in the Ramanujam

study have extensive literature support. The Ramanujam study was conducted in the business sector, with Fortune 500 companies.

The results of the Ramanujam study suggested that the dimensions of planning that are associated with effectiveness tend to vary depending on the specific criterion of effectiveness. Key planning dimensions were: (a) system capability, (b) resources provided for planning and (c) functional coverage. These dimensions were highly linked to more effectiveness within the business organization. Chart 1 presents a summary of the dimensions.

Methods and Procedures

Research Design

Purpose

The purpose of this study was to examine the use of strategic planning techniques in the educational organization, assess the effectiveness of the strategic planning systems within the organization, and explore the dimensions of planning elements contributing to differences in effectiveness between more and less effective systems.

The present investigation was a partial replication of the Ramanujam study; it was designed to perform a similar investigation within the educational community.

The current study adapted the evaluation of the economic performance of an organization, to include an evaluation of student characteristics and academic achievement within the educational organization.

CHART 1

Dimensions of Planning Systems

Dimensions	Description	Key Supporting Literature
Design elements		
System capability	The ability of a planning system to balance control and creativity; flexibility of a system; ability to support strategy formulation and implementation.	Ansoff (1975, 1984) Anthony & Dearden (1976 Camillus (1975) Lorange & Vancil (1977) King & Cleland (1978) Thompson (1967)
Use of techniques	Degree of emphasis given to planning techniques.	Grant & King (1979, 1982) Hofer & Schendel (1978) Hax & Majluf (1984)
Atten. to internal facets	Degree of attention given to internal factors, past performance, and organizational strengths and weaknesses.	Camillus & Venkatraman Grant & King (1982) King & Cleland (1978) Lorange & Vancil (1977) Stevenson (1976)
Attent. to external facets	Level of emphasis given to examining environmental trends.	Aguilar (1965) Fahey & King (1977) Keegan (1974) Kefalas & Schoderbek (1973) Thomas (1980)

CHART 1

Dimensions of Planning Systems

Dimensions	Description	Key Supporting Literature
Functional coverage	Degree of emphasis given to different functional areas with a view to integrating different functional requirements into a general management perspective.	Hitt, Ireland, & Palia (1982) Hitt, Irland, & Stadter (1982) Lorange (1980) Snow & Hrebiniak (1980)
Organizational context of planning		
Resources provided for planning	Degree of organizational support given in the form of the number of planners, involvement of top management in planning.	King & Cleland (1978) Steiner (1979)
Resistance to planning	The need to anticipate and overcome resistance to planning and to create a favorable climate for effective planning. Slevin	Steiner (1979) Steiner & Schollhammer (1975) Schultz & (1976)

Chart from: Multi-Objective Assessment of Effectiveness of Strategic Planning: A Discriminant Analysis Approach Ramanujam, V., Venkatraman, N., and Camillus, J. C. (1986).

More specifically the Ramanujam study evaluated these economic factors within a business organization:

1. growth in sales
2. growth in earnings
3. change in market share
4. return on investment

The current investigation evaluated these educational factors:

1. Test scores in reading as compared to previous scores within the school or school system.
2. Test scores in math as compared to previous scores within the school system.
3. Test scores in reading as compared to national norms.
4. Test scores in math as compared to national norms.
5. Student attendance rate as compared to previous attendance rate within the school system.
6. Student dropout rate as compared to previous dropout rate within the school system.
7. Percentage of college bound students as compared to previous percentage.

Comparison

In order to gain a clearer understanding of criteria of effectiveness and dimensions of a planning system, the author compared the evaluation of a planning system to the evaluation of a person's level of physical fitness.

For example, we could say that a person is physically fit if he or she meets the following criteria: (a) he or she

is at the correct weight (b) he or she has a healthy heart, mind and body (c) he or she has good muscle tone and a good muscle to fat ratio. If these criteria are present, then he or she is physically fit.

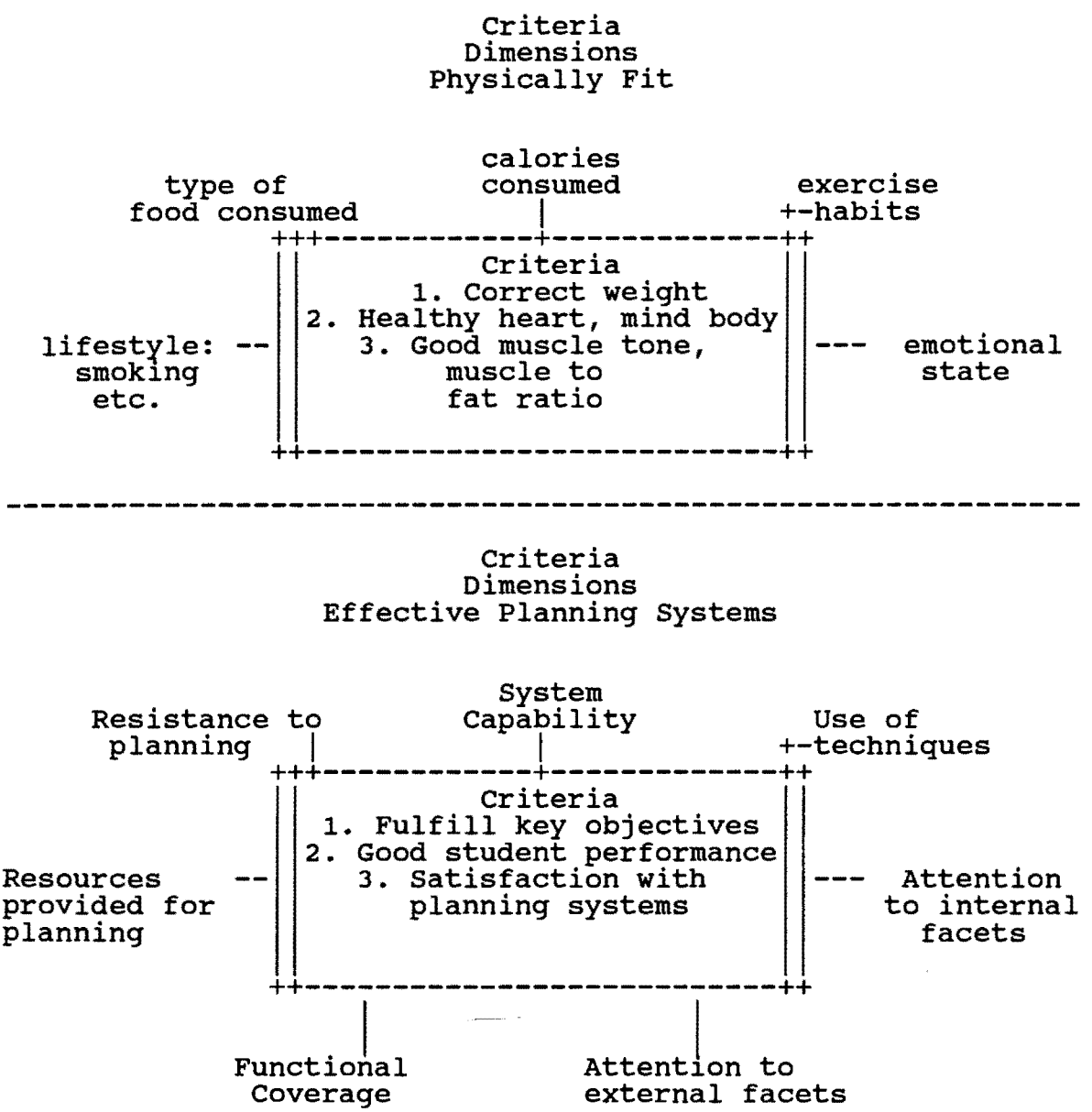
The dimensions would be the many controllable factors that contribute to whether or not that person is physically fit. For example, we would consider the: (a) types of food consumed (b) number of calories consumed (c) exercise habits (d) lifestyle, including smoking, alcohol or drug habits (e) sleep habits (f) emotional state of mind. Whether or not these dimensions are present would have a significant effect on the three criteria which determine whether or not a person is physically fit.

In the same way, the author shows that according to literature, a planning system is effective if these three criteria are present: (a) six key planning objectives are fulfilled (b) there is growth or improvement in educational performance (c) an overall measure of satisfaction is present. In an effective organization, these criteria are present.

The dimensions or factors which contribute to this effectiveness are (a) system capability (b) use of techniques (c) attention to internal facets (d) attention to external facets (e) functional coverage (f) resources provided for planning (g) resistance to planning (measures lack of resistance). Chart 2 presents a comparison of physical fitness and effective planning.

CHART 2

Comparison of a Physically Fit Person
and an Effective Planning System



Research Questions

1. To what extent are educators involved in strategic planning? How many years have they been involved in the process?

2. Are the strategic planning systems in educational organizations effective, according to three established criteria of effectiveness?

3. Is this effectiveness directly related to seven established dimensions of planning which influence effectiveness?

4. How do strategic and non strategic planners compare?

Instrument Development

The instrument was a five point Likert - Scale Questionnaire, titled "Strategic Planning Assessment For Educational Organizations".

The current investigation sought to ensure content validity with the advice and approval of administrators and strategic planning experts.

Several of the questions in the current study were identical to those used in the Ramanujam study, which sought to assure content validity of each dimension by the use of multiple experts (including the authors of the study) and with the use of an iterative procedure for insuring exhaustive coverage of each construct's domain. The use of the multi-item scales was motivated by the aim of enhancing the reliability of measurements (Nunnally, 1978).

Additional items were derived from published definitions

of strategic planning, and from information from the State Report Card developed by the Illinois State Board of Education. Information about standardized reading and math tests were also included. In addition, content validity was reexamined after the instrument was pilot tested among six superintendents in several counties in Illinois. Potential problems with test content and test administration were generated during the pilot test, and changes were made in order to avoid problems in the study.

Sampling Techniques

The population included the 288 district superintendents in Chicago and Chicagoland area. Superintendents in the six county metropolitan area, Cook, DuPage, Lake, McHenry, Kane, and Will counties, were asked to participate in this study.

Data Collection / Methodology

An experimental procedure was conducted to evaluate:

1. the effectiveness of strategic planning systems within educational organizations.

2. seven established dimensions of planning systems which influence effectiveness within educational organizations.

3. the effectiveness of planning systems as statistically compared to seven dimensions of the planning systems.

The data were collected in the following manner: In an attempt to discover to what extent districts in the

Chicago six county metropolitan area are involved in the strategic planning process, questionnaires were sent to all district superintendents within the specified boundaries. Each superintendent was asked:

1. if his/her district is involved in the strategic planning process.

2. if he/she would be willing to complete a brief (15 min.) questionnaire regarding the strategic planning process within their district.

A questionnaire was mailed to 288 potential respondents with a cover letter that briefly described the survey, and estimated the approximate amount of time needed to complete the questionnaire. The letter requested the return of the questionnaire within two weeks; and sought to assure the confidentiality of the survey results. All correspondence included self addressed stamped envelopes to make the process as easy as possible for each participant.

Each questionnaire was coded, so that the writer had a record of questionnaires that had been returned. A follow up letter was sent to those who had not returned the questionnaire after three weeks.

Data Computerization

The Twin Spreadsheet Software System and the S Statistical program language was used to perform statistical functions.

Statistical Analysis

Statistical analysis included:

1. characteristics of respondents.

2. means, standard deviation, and intercorrelations of the seven dimensions of planning systems.

3. means, standard deviations, and intercorrelations of the variables measuring effectiveness of planning systems.

4. discriminant analysis for groupings based on satisfaction.

5. discriminant analysis for groupings based on variables measuring fulfillment of objectives.

6. discriminant analysis for groupings based on performance relative to competition.

7. relative importance rankings of the dimensions of planning in 13 discriminant analyses.

8. a comparison of those who identified themselves as strategic planners with those who plan, but do not use the strategic planning process.

Summary

The Strategic planning process is defined as a process that (a) identifies the purpose of an organization, (b) determines internal and external forces which impact an organization, (c) analyses the forces that these factors have, or will have on the organization; (d) develops strategic plans or strategies to achieve the mission. This process is based on the concept that "visualizing the ideal is an absolute necessity to achieving that condition (Ingram, 1985, p. 15).

Strategic planning is a process that has been successful in the business world, but it is a relatively new process in

the educational community. Before this process can be used effectively in the area of education, the process must be studied, in order to determine: (1) if the strategic planning process is effective in the area of education and (2) what, if any specific actions or conditions make it a successful process.

This study examined the use of the strategic planning process in the educational organization in order to determine:

1. to what extent educators are currently involved in the strategic planning process.

2. if these planning systems are effective.

3. if specified conditions (seven dimensions of planning) are directly related to effectiveness in planning.

4. if there are differences in those who identify themselves as strategic planners and those who identify themselves as nonstrategic planners.

CHAPTER II

LITERATURE REVIEW

Planning is a complex process which attempts to systematize an organization and guide it toward a better, more productive future. It is the way organizations attempt to deal with a changing environment. Planning is an active, creative process for securing a successful future; whereby the organization attempts to redirect and refocus its goals. The process is intended to help increase the level of performance within the organization, while preparing a set of decisions which will delineate and guide actions to be carried out in the future.

The literature review section of this study presents a description of effectiveness in planning, and explains the history of planning systems. In addition, it defines future planning, and strategy. This section also describes current futuring techniques and discusses the strategic planning process.

According to Knezevich (1984) planning should be (a) future oriented (b) goal oriented (c) based on rational and verifiable procedures and data and (d) related to performance enhancements and goal achievement by optimal means.

Effective plans are functional and realistic. They do not reflect the delusive expectations of the planners, nor the emotional expressions of hopes for the best. Planning for the sake of planning is not a viable or justifiable option.

The planning process is closely related to the management of change. It is a process which attempts to ensure a successful procedure for significant modification within the goals and operations of the organization.

Planning is vital in the management of an organization because it is basic to the other crucial management functions and must be done at all administrative levels. The best measure of the quality of a plan is evident during the implementation stage. At this point, whether or not plans are bringing about desired results becomes apparent.

Some writers closely relate planning and decision making because the steps in the decision making process and in planning are similar. Others acknowledge planning as the preparation phase of the decision making process. Planning precedes and helps determine the optimal decisions to be made.

Knezevich (1984) defined planning as "any set of formal and rational activities that seek to anticipate conditions, directions, and challenges at some future point in time for the purposes of enhancing the readiness of personnel and the organization to perform more effectively, and to attain relevant objectives by optimal means" (p. 97).

Although The American College Dictionary (1966) defined planning as "to draw or make a plan of 'a building etc.'" (p. 926), planning should be less concerned with the process and more concerned with the identification of the outcomes or goals to be pursued by the organization. Determining the

direction of the organization is a major goal of the planning process. "A plan is conceptualized as a predetermined strategy, detailed scheme, or program of action related to the accomplishment of an objective" (Knezevich, (1984, p. 85). It is a mental activity used for the purpose of developing a method or strategy for achieving a goal.

Effectiveness in Planning

Assessing the effectiveness of a planning system is a difficult process because a plan cannot be truly evaluated until it has been carried out (Greenley, 1983). Assessment of planning effectiveness can be determined after a plan has been implemented, but it cannot be used to ameliorate action which has already been carried out. If effectiveness is assessed during the planning stage (before execution) the assessment becomes a "subjective estimation of likely performance" (Greenley, 1983, p. 1). Generally, assessing planning effectiveness has been an evaluation of success of the achievement of the goals or objectives of the plan.

Knezevich (1984) recognized the need for educational administrators to develop and sharpen their planning skills. There is a need for top administrators to be able to differentiate between excellent and poorly conceptualized plans, and have the skills necessary to develop superb plans. Knezevich (1984) stated "The higher one moves up the administrative hierarchy, the more emphasis and the higher priority are granted in the administrators time schedule", thus making planning techniques a highly desirable and needed

skill for educational administrators (p. 97).

Fayol (1959) cited four major characteristics of an effective plan:

1. Unity - There should be no more than one plan for any organizational dimension to be approved and implemented at one time.

2. Continuity - The planning process is a continuous, ongoing process. There is no "end" to the planning process.

3. Flexibility - Plans should be flexible, allowing for modifications as unforeseen circumstances arise.

4. Precision - Vague, ambiguous plans must be revised to assure accuracy and clarity of all elements.

The planning process should also tap the talents and capabilities of the personnel within the organization. Top management is responsible for the important task of "matching organizational competencies with opportunities and risks created by environmental change in ways that will be both effective and efficient over the time such resources will be deployed" (Lorange, 1979 p. 92).

According to Hofer, (1973) upon analyzing major firms, the establishments with the highest degree of planning effectiveness were those that changed both their scope and distinctive competencies. The 2nd most successful were those that changed only their distinctive competencies. Third, were those firms that changed only their scope. The least successful firms were those made no changes (Lorange, 1979, p. 93).

History - Evolution of Planning

Planning has evolved from a simple to a more comprehensive process. Hax & Majluf (1984) recognized five major stages in the evolution of planning. They were:

1. budget and financial control
2. long range planning
3. business strategic planning
4. corporate strategic planning
5. strategic management

Stage I

Budgeting and Financial Control

The 1930's brought about the earliest stage in the evolution of the strategic planning process in the corporate world. The budgeting and financial control stage is a process that presented projections of costs and revenues covering a one year period. All important activities within an organization were monitored with a master budget.

The major goal of the budgeting stage was to prevent "undue concern for short term profitability at the expense of the long term development of the firm" (Hax & Majluf, 1984, p. 8).

The budgets were developed with the use of estimated figures derived from standards of performance. These figures were based upon historical observations drawn from internal data and external data.

The purpose of this administrative system was to achieve higher operational efficiency, and to promote better

use of financial resources. Budgeting and financial control evolved as a result of excessive concern with short term profits. Companies neglected the overall long term success of the organization by focusing on short term profits.

Stage II

Long Range Planning

The second stage, Long Range Planning, was introduced in the 1950's. This was a comprehensive effort toward developing or defining programs, goals, objectives and budgets for a time period of many years. In the Long Range Planning process, there was an attempt to project the coming trends and to plan the organizational goals and objectives with those trends in mind. Organizations considered current trends before developing plans that guided the future of the organization. The major focus of this stage was the development of multi-year forecasts of firm sales. All other organizational functions viz., manufacturing, marketing, personnel were developed to enhance the achievement of the forecasts.

Many firms adopted long range planning in an attempt to more effectively manage the extraordinary financial growth triggered during the post World War II period. In an attempt to respond to this unprecedented growth, it was not enough for American firms to rely on one year budgetary projections. "To meet the required expansions of capacity and to find the corresponding financial resources, it became

necessary to extend this planning horizon" (Hax & Majluf, 1984, p. 10).

This process was adequate for that time period. Hax & Majluf (1984) stated "Long range planning makes sense under the conditions that prevailed after W. W. II; that is, high market growth, fairly predictable trends, firms with essentially a single dominant business, and relatively low degree of rivalry among competitors" (p. 11).

The long range planning method assumed that the future would have been a continuation of the past. It did not take change into account. Long range planners did not predict change, nor did they promote differing strategies from those carried out in the past.

Stage III

Business Strategic Planning

The 1960's brought about a change in the economic structure of the United States. Economic growth was minimal, and competition among companies increased. Businesses became more complex, increasing in size and scope. This phenomena led to businesses being broken down into smaller, more manageable units called Strategic Business Units or SBU's. "The SBU's were initially designed so as to assure organizational integrity, while permitting the SBU general manager to carry out the business strategy effectively and competitively without affecting the strategies of other SBU's within the firm" (Hax & Majluf, 1984, p. 15).

In business strategic planning, the expression of the

business purpose, as well as the required degree of excellence to assume a position of competitive leadership, was the essential first step toward the formulation of the business strategy. This expression of purpose was referred to as the mission statement of the business.

Stage IV

Corporate Strategic Planning

The 1960's and 1970's marked a major change in the socio-political environment in America (Hax & Majluf, 1984). Energy and environmental problems were primary societal concerns. There was a shift from the trend toward decentralization and of autonomous business units, and a shift toward sharing of resources such as manufacturing facilities, distribution networks, common sales forces, and centralized purchasing.

In the corporate strategic planning process, the decisions of a company determined the purposes, objectives, and goals of that company and produced the principal policies and plans for achieving those goals. This process defined the range of businesses the company pursued, and described the organization in economic and human terms. The plan further described the nature of the economic and noneconomic contributions it made to its shareholders, employees, customers, and communities. This strategic plan defined the businesses in which a company would compete, and focused resources in order to develop competitive advantages.

Stage V

Strategic Management

Although strategic planning is the major focus of this study, it is not the final process in administrative functioning. In order to be effective, planning must lead to carefully integrated administrative techniques, which integrate all major functions of the organization. It should promote strategic thinking. Strategic planning is the key process to properly define critical processes of the organization, but it is not the only factor leading administrators to better, more efficient organizations.

Strategic management is a process of integrating strategic planning with the operational system of the organization. The planning becomes integrated with the other significant administrative functions of the organization. Strategic management requires careful follow up and close monitoring in order to achieve success. Strategic planning systems should include specific directions for monitoring, analyzing and controlling the implementation process.

Today strategic management is thought of as a way of managing a company whereby the overall strategy and purposes of the firm dominate decision making at all levels of the company. "No longer is it sufficient for the chief executive alone to have a sense of where the company is headed" (Hamermesh, 1983, pg. 3).

Future Planning

Steiner (1969) stated "Planning is not forecasting, but

forecasts are essential in planning" (p. 17). In the act of planning, administrators and instructors must be cognizant of the fact that students are preparing for a world unlike the one in which we live and we can no longer base future plans on past realities. Knowing this, educational leaders must plan with the thought of preparing their students for a probable and preferable future world. It is practically impossible to make any rational, justifiable plans without some image of the future. Plans within the organizational setting are preparations for a healthy, vital and effective future.

"Planning is not making future decisions but it is concerned with making current decisions in light of their futurity" (Knezevich, 1984, p. 90).

"Todays futurists for the most part, lay no claim to the ability to predict" (Toffler, 1972, p. 4). They are not concerned with making statements which predict with any certainty what will happen; instead they concentrate on the alternatives available to decision makers, stressing that "the future is fluid, not fixed or frozen" (Toffler, 1972, p. 4). Current futurists focus not only on possible or probable futures, their primary concern is defining, describing, and determining events and conditions that will effect an organization and its personnel. Included in this text are a number of popular futuring techniques.

Futuring Techniques

Educational organizations have generally neglected the

adoption of a systematic plan for studying and planning the future, despite the fact that dozens of futuring techniques and methods of forecasting have been developed. The Literature Review section of this study examined several of the more popular or common futuring techniques which are available and currently being used in many parts of society. Joseph (1974) identified three fundamental approaches to forecasting:

1. The first approach, named the "Exploratory Forecasting" approach is used to anticipate what is likely to happen. This approach emphasizes trends and possible opportunities or problems related to the future (Heathers, Roberts, & Weinberger, 1977).

2. The predominant activities of Normative Forecasting techniques are to discover, set norms, and invent desired alternatives for the future. This approach is used to propose what will need to be done in order to achieve some desired future goal. For example, in predicting an individual's life span a medical doctor can use one of two approaches. An "exploratory indicative" comment might be, "if you don't lose weight, you'll be dead before you're 60". The normative approach to the same problem could be: You'll increase your chances of living beyond 70 years if you lose weight and exercise regularly. The normative approach describes the steps necessary to achieve the desired goal.

3. Joseph (1974) described the Forecasting through the Modeling / Simulation approach. This involves gaining

an understanding of the structure of the future by analyzing natural laws (physical, social, and environmental) and assessing their impact.

The futuring techniques examined in this study include: (a) the futuring process, (b) brainstorming, (c) a Delphi survey of perceived possibilities, (d) trend extrapolation, (e) trend impact analysis, (f) contextual map forecasting, (g) force analysis, (h) technology assessment, (i) simulation / gaming, (j) multi-factor forecasting, (k) relevance trees, (l) futures wheels, (m) cross impact matrices, (n) scenarios, and (o) strategic planning.

The Futuring Process

Wagschal and graduate students at the University of Massachusetts, in conjunction with Phi Delta Kappa, (1984) developed the Futuring Process as a tool for the examination of alternative futures.

The futuring process is based on the premise that no expert opinion is valuable if it has little or no popular support; it relies on a series of diverging and converging futuring techniques which alternately expand and focus the participants thoughts. This process eventually results in a scenario, which is a written conceptual image of a future trend. The process of developing a scenario brings about a clearer understanding of the complex relationships among events. It is advisable to include parents, teachers, administrators, staff, students, community and business leaders in the futuring process. This technique is most

effective when there is a diversity of opinion from which to draw.

The Wagschal process allows planners to examine the desirability of possible trends and to assess the probability or possibility of the occurrence of forecasted events. It then blends the opinions of all participants into a workable package or solution which all participants agree upon.

The futuring process incorporates five established futuring techniques: (a) Brainstorming, (b) the Delphi Technique, (c) Futures Wheels, (d) Cross Impact Matrices, and (e) Scenarios. These techniques are described within this text.

Brainstorming

Brainstorming is a method for generating ideas or lists of trends. This group activity is the first step in the Wagschal futuring process. The participants are encouraged to create a list of societal or educational trends, or to generate solutions to a problem which could affect the future of education. Each participant is encouraged to generate as many ideas as possible within a specified time period. One or two people record the ideas as they are generated. The brainstorming process is a method which "encourages building on previous ideas and stretching the mind to include the bizarre" (Phi Delta Kappa, 1984, p. 3). Quantity of ideas or thoughts, and not quality, is emphasized at this stage, and all ideas are accepted whether they appear to be practical or not, in order to encourage creativity. This stage is free of

inhibition, judgement and evaluation.

The Delphi Survey

The Delphi Survey, which is the second stage of the Wagschal Futuring process, was designed to identify the trends which are perceived by the public to be the most probable, most desirable, and the most important. The process collects opinions, and establishes consensus among the participants about future probabilities. The survey was originally developed by Olaf Helmer and colleagues of the Rand Corporation. The Delphi Survey is probably the most widely used technique for future policy research. "It is based on the premise that many heads are better than one - or as Carl Sandburg phrased it: `Everybody is smarter than anybody'" (Heathers, et al., 1977, p. 1-2-25). The Survey is mailed to each participant. It is performed in several rounds, usually three, each including the same questions. Participants are asked to "respond to each item by forecasting the probable date, the desirability, and sometimes the probability of each event" (Heathers, et al., 1977, p. 1-2-27). The Wagschal format asked participants to assess the importance of each event.

Upon the receipt of the 1st round responses, the forecaster tabulates the results, and records the averages on the Round 2 copy of the survey.

After each round, the participants are given information about how the others responded. This allows for "cross fertilization" of thinking (Phi Delta Kappa, 1984). They

receive copies of the responses of each participant after each round. Participants are then encouraged to revise and explain their responses after each round. The goal of each stage is to achieve greater consensus than in the previous stage. The forecaster tabulates and averages the responses after each round.

Three main characteristics of the Delphi Survey are:

1. Each participant contributes to the topic before seeing the input of the others.

2. the input of the participants is anonymous.

3. There are a series of investigations; all previous inputs are shared as part of the next input.

It is important to include people with as many different viewpoints as possible when conducting the survey. The survey by Phi Delta Kappa and Wagschal (1984) was mailed to a group of 1,200 educators, futurists, and business people, with a 25% rate of return. The items were rated by probability, desirability and importance. Of the 30 trends included on the survey, six trends were selected for future study.

The design of the Delphi survey: (a) identifies the topic of research, (b) identifies the respondents - including experts in the field as well as participants from other areas, (c) includes a literature review which covers research on the topic and related recent developments, (d) includes the Delphi Survey questions, to be used in each round.

The questioning technique used in the Delphi survey

follows certain guidelines:

1. Phrasing is consistent. Either statements or questions should be used, but not both.

2. Questions and directions are clear and concise, not ambiguous or vague.

3. Double questions are avoided. (e.g., When will A and B happen)?

4. Assumptions and leading questions are avoided.

5. The questionnaire is brief.

6. The questionnaire allows for a range of possible responses.

The Futures Wheel

The Futures Wheel is a technique which generates the most probable consequences of a trend. The technique was introduced by Cindy Guy and Jerry Glenn in a 1976 issue of "The Futurist". Heathers et al. (1977) defined it as: "an intuitive study of needs and consequences likely to develop from a given forecast" (P. 1-2-10). Phi Delta Kappa (1984) described the Futures Wheel, which is the third stage of the Wagschal method, as the "heart of the futuring process" (p. 4). Each immediate consequence generates several more likely consequences. The process is repeated in at least four stages. The futures wheel amplifies the full ramifications of the trends; and unanimous agreement is required before a consequence can be included. Every participant should agree that the completed futures wheel has only likely consequences. The discussion should be minimized

so the process is not too long. In this process:

1. "The forecaster notes the development to be studied and circles the statement, thus forming the hub of the wheel" (Heathers et al., 1977, p. 1-2-10).

2. "As needs and consequences come to mind, the forecaster records them in satellite circles on spokes from the hub" (Heathers et al., 1977, p. 1-2-10).

3. "Statements in the satellite circles in turn suggest further needs and consequences which are noted" (Heathers et al., 1977, p. 1-2-10).

Cross Impact Matrices

The Cross Impact Matrix helps identify consequences which tend to cancel each other out, and consequences that are reinforced by others. This is the fourth step in the Wagschal futuring process. The process is defined as "an experimental approach by which the probability of each item in a forecasted set can be adjusted in view of judgements relating to potential interactions of the forecasted items" (Heathers, et al., 1977, p. 1-2-7). Theodore J. Gordon pioneered the use of this technique. Cross Impact Matrices were "originally designed to determine the probability of an interacting set of forecasts, cross impact analysis has also been used to determine positive and / or negative impact of related developments, and to increase the depth of understanding of interactive relationships" (Heathers, et al., 1977, p. 1-2-7).

Current futurists now perform the technique using

sophisticated computer programs. Each consequence is set up in a matrix against other elements in a futures wheel. The participants are asked to determine if the trend on the vertical axis occurs if it will make the trend on the horizontal axis more likely to happen, (+) or less likely to happen (-). If the participants are uncertain a (0) is marked. For example, Trend 1. Automobile technology is becoming computerized. Trend 2. Automobiles are becoming more expensive. Will computerized technology affect the price of automobiles and make them more expensive? Will the expense of automobiles determine whether or not they will become increasingly computerized? Forecasts based on cross impact analysis are based on intuition, but they are considered useful because of the consideration of interacting forces.

Scenarios

The fifth step in the Wagschal process is performed upon completion of the cross impact matrix. The elements of the future wheels synthesizes seemingly unconnected consequences into a written conceptual image or a scenario which describe a central trend. Herman Kahn is considered to be a leader in scenario writing. His book "The Year 2000" discussed the advantages and usefulness of this tool. Scenarios are written in the present or past tense.

The process of writing the scenario encourages the participants to analyze, and compare trends. The participants then identify internal consistencies and inconsistencies, and

connect the future scenario to the present in some way. The process shows "how to get there from here" (Phi Delta Kappa, 1984, p. 6).

According to Heathers, et al. (1977) scenarios typically follow certain guidelines. They: (a) specify the forecast date, (b) identify the focus or main subject, (c) identify related subjects or issues, (d) present relevant information, especially that which identifies probable innovations, (e) assume a no - change, surprise free future is least likely, and (f) reveal imaginative considerations of alternatives.

Trend Extrapolation

"The most common way of viewing the future is to project that current trends will continue" (Heathers, et al., 1977, p. 1-2-3). Trend Extrapolation is a technique which is used for projecting the magnitude of a present trend into the future. It examines the history of a topic and estimates how the trend will continue in the future. Trend extrapolation generally examines statistical trends; social trends are generally difficult to forecast. Using this method, a variable is plotted graphically over time creating a curve, which can then be extended into the future. The advantage of trend extrapolation is that it is simple, inexpensive, and easily understood. It is displayed graphically and is often very close to being right. It is a good tool for identifying problems or issues that require attention. Most current social and educational problems have been evident for some time. The disadvantage of trend extrapolation is that it

operates on the basic assumption that the same factors that operated in the past will continue to shape the future. This method is risky because it does not provide for changes in trends or values.

Trend Impact Analysis

Trend Impact Analysis is a continuation of the trend extrapolation process. Its purpose is to identify, determine and evaluate the probability that certain events could have an impact on any particular trend. In this method, a group of researchers generate a list of possible, significant events that could affect a trend. The team of researchers list estimates of the probability, time frames, and degree of impact on the trend of events. These events are stated in positive or negative percentages; and the estimated information is then entered on a computer. After the probabilities, impacts and estimates of time have been calculated, a computer simulation of the probable impact on the trend of each event is created. The process results in a newly extrapolated mean curve. The advantage of trend impact analysis is that it is designed to reduce surprise by forecasting the effects of multiple influences upon a trend with regard to the future. The computerized projection is then tested and revised. The disadvantage of trend impact analysis is that the results are based on the subjective judgements of the researchers who use the technique; and the entire process, even with the use of a computer, is time consuming.

Exponential Growth

Exponential growth recognizes the fact that all trends do not progress at a steady rate. Many trends have an accelerated rate of change. This process takes the accelerated rate into account. For example, as computers become a more common and vital part of society, the rate of sale can probably be expected to grow. This can eventually be proven or disproved with the use of statistics.

Force Analysis

Force analysis is a method used to identify and assess the future impact of trends which are likely to cause institutional change. In this method a forecasting team selects a specific topic. Knowledgeable persons who are not a part of the forecasting team are asked to identify forces related to the topic. The forecasting team then selects a number of these forces to be projected into the future and writes descriptions of the forces that include the past nature of the topic and its previous problems and influences.

Force analysis is beneficial because it is both simple to perform and practical, and easy for beginners to learn. This method is also useful for considering short range goals or futures, and helping the participant to gain a better understanding of the forces and factors that can influence the future. Its limitations occur with the subjective insights of the participants. The descriptions of the future will only be as good as the insights of the participants.

Technology Assessment

A Technology Assessment is a technique in which forecasting teams plan, anticipate, and analyze the potential impacts of new technologies in society. With this method, the forecasting team first identifies and describes the technology to be assessed. Next, they determine the probable future conditions of society and assess how technological advances might be manifested in that society. Third, the impact areas of society and the affected parties such as segments of society, population groups, institutions, etc., are identified. After these determinations have been made, the participants evaluate the impacts according to probability, direction, magnitude, and duration. The participants then identify the policy options and decision makers that could affect the impact of a technology on society. This technique emphasizes the relationships between social change and technological development. Its approach is interdisciplinary and can therefore be used in conjunction with other futuring techniques. This technique can be used to make assessments of the impact of technology on single communities, institutions, or for more global assessments.

Technology assessments are limited because the results of this technique are entirely dependant on the assumptions of the forecasting team.

Relevance Tree & Contextual Map Forecasting

Relevance Tree and Contextual Map Forecasting techniques enable forecasting participants to describe alternative

pathways of reaching or achieving desired future goals and avoiding undesirable goals. These techniques generate trees and maps which show graphically a logical sequence of events together with their interrelatedness. In this method, participants identify a goal and describe logical sequential steps to outline possible procedures for attaining the goal. Second, the steps are placed on a relevance tree or a contextual map to show the relationships graphically.

The advantage of these techniques is that they assist participants in developing plans for reaching future desired goals. These methods give participants a sense of control over future happenings. "The participants can identify precursory events and deduce short range actions, decisions, and implications from long-range goals. The use of these techniques can also highlight the relevance of multiple forecasts, as well as identify resources that can be used in reaching a desired goal" (Phi Delta Kappa, 1984, p. 24).

The disadvantage of this technique is that it can be used to manipulate approaches, resources, and decisions to reach a biased desired goal; and those using this technique often concentrate on existing possibilities, rather than future goals.

Simulation / Gaming

This process involves computer simulated events of situations that provide an analyses of alternative futures and their possible impacts. In this method a replica of the operation of a system such as the energy industry or the

national economy is described mathematically, and programed into a computer. This method of simulation can compress a years worth of data in seconds. It can also allow for gaming which is a risk free experimentation with variables. The simulation process is time consuming and costly.

Strategy

In the book "Strategic Management", by Harvard Business Review, Hamermesh (1983) defined strategy as "the pattern of objectives, purposes, or goals and major policies and plans for achieving those goals, stated in such a way as to define what business the company is in or is to be in and the kind of company it is, or is to be.

Strategy entails two equally important tasks, strategy formulation and strategy implementation. The formulation of strategy requires the general manager to create a fit among:

1. the opportunities in the external industry environment.
2. the strengths and weaknesses of a firm.
3. the personal values of key implementers and
4. the broader societal expectations of the firm" (p. 1-2).

Haller (1983) conveyed the definition of strategy given in Dr. Hofer's book "Strategy Formulation: Analytical Concepts: "Strategy is the fundamental pattern of present and planned resource deployments and environmental interactions that indicates how the organization will achieve its objectives" (p. 7).

"Significantly, it (strategy) has less to do with doing things right than with doing the right thing, as Peter Drucker has pointed out many times. There is a big difference" (Haller, 1983, p. 6).

Haller (1983) defined "street strategy" as "the kind of strategy lightweights can talk about extemporaneously- with no preparation, with only a passing knowledge of the situation and with a heavy sprinkling of platitudes" (p. 4).

He further defined Gourmet Strategy as "the kind of thing you would have to think about for a while; the qualitative difference would be similar to comparing the economic insights offered on Saturday Night Live with those on William Buckley's Firing Line (Haller, 1983, p. 5).

Haller believes that no amount of fancy execution will keep you out of trouble without good strategies.

Strategic Planning

The strategic planning process: (a) identifies the purpose of an organization, (b) determines internal and external factors which impact the organization, (c) analyses the impact of these factors, (d) develops strategic plans to achieve the goals, and (e) institutes action plans to carry out those strategies and achieve the mission.

The strategic planning process begins with a vision of what the organization should be, not an assessment of where the organization is currently. This management style allows the members of the organization to be productive, important parts of the organization.

Strategic planning is based on the concept that "visualizing the ideal is an absolute necessity to achieving that condition. It reverses the typical needs assessment analysis of comparing existing conditions against desired condition" (Ingram, 1985, p. 15).

Strategic Planning focuses on the desired condition of the organization as it diminishes the importance of existing conditions. It emphasizes the forces outside the organization that can be used to achieve success once recognized and understood.

This planning process can be compared to the scientific approach of stating a hypothesis and determining which alternatives work and which do not.

Outside forces, and collected information are studied and analyzed to shape a desired future and achieve desired outcomes. For example: a person desiring to become a certified public accountant must first apply to a university, take prerequisite courses, take required exams before being accepted into a program. After being accepted, the student must successfully complete all required courses and exams before taking the CPA exam. After successfully completing the exam after one, two, or more attempts, the student finally earns the title of certified public accountant. This goal is reached only after successful planning, taking specific steps toward the goal, and completion of those steps.

Strategic Planning serves as a link between an

organization and the environment. It ensures that the organizations activities and objectives are consistent with the goals and plans of the organization. Strategic Planning helps to integrate the activities necessary for establishing and achieving goals in a coordinated manner.

Educators must also learn to visualize the desired school or school wide system, and identify the educational, social, political, and economic forces which effect the system. They must then take steps toward establishing a plan which will achieve the goals.

In strategic planning the best results are achieved when using a top - down / bottom - up approach in developing the strategies, instead of allowing all planning to be done by top management or planning specialists.

"School boards, superintendents and top management need to set the broad strategic and operational goals with middle management advising at the operational level. Middle management then needs to have the opportunity to develop with their staffs the means for achieving those goals" (Ingram, 1985, p. 16).

The action plan (objectives / activities) should be developed by those responsible for implementing the plan. The goal of strategic planning is to train educators or others to think and plan in a manner similar to coaches, generals or business people. It is a process to help educators become cognizant of the desired outcomes of the educational process, and the process necessary to achieve those desired goals.

"Strategic planning is a survival skill for educational leaders. It should dominate the time and attention of school board members, superintendents and top managers in every school district" (Ingram, 1985, p. 16).

A study of corporations which have implemented strategic planning was performed by Business Week. The study examined the problems which have surfaced over the last ten years and discussed the reasons for many unsuccessful attempts at strategic planning. The problems included:

1. Planners who were responsible for designing strategies were unable to implement them. The planners were not the managers who were responsible for the implementation. Plans were made, but never implemented.

2. Top level management was not involved in the planning process in a meaningful way. Plans that were handed down were not realistic or useful. Managers had no vested interest in the plans and did not implement them.

3. Planners and managers feuded. Planners were there to design the plans and managers were there to follow their instructions and do their bidding.

4. The strategic planning process grew away from the external world of competitors and customers. The article quotes: "The notion that an effective strategy can be constructed by someone in an ivory tower is totally bankrupt" (Business Week, 1984, p. 64).

5. Strategic plans became too voluminous. It seemed that employees prepared their business plans as a matter of

routine, instead of designing plans for the betterment of the corporation.

6. "Companies felt that strategic planners disrupt a companies ability to assess the outside world and to create strategies for a sustainable competitive advantage" (Business Week, 1984, p. 64).

7. There was a danger of internal focus. Corporations did not consider what was happening in other companies. This became the downfall of some company plans.

There is also a problem with understanding the difference between strategy, planning and implementation. The original purpose of the strategic planning process became lost. General Electric Chairman Welch believed that the problem in the strategic planning process was the difference between being externally or internally focused. He believed making sure that managers understand the difference is an important part of the strategic process.

Welch explained strategy as "trying to understand where you sit today in todays world. Not where you wish you were and where you hoped you would be, but where you are. And it's trying to understand where you want to be in 1990. It's assessing with everything in your head the competitive changes, the market changes that you can capitalize on or ward off to go from here to there. Its assessing the realistic chances of getting from here to there" (Business Week, 1984).

Welch explained that a strategy can be summarized in a page or two. "It is different from plan appropriation requests, building a plant, developing a product, ... that's implementation of a strategy of where you want to be". (Business Week, 1984, p. 66).

General Electric and other companies made changes as a result of the problems and failures that resulted from strategic planning:

1. Companies cut down on the number of strategic planners. For example groups of 50 were cut down to 25.

2. A greater emphasis was placed on implementation.

3. Companies made managers an integral part of the planning team. The managers were the ones responsible for implementing the plans.

4. Companies looked for managers who were "Strategic Thinkers."

5. Companies tried to anticipate what their competitors would do.

6. General Electric, Westinghouse, and other companies discouraged ridged and lengthy strategic planning structures and instructions and replaced them with five to six written pages.

7. Strategic planners and consultants became training managers and assumed strategic planning duties.

Strategic planning is not operational or tactical planning. The major focus is not on day to day accomplishments or scheduling. Strategic Planning is a

process that involves making strategic decisions about the major focus or plan of the organization.

Those who plan strategically must be cognizant of:

1. outside factors which can and do effect the organization, with the realization that these elements should be incorporated into the planning process.

2. the time period for which they are planning.

3. the fact that strategic planning involves decisions that commit vast amounts of the organizations efforts.

The Strategic Plan defines where the organization should be going in the long run - as well as defining short term goals. It decides what programs and services should be the major focus of the organization, and determines what changes should be made in future challenges. These plans focus on the system as a whole - emphasizing all goals and objectives which are used in an attempt to satisfy the ultimate strategic plan.

A study, titled "Multi-Objective Assessment of Effectiveness of Strategic Planning: A Discriminant Analysis Approach" conducted by Ramanujam, V., Venkatraman, N., & Camillus, J. C. (1986) examined the dimensions of planning elements that contribute to differences in effectiveness between more and less effective planning systems. The Ramanujam study examined seven dimensions of planning and linked these dimensions to three established criteria of planning effectiveness.

According to Ramanujam, Venkatraman & Camillus, (1986)

the stated three criteria are an indication of whether a planning system is more or less effective. These criteria have the support of literature, and include:

1. the extent of fulfillment of key planning objectives.

2. the economic performance of an organization.

3. an overall measure of satisfaction within the organization.

Criteria I

Fulfillment of Key Objectives

Criteria I examines the extent of fulfillment of key planning objectives. Six commonly emphasized objectives were used to assess this criteria. They were:

1. Predicting Future Trends - Organizations are becoming increasingly turbulent, necessitating some formal mechanisms for monitoring and coping with environmental change. Planning helps organizations to delineate probable, plausible, and preferable future states of the world (Amara, 1981). According to Paul, Donavan, & Taylor, (1978) a major problem with planning is the inability of planners to produce reasonably valid forecasts of the future. Predicting future trends is recognized as an important task of planning.

2. Evaluating Alternatives - Good planning systems serve as a vehicle for mind stretching (Camillus, 1975) and delicately balance control and creativity (Shank, Niblock, & Sandalls, 1973).

3. Avoiding Problem Areas - Effective planning systems are adaptive learning systems. They increase the probability

of achieving goals and minimize the recurrence of errors. The effective planning system should avoid problem areas (Lorange & Vancil, 1977).

4. Enhancing Management Development - Effective planning systems should improve the quality of management and facilitate management succession. (Hax & Majluf, 1984; Lorange & Vancil, 1977).

5. Improving Short Term Performance & 6. Improving Long Term Performance - The improvement of short-term and long-term performance is the major reason for adopting planning systems.

Criteria II

Performance Relative to Competition

Effective planning systems should improve organizational performance in ways which permit organizations to not only achieve their objectives, but to perform at a relatively higher level. The Ramanujam study used four performance indicators: (a) growth in sales, (b) growth in earnings, (c) changes in market share, and (d) return on investment.

Criteria III

Satisfaction with Planning Systems

Satisfaction with planning systems was an additional criteria of effectiveness. This criteria is especially important with mandatory planning systems. This approach is common in literature concerning implementation of management information systems (Lucas, 1978).

Dimensions

The dimensions of a planning system described in Ramanujam study include:

1. System Capability - System capability is the ability of a formal planning system to balance creativity and control; adaptive flexibility of a system and its capability to support strategy formulation and implementation (Ansoff, 1975, 1984; Anthony & Dearden, 1976; Camillus, 1975; Lorange & Vancil, 1977; King & Cleland, 1978; Thompson, 1967).

2. Use of techniques - This refers to degree of emphasis given to the use of planning techniques to structure ill-defined, messy, strategic problems (Grant & King, 1979, 1982; Hofer & Schendel, 1978; Hax & Majluf, 1984).

3. Attention to Internal Facets - This dimension refers to the degree of attention to internal (organizational) factors, past performance, and analysis of strengths and weaknesses (Camillus & Venkatraman, 1984; Grant & King, 1982; King & Cleland, 1978; Lorange & Vancil, 1977; Stevenson. 1976).

4. Attention to External Facets - This refers to the level of emphasis given to monitoring environmental trends (Aguilar, 1965; Fahey & King, 1977; Keegan, 1974; Kefalas & Schoderbek, 1973; Thomas, 1980).

5. Functional Coverage - Functional coverage is the extent of coverage given to different functional areas with a view to integrating different functional requirements into a general management perspective (Hitt, Irland, & Palia, 1982;

Hitt, Irland, & Stadter, 1982; Lorange, 1980; Snow & Hrebiniak, 1980).

6. Resources Provided for Planning - This dimension deals with the degree of organizational support in the form of number of planners, involvement of top management in planning, etc. (King & Cleland, 1978; Steiner, 1979).

7. Resistance to Planning - This refers to the need to anticipate and overcome resistance to planning and to create a favorable climate for effective planning. (Steiner, 1979; Steiner & Schollhammer, 1975; Schultz & Slevin, 1976).

The seven dimensions of planning, and the three criteria of effectiveness used in the Ramanujam study have extensive literature support. The Ramanujam study was conducted in the business sector, with Fortune 500 companies.

The Ramanujam study evaluated four economic factors within business organizations: (a) growth in sales (b) growth in earnings (c) change in market share and (d) return on investment.

The results of the Ramanujam study suggest that the dimensions of planning that are associated with effectiveness tend to vary depending on the specific criterion of effectiveness. Key planning dimensions, were: (a) system capability, (b) resources provided for planning and (c) functional coverage. These dimensions were highly linked to more effectiveness within the business organization.

Further examining the relationship between planning and organizational performance, a study titled "Planning System

Characteristics and Planning Effectiveness" by two of the three authors of the aforementioned study, Ramanujam & Venkatraman, (1987) adapted the study "Multi-Objective Assessment of Effectiveness of Strategic Planning: a Discriminant Analysis Approach" (1986) slightly. This study examined the multivariate relationship between six instead of seven characteristics of planning systems and three different criteria of planning effectiveness.

In this study system capability was categorized as a criteria of effectiveness instead of a dimension of a planning system as it was in the original study. A measure of satisfaction within the organization was dropped as one of the three criteria of planning effectiveness.

The authors explained that their purpose was to redirect planning systems research by addressing the limitations of previous research which included:

1. Research that viewed planning in terms of dichotomous classifications such as planner vs. non planner or formal planner vs. informal planner.

2. Research which dealt almost exclusively with the financial benefits of planning.

3. Research that was performed without adequate analytical schema or statistical methods for examining the interrelationship between planning system characteristics and planning effectiveness.

The study asked "What characteristics of a planning system are central for planning effectiveness, with

effectiveness being construed in a much broader sense than it has been so far?" (Ramanujam & Venkatraman, 1987, p. 454).

The data were collected by means of a detailed questionnaire sent to Fortune 500 companies. Six hundred companies were targeted and there was a response of 34.5 % or 207 companies.

Resistance to planning and resources provided for planning were the dimensions which contributed most to the effectiveness of the planning. Of the design dimensions, use of techniques and external orientation were the important factors. Internal Orientation and Functional Coverage were not key determinants of effectiveness.

"Strategy, Strategy Making & Performance - An Empirical Investigation by Segev (1987) studied the effects of the relationship between strategic types described by Miles and Snow (1978) and strategy making mode defined by Mintzberg (1978) on organizational performance.

Mintzberg (1973) described three strategic modes: (a) Entrepreneurial, (b) Adaptive and (c) Planning.

The Entrepreneurial Mode (Mintzberg, 1973) is characterized by an active search for new opportunities. Power is centralized in the hands of the chief executive, dramatic forward leaps are made in the face of uncertainty, and growth is the dominant goal of the organization (Segev, 1987, p. 260).

In the Adaptive Mode, (Mintzberg, 1973) clear goals do not exist. There is not a proactive search for

opportunities, but reactive solutions made to deal with existing problems. The adaptive mode generally produces a lower level of performance.

In the planning mode (Mintzberg, 1973) information necessary to the functioning of the company, such as costs, and benefits of competing proposals is systematically analyzed, so that decisions and strategies can be integrated.

Mintzberg's focus dealt with the motives for decisions, and on the process used to develop strategies, rather than focusing on the content of the strategies. "He focused mainly on the motives for decisions, who makes them, how alternatives are evaluated, the decisions, horizons, linkages, organizational goals, flexibility of modes, age of organization, and types of environments beneficial to each mode" (Segev, 1987, p. 258).

Miles and Snow (1978) described four strategic types: (a) Prospector (b) Reactor (c) Defender and (d) Analyzer.

Prospector Organizations value being the first in new-sprung areas, even when their efforts are not profitable. Their goals are periodically redefined and the organization responds quickly to new opportunities or early indications of opportunity.

Organizations of the Reactor type take fewer risks than their competition. These organizations respond only when forced to, due to a changing environment. They do not

maintain their established products or markets in an aggressive manner.

The Defender organization looks for safe or stable niches in product and service areas. Initiatives are generally taken when offering higher quality products, better service or lower prices, if there is a need to protect the companies domain. This is not an aggressive type of organization. This organization will attempt to be superior in its area but, will often ignore changes in the market or area.

Organizations which are of the Analyzer type generally maintain a stable and limited line of products or services and they do pursue new avenues. They approach their growth more carefully than the Prospector and are frequently second rather than first to make changes.

Burgelman (1983) suggested parallels between Mintzberg's modes and the Miles and Snow (1978) typologies. Among the Miles & Snow (1978) types, the Prospector appears to be most compatible with Mintzberg's (1983) Entrepreneurial mode of strategy making. The Reactor type appears to be least compatible with the Entrepreneurial mode. The Defender is the mid range strategic type, however it has relatively low compatibility with the Entrepreneurial mode. The Analyzer is highly compatible with the Entrepreneurial mode but lower than that of the Prospector.

Burgelman (1983) stated that the Reactor was the most compatible with the Adaptive mode. Both exhibit

"inconsistent product market orientation, lack of aggressiveness, low level of risk taking, response rather than initiative, and submission to environmental pressures" (Segev, 1987, p. 260). These factors contribute to low compatibility with the Entrepreneurial mode.

The Prospector Type is least compatible with the Adaptive mode. The Prospector is the risk taker; organizations of the Adaptive mode are not.

The Defender is compatible with the Planning mode (Burgelman, 1983). Both focus on "internal efficiency; possession of information on major competitors; ability to maintain and protect a secure niche for relatively long periods; and the making of decisions on how to be different from their competitors" (Segev, 1987, p. 261).

Segev stated six hypotheses comparing the two typologies. They are as listed:

Proposition 1. "Ranking of the four strategic types according to their compatibility with the Entrepreneurial mode of strategy making is: Prospector, Analyzer, Defender, Reactor" (Segev, 1987, p. 260).

Proposition 2. "Prospectors conforming to the Entrepreneurial mode perform better than other prospectors" (Segev, 1987, p. 261).

Proposition 3. "The ranking of four strategic types according to their compatibility with the Adaptive mode of strategy making is: Reactor, Analyzer and Defender, Prospector" (Segev, 1987, p. 261).

Proposition 4. "Reactors which conform more to the Adaptive mode perform worse than other Reactors" (Segev, 1987, p. 261).

Proposition 5. "The ranking of the four strategic types according to their compatibility with the Planning mode of strategy making is: Defender, Analyzer, Prospector and Reactor" (Segev, 1987, p. 261).

Proposition 6. "Defenders which conform more to the planning mode perform better than other Defenders" (Segev, 1987, p. 261).

The findings clearly supported Propositions one, three, & five, finding strong links between the two typologies. Propositions two, four, & six were only slightly supported by the data.

The level of conformity between the strategic types and the strategy making modes (Propositions one, three, & five) were analyzed using analysis of variance and mean comparisons. Organizations categorized as Reactors conformed to the Entrepreneurial mode of strategy making with a mean of (3.17). This degree was significantly smaller than those of the three other strategic types. The Prospectors mean (4.97) was significantly higher than the mean of the Defenders (4.15).

Propositions 2, 4, & 6 which dealt with performance as a function, were analyzed using Pearson r correlations, and only received slight support.

Planning in Educational Organizations

Operational or Tactical Plans

The majority of plans developed within a school system are tactical or operational plans. These plans are devised in order to support the tasks which have to be performed. They are the plans necessary to implement in order to achieve the strategic plan. They are the "how" in a "what / how" system. Operational plans define how to carry out the strategic plans.

Operational plans tend to be more specific and detailed than the strategic plan. They tend to have a shorter duration. These plans should contribute to the realization of the strategic plan. They should follow directions given by the strategic plan.

Strategic Planning in the Educational Organization

It can be argued that strategic planning within the educational organization differs from the planning process within the business community theoretically because of the difference in the mission of the organization. Although, a mission statement for business could be to provide better products, or serve the community, the organization can not survive without a profit margin. The goal of the business organization is not merely to survive financially, but to thrive, and provide owners and employees with a financially stable life.

It can be argued that the basic difference in the mission statement in education is "to teach them to":

(a) survive (b) thrive.

One can counter the reasoning that the mission statement of business or education can differ. Businesses attempt also "to teach the organizations to" survive and thrive, but at the same time they must prove their ability to survive, or the organization will cease to exist.

It can also be countered by arguing that students are expected to survive. Survival of the fittest exists within the elementary and secondary school organization. Students who do not learn to read, write, or perform mathematical functions do not survive the demands of the organization, and generally do not survive the demands of society. They become the misfits of society.

In the text "Long Range and Short Range Planning for Educational Administrators," Lewis (1983) described how to adapt the strategic planning process to the world of education.

Most school administrators recognize the essential need for planning. However, it appears that few school districts have incorporated effective long range or strategic planning systems. The mission statements of school districts are often assumed, and planning is a process which is often neglected.

According to Lewis (1983) the basic purpose of a school district is not only to increase student achievement, but also to: (a) help produce productive members of society

(b) provide students with a better understanding of people and the world around them (c) help increase literacy and (d) help inculcate the countries political beliefs. Educational planning is now identifying, collecting, and analyzing critical internal and external data in order to prepare and execute long and short range plans to achieve the basic purposes, mission and operational goals of the school system.

In the educational community strategic planning is divided among the central planning unit and the school planning unit. The central planning unit which includes central administrative staff (superintendent, assistant superintendent, directors and others who are accountable to the superintendent). The central planning unit should be as small as possible, and should have knowledge of the internal and external school environment. The School Planning Units include all schools within the district. The school planning unit should be provided with the same written plans as the central planning unit. It should then analyze all data in its internal and external environment and extend the plans to meet the unique needs of the school unit.

There are two approaches currently being used to implement strategic planning in the educational setting. They are:

1. The Instructional Program Model - which consists of developing educational goals and objectives and attempts to improve performance gains.

2. The Comprehensive Model - This approach considers and critically analyzes the internal and external school environment and develops mission statements, basic purposes, educational goals, planning assumptions, long range goals & strategies to reach those goals.

Lewis (1983) recommended a ten stage process for installing a strategic planning process within a school district.

Stage I - Develop and Disseminate Planning Guidelines

The central planning unit is responsible for developing the planning guidelines which should include a critical analysis of the internal and external factors of the school district, past performance results, planning assumptions, long range goals, program strategies, long range budget, and operational plans.

Stage II - Use Planning Guidelines or Manual to Train Staff.

The planning guidelines or manual should be used to train the staff in the process of strategic and operational planning. Actual organization problems should be used in the training process.

Stage III - Develop Critical Analysis

Essential data about the school district's strengths and weaknesses is recorded and used as a starting point for planning. A description of the school district, demographics, aims of the school district, faculty information, and student information are included.

CHART 3

Comparison of Instructional Program Model and Comprehensive Model.

Instructional Program Model	Comprehensive Model
1. Needs assessment usually determines needs or performance gaps on the program level only.	Critical analysis covers all major key result areas of the school organization, recognizing that the lack of performance in one area can adversely affect other areas.
2. Planning assumptions are usually not included in the strategic planning process.	Planning assumptions are essential elements of the strategic and operational planning processes.
3. Proper controls are usually not incorporated as an essential feature of the planning process.	Proper control procedures are built into the planning system. A planning exception report is required whenever there are deviations in the information data base, goals objectives, standards, or activities. These items are keyed to each other throughout the planning process.
4. Long-Range goals and educational goals are used as synonymous performance indicators.	Long-range goals are set to realize the educational goal mission of the school district.
5. The planning process does not include a means for solving critical short-range problems that may be hampering achievement of goals of objectives.	Problem solving plans are considered during the strategic planning process as a means to tackle problem that may hinder progress toward either short-range objectives or long-range goals.

CHART 3

Comparison of Instructional Program Model and Comprehensive Model.

Instructional Program Model	Comprehensive Model
6. The total planning process is seen either consciously or subconsciously as a one-phase process with five to seven subprocesses.	The total planning process is viewed as a three-phase process (strategic, problem-solving, and operational planning) with numerous subprocesses.
7. The planning document contains more information than is necessary to make planning decisions; therefore, it is seldom read from cover to cover.	The planning document contains only essential information that is tersely written and can be written and can be read one sitting.
8. Budget, at times, tends to be treated separately from the planning process.	Budget tends to be treated as an essential component of strategic, problem-solving, and operational planning processes.

Chart from "Long Range and Short Range Planning for Educational Administrators" by Lewis (1983).

Information about the external environment of the school district is also included.

Stage IV - Develop Individual Strategic Plans

Unit administrators construct strategic plans for individual school planning units using information provided by the central planning units.

Stage V - Consolidate, Review and Analyze Individual Strategic Plans

Planning coordinator collects individual unit strategic plans and reviews and evaluates them for content and comprehensiveness. If the plans are satisfactory, they are further examined by the central planning unit. Assistance is provided to unit administrators with unsatisfactory plans.

Stage VI - Plan Adjustment

Central unit personnel suggest changes for improvement of the individual school strategic plans.

Stage VII - Final Approval of Plans

Strategic plans are submitted to the Board of Education for approval. Changes are suggested and made, and final plan is distributed to each planning unit administrator.

Stage VIII - Construct Operational Plans

Planning unit administrators and staff members are responsible for developing operational plans which help accomplish the strategic plan. The operational plan is then submitted to the central office for approval.

Stage IX - Evaluation

Planning unit administrators submit monthly or quarterly

reports to the central unit. These reports serve as the basis for the evaluation of the short range objectives and activities that help reach the strategic goals.

Stage X - Recycle

Information is reviewed and updated on an annual basis.

For an additional explanation of the strategic planning process within the educational organization - the reader is referred to Long Range and Short Range Planning for Educational Administrators by Lewis (1983).

Summary

The planning process is a intricate procedure with an extensive history. Planning has evolved from a simple to a complex and comprehensive process. It is a process which attempts to increase the level of performance within organizations as it guides actions to be carried out in the future.

CHAPTER III

FINDINGS

Research Questions

This study addressed the following research questions:

1. To what extent are educators involved in strategic planning?

2. Are strategic planning systems in educational systems effective, according to three established criteria of effectiveness?

3. Is this effectiveness directly related to seven established dimensions of planning which influence effectiveness?

4. How do strategic and nonstrategic planners compare?

The first research question examines the extent to which educators are involved in the strategic planning process. The respondents were separated according to whether they defined themselves as: (a) strategic planners or (b) planners who do not use the strategic planning process.

Research questions two and three are examined twice. Both the strategic planners and the nonstrategic planners were analyzed statistically in order to determine whether their planning systems were effective or ineffective.

Effective and ineffective planners are described as Group 1 and Group 2, for both the strategic and nonstrategic planners. Group 1 represents the effective planners; Group 2 represents the ineffective planners.

Research question four compares the results of the strategic and nonstrategic planners.

Research Question 1

To What Extent are Educators Involved in Strategic Planning?

In order to determine to what extent educators are involved in strategic planning, 288 surveys were sent to all district superintendents in the 6 county Chicago metropolitan area.

There was a good return rate, as 172 of the surveys were returned. Of the 172 returned, 156 were usable. Therefore, there was a net of 54% usable returned surveys. Seventy-three percent (114) of the respondents defined themselves as strategic planners. The other 27% (42) defined themselves as planners, but not strategic planners.

Strategic Planners

Research Question 2

Are the Strategic Planning Systems Effective According to Three Established Criteria of Effectiveness?

Criterion # 1

Fulfillment of Key Planning Objectives

Of the 156 respondents, 85% of the superintendents in

the six county area are fulfilling the key planning objectives. The six key objectives are: (a) predicting future trends, (b) evaluating alternatives, (c) avoiding problem areas, (d) enhancing management development, (e) improving short term performance, and (f) improving long term performance.

Evaluating alternatives and improving long term performance had the highest level of fulfillment at 86%. Predicting future trends was next with 76% fulfillment of objectives. Improving short term performance had 74% fulfillment. Enhancing management development was 68%, and avoiding problem areas 60%. The objective composite was 85%.

Table 1 depicts the results of the discriminant analysis using variables measuring fulfillment of objectives as the effectiveness criteria.

The results of the discriminant analysis using variables measuring fulfillment of objectives as the effectiveness criteria are presented in Table 1. All of the discriminant functions were significant at $p < .001$. The unequal group sizes may be partly responsible for the invalid assumption of equality of group dispersion matrices, i.e., groups do not have equal variances for each variable.

The percent classified accurately by the linear classification rule was significantly greater than the

percentage accuracy of chance model based on sample prior probabilities.

Functional coverage and resistance to planning were the variables with significant standardized discriminant function coefficients for predicting future trends. For evaluating alternatives, four variables had significant standardized discriminant function coefficients: (a) attention to internal facets, (b) attention to external facets, (c) functional coverage and (d) resistance to planning.

For avoiding problem areas, resistance to planning was the only significant variable. System capability was the only variable which contributed significantly to enhancing management development and improving long-term performance. No single variable significantly predicted improving short-term performance. System capability and resources provided for planning significantly contributed to the objective composite.

Criterion # 2

Evaluation of Student Performance

As compared to 1983 statistics, superintendents had positive evaluations of their district's student performance. Seventy-two percent of the superintendents reported national math scores as better or much better than they were in 1983. Seventy percent reported better district math scores. Superintendents had higher evaluations of improvement in math scores than reading scores. National reading scores were

TABLE 1

Results of Discrimininant Analysis for Groupings Based on Variables Measuring Fulfillment of Objectives (Criterion # 1)
Strategic Planners

	Measures of Fulfillment of Objectives						
Criterion #1	Predicting Future Trends	Evaluating Alternatives	Avoiding Problem Areas	Enhancing Mgment. Develop.	Improving Short-term Perform.	Improving Long-term Perform.	Obj. Compos.
N=	114	114	114	114	114	114	114
Group Sizes							
Group 1 - Eff. Plan: some.fulfilled or entirely fulfilled	87 (76%)	98 (86%)	68 (60%)	78 (68%)	84 (74%)	98 (86%)	97 (85%)
Group 2 - Ineff. Plant entirely unfulfilled, some what unfulfilled, or neutral	27 (24%)	16 (14%)	46 (40%)	36 (32%)	30 (26%)	16 (14%)	17 (15%)
Significance levels of linear discriminant functions	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001
Assumption of equality of group dispersion matrices (p for Box's M)	p < .0012	p < .0008	p < .0023	p < .008	p < .020	p < .005	p < .001
Percent classified accurately by linear classification rule							
Group 1	68.4%	80.2%	65.0%	70.5%	62.2%	79.1%	84.7%
Group 2	62.5%	71.4%	60.0%	54.8%	57.5%	78.6%	78.6%
Overall	67.0%	79.0%	63.0%	65.7%	61.0%	79.0%	83.9%
Percentage accuracy of chance model based on sample prior probabilities	63.5%	75.9%	52.0%	57.0%	61.5%	76.0%	75.7%
Standardized discriminant function coefficients							
System Capability	-0.05	-0.13	0.48	0.91	0.07	0.80	0.71
Use of techniques	-0.06	-0.07	0.48	0.19	0.29	0.21	-0.22
Attention to internal facets	0.40	0.88	-0.07	-0.31	-0.07	0.19	-0.52
Attention to external facets	-0.42	-0.72	0.39	-0.12	0.15	0.04	-0.20
Functional coverage	0.50	0.56	0.14	-0.02	0.14	0.19	0.39
Resources provided for planning	0.15	0.05	-0.08	0.18	-0.15	0.08	0.61
Resistance to planning	0.65	0.97	-0.50	0.08	0.09	0.40	0.44

* In the Strategic Planning Assessment Questionaire, Group 1 (Effective Planners) represents ratings of 4 and 5,
Group 2 (Ineffective Planners) represents ratings of 1,2, and 3.
Ratings 1-5 are as follows:
1=entirely unfulfilled 4=somewhat fulfilled
2=somewhat fulfilled 5=entirely fulfilled
3=neutral

reported improved by 67% of the superintendents, and district reading scores were reported improved by 61%. Fifty-nine percent of superintendents reported improvement in student attendance. Student dropout rate, and percent of college bound students were applicable only to school districts with high schools.

Table 2 shows that of all districts, 48% of strategic planners reported an improvement in dropout rate, and 50% reported improvement in percentage of college bound students. The performance composite indicated that of all districts, 61% of strategic planners saw improvement in student performance. The majority of districts indicate student performance has improved since 1983.

Table 2 depicts the results of the discriminant analysis for groupings based on performance relative to competition. All of the discriminant functions were significant at $p < .001$. The unequal group sizes may be partly responsible for the invalid assumption of equality of group dispersion matrices, i.e., groups do not have equal variances for each variable. The percent classified accurately by the linear classification rule was significantly greater than the percentage accuracy of chance model based on sample prior probabilities. Attention to external facets and resistance to planning were the variables with significant standardized discriminant function coefficients for district reading scores performance measures. For national math scores, functional coverage had significant standardized discriminant

TABLE 2

Results of Discriminant Analysis for Groupings Based on Student Performance (Criterion # 2) Strategic Planners

Criterion #2	District Reading Scores	District Math Scores	Nation. Reading Scores	Nation. Math Scores	Student Attend. Rate	Student Dropout Rate	% College Bound Student.	Perform. Compos.
	Performance Measures							
N=	114	114	114	114	114	106	90	88
Group Sizes								
Group 1: Better, or much better	70 (61%)	80 (70%)	76 (67%)	82 (72%)	67 (59%)	51 (48%)	50 (56%)	61 (69%)
Group 2: Equal, worse or much worse	44 (39%)	34 (30%)	38 (33%)	32 (28%)	47 (41%)	55 (52%)	40 (44%)	27 (31%)
Significance levels of linear discriminant functions	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001
Assumption of equality of group dispersion matrices (p for Box's M)	p < .001	p < .001	p < .001	p < .001	p < .001	p <.001	p < .001	p < .001
Percent classified accurately by linear classification rule								
Group 1	67.2%	61.4%	68.6%	70.4%	57.6%	51.1%	67.8%	70.0%
Group 2	64.1%	60.0%	63.0%	64.3%	65.8%	68.7%	60.0%	66.7%
Overall	66.0%	61.0%	67.0%	68.7%	61.0%	60.2%	63.3%	68.8%
Percentage acccuracy of chance modal based on sample prior probabilities	52.4%	58.0%	55.8%	59.4%	51.6%	50.1%	50.6%	57.1%
Standardized discriminant function coefficients								
System Capability	-0.00058	-0.08	0.295	0.348	-0.30	-0.11	0.316	0.29
Use of techniques	0.064	0.39	0.345	0.437	0.38	0.28	0.189	0.08
Attention to internal facets	-0.111	-0.16	-0.310	-0.340	0.16	0.25	-0.206	0.08
Attention to external facets	0.630	0.23	0.313	-0.234	-0.02	0.06	0.278	0.28
Functional coverage	0.401	0.45	C 425	0.590	0.37	0.13	0.540	0.30
Resources provided for planning	-0.012	0.14	0.103	0.160	0.27	0.15	-0.145	0.04
Resistance to planning	-0.638	-0.41	-0.349	-0.336	-0.18	-0.39	0.157	-0.04

* In the Strategic Planning Assessment Questionaire, Group 1 (Effective Planners) represents ratings of 4 and 5,
Group 2 (Ineffective Planners) represents ratings of 1,2, and 3.
Ratings 1-5 are as follows:

1=much worse
2=worse
3=neutral
4=better
5=much better

function coefficients.

For percent of college bound students, functional coverage was the only significant variable. No single variable significantly predicted district math scores, national reading scores, student attendance rate, or dropout rate.

Criterion # 3

Satisfaction With Planning Systems

Of the 114 strategic planners 76% classified themselves as satisfied planners. Table 3 represents the results of the discriminant analysis using satisfaction as the measure of effectiveness. The discriminant function was significant at $p < .001$. The inequality of group sizes may be partly responsible for the invalid assumption of equality of group dispersion matrices, i.e., the groups do not have equal matrices for each variable. At least three-fourths of the sample was correctly classified. This was significantly greater that the 63.08 accuracy of chance model based on a sample group prior probabilities.

System capability and resources provided for planning were the only two variables with significant standardized discriminant function coefficients.

Table 4 shows corresponding statistics for the variables measuring effectiveness and composites. The conclusions show that all variables show tendency to positive effectiveness of planning systems. Restated, all variables are related.

TABLE 3

Results of Discriminant Analysis for Groupings Based on Satisfaction (Criterion # 3)
Strategic Planners

Criterion	Results
N =	114
Group sizes	
Number of satisfied planners	87 (76%)
Number of dissatisfied planners	27 (24%)
significance level of the linear discriminant function	p <.01
Assumption of equality of group dispersion matrices (p for Boxes M)	p <.000255
Percent classified accurately by linear classified rule	
Group 1	78.9 %
Group 2	75.0 %
Overall	78.0 %
Percent accuracy of chance model based on sample group prior probabilities	63.0%
Standardized discriminant function coefficients	
System capability	.491
Use of techniques	-.232
Attention to internal facets	.198
Attention to external facets	.310
Functional coverage	-.078
Resources provided for planning	.667
Resistance to planning	.267

TABLE 4

Means, Standard Deviations, and Intercorrelations of the Variables Measuring Effectiveness of Planning Systems
Strategic Planners

Variables	n	Means	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Predict future trends	114	3.94	0.81	1.0	.62	.24	.34	.24	.38	.71	.08	.11	.15	.11	-.05	.12	.19	.21	.33
2. Evaluate alternatives	114	4.17	0.69	—	1.0	.18	.39	.23	.47	.70	.08	.15	.09	.11	.04	.04	.18	.22	.42
3. Avoid Problem Areas	114	3.68	1.06	—	—	1.0	.14	.25	.17	.57	.03	.01	-.09	-.15	-.16	.02	.06	.07	.05
4. Enhance management development	113	3.9	0.86	—	—	—	1.0	.27	.43	.66	.14	.05	.19	.12	.01	-.00	.22	.24	.46
5. Improve short Term Performance	114	3.89	0.73	—	—	—	—	1.0	.32	.57	.27	.20	.24	.12	.05	.08	.23	.28	.09
6. Improve long term performance	114	4.26	0.74	—	—	—	—	—	1.0	.68	.19	.15	.18	.13	.10	.09	.32	.29	.60
7. Objective -composite	113	3.97	0.52	—	—	—	—	—	—	1.0	.17	.14	.18	.09	-.01	.10	.33	.34	.47
8. Comparison of district Test scores in reading	114	3.69	0.64	—	—	—	—	—	—	—	1.0	.72	.50	.39	.32	.45	.36	.68	.16
9. Comparision of district test scores in math	114	3.82	0.66	—	—	—	—	—	—	—	—	1.0	.50	.56	.29	.34	.30	.66	.09
10. Comparison of national reading scores	113	3.88	0.79	—	—	—	—	—	—	—	—	—	1.0	.85	.50	.28	.56	.80	.15
11. Comparison of national math scores	114	3.98	0.77	—	—	—	—	—	—	—	—	—	—	1.0	.51	.25	.42	.75	.12
12. Student attendance rate	114	3.80	0.81	—	—	—	—	—	—	—	—	—	—	—	1.0	.62	.57	.72	.14
13. Student dropout rate	106	3.73	0.89	—	—	—	—	—	—	—	—	—	—	—	—	1.0	.55	.65	.14
14. percent of college bound students	90	3.73	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	1.0	.76	.33
15. Perform. on composite	88	3.78	0.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.0	.27
16. Satisf.	114	3.88	0.81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.0

All correlations above r = .205 are significant at $p < .05$

Table 5 shows the means, standard deviations, ranges and intercorrelations of the seven dimensions of planning systems. All seven dimensions represent normally distributed variables. The intercorrelations are moderate (.3 -.6) Discriminant analysis was determined to be the appropriate statistical approach. The use of multiple regression may seem appropriate, but it is not when multicollinearity is present in the data. Multicollinearity does not affect the interpretation of the results of discriminant analysis.

Research Question 3

Is This Effectiveness Directly Related to the Seven Established Dimensions of Planning?

Six out of seven dimensions are positive: (a) system capability, (b) attention to external facets, (c) attention to internal facets, (d) emphasis on functional coverage (e) resources provided for planning and (f) resistance to planning were positive factors. Use of techniques was a neutral factor.

Table 6 presents relative importance rankings of the dimensions of planning in a number of discriminant analysis. The results relating the dimensions to the effectiveness measures show that the most important factor for predicting future trends is use of techniques. Functional coverage and attention to external facets rank second and third, respectively, in the importance of predicting future trends. Attention to internal facets is fourth in relative importance, while system capability is fifth. The variables

TABLE 5

Means, Standard Deviations, and Intercorrelations of the Seven Dimensions of Planning Systems
Strategic Planners

Dimensions	Means	s.d.	1	2	3	4	5	6	7
1. System capability	52.43	43.32	1	.30	.46	.47	.58	.37	.47
2. Use of Technique	18.23	17.65	-	1.0	.28	.47	.33	.41	.32
3. Attention to internal facets	11.77	3.12	-	---	1.0	.50	.41	.22	.22
4. Attention to external facets	15.95	4.60	-	---	----	1.0	.58	.37	.38
5. Functional coverage	28.16	14.01	-	---	----	---	1.0	.36	.32
6. Resources provided for planning	14.13	10.46	-	---	----	---	---	1.0	.47
7. Resistance to planning	7.38	11.12	-	---	----	---	---	--	1.0

All values are based on data from 114 school districts used in the discriminant analysis.

TABLE 6

Relative Importance Rankings of the Dimensions of Planning in 16 Discriminant Analysis
Strategic Planners

Effectiveness Measures	Dimensions						
	System Capability	Use of Techniques	Attention to Internal Facets	Attention to External Facets	Functional Coverage	Resources Provided for Planning	Resistance to Planning
Objective fulfillment							
Predicting future trends	5	1	4	3	2	6	7
Evaluating alternatives	6	1	4	7	3	2	5
Avoiding Problem Aresa	7	5	3	4	6	1	2
Enhancing managemnt development	7	3	5	4	1	6	2
Improving short term performance	2	1	7	4	5	6	3
Improving long term performance	1	6	2	3	7	4	5
Objective composite	2	4	5	7	6	1	3
Student Performance							
Comparison of district Test scores in reading	1	7	5	2	3	6	4
Comparison of district test scores in math	1	6	7	5	2	3	4
Comparison of national reading scores	4	5	7	3	2	6	1
Comparison of national math scores	5	2	4	6	3	7	1
student attendance rate	5	2	4	1	3	7	6
student dropout rate	5	2	1	6	3	7	4
percentage of college bound students	2	5	6	3	1	7	4
Performance on composite	2	3	7	5	6	4	1
Satisfaction							
Satisfaction with the planning system	5	4	7	3	1	2	6

that are sixth and seventh in the relative importance for pedicting future trends are resources provided for planning and resistance to planning.

Characteristics of Strategic Planners

The characteristics of the respondents and their school districts in Table 7 show that there is clearly a bias in favor of male superintendents. The majority (77%) have been employed in the field of education for 21 or more years. Seventy-six percent of the sample has been employed by the current school system for up to 15 years. Over three-fourths of the sample has a doctorate. Eighty-nine percent of the sample has been involved in strategic planning for up to eight years.

Nonstrategic Planners

Research Question 2

Are the Planning Systems Effective According to the Three Established Criteria of Effectiveness?

Criterion # 1

Fulfillment of Key Planning Objectives

The superintendents who classified themselves as non-strategic planners in the six county metropolitan area are fulfilling five out of six key planning objectives, but at a lower rate than the strategic planners. Evaluating alternatives had the highest level of fulfillment at 75%. Improving long term performance was second at 69%. Improving short term performance and avoiding problem areas had a 67% level of fulfillment. Enhancing management development had a

TABLE 7

Characteristics of Respondents and Their School Districts
Strategic Planners

Characteristics	Respondents (n = 114)
Position	
Superintendent	93.86
Assistant Superintendent	5.26
Other	0.88
Sex	
Male	93.86
Female	6.14
Number of Years Employed in Field of Education	
0 - 5 years	1.75
6 - 10 years	0.88
11 - 15 years	2.63
16 - 20 years	18.42
21 - 25 years	31.58
26 - 30 years	29.83
31 - + years	14.91
Number of Years Employed by Current School System	
0 - 5 years	40.35
6 - 10 years	19.30
11 - 15 years	16.67
16 - 20 years	9.65
21 - 25 years	9.65
26 - 30 years	2.63
31 - + years	1.75
Highest Degree	
M.A.	19.30
C.A.S.	3.51
Doctorate	77.19
District - Directly Involved in School Planning	
Yes	100.00
No	0.00
District - Directly Involved in Strategic Planning	
Yes	100.00
No	0.00
Number of Years District has been Involved in Strategic Planning	
0 - 2 years	17.54
3 - 5 years	42.11
6 - 8 years	28.95
9 - 10 years	9.65
11 + years	1.75

All figures are percentages. All nonrespondents have been excluded.

58% level of fulfillment. Predicting future trends was neutral at a 50% level of fulfillment. The objective composite was 72%. The strategic planners had a higher level of fulfillment of objectives in all six areas than the nonstrategic planners, and at a higher percentage rate.

Table 8 presents the results of discriminant analysis for groupings based on variables measuring fulfillment of objectives. For predicting future trends, the significance level of the linear discriminant function was $p < .001$. The assumption of the equality of group dispersion matrices was met (p for Box's M was < .39). The percent classified accurately by the linear classification rule was far greater than chance (63.9 vs. 50). The individual variables that contributed to group discrimination were: (a) system capability, (b) functional coverage and (c) resistance to planning.

For evaluating alternatives, the significance level of the linear discriminant function was $p < .001$. The assumption of the equality of group dispersion matrices was not met (p for Box's M was < .01). The percent classified accurately by the linear classification rule was far greater than chance (83.3 vs. 62.5). The individual variables that contributed to group discrimination were: (a) system capability, (b) use of techniques, (c) functional coverage and (d) resistance to planning.

For avoiding problem areas, the significance level of linear discriminant function was $p < .001$. The assumption of

the equality of group dispersion matrices was not met (p for Box's M was <.002). The percent classified accurately by the linear classification rule was far greater than chance (80.5 vs. 55.5). The individual variables that contributed to group discrimination were: (a) attention to internal facets and (b) attention to external facets.

For enhancing management development, the significance level of the linear discriminant function was P < .001. The assumption of the equality of group dispersion matrices was met (p for Box's M was p <. 43). The percent classified accurately by the linear classification rule was far greater than chance (75.0 vs. 51.4). The individual variables that contributed to group discrimination were: (a) system capability, (b) functional coverage and (c) resources provided for planning.

For improving short-term performance, the significance level of the linear discriminant function was p <.001. The assumption of the equality of group dispersion matrices was not met (p for Box's M was <.003). The percent classified accurately by the linear classification rule was far greater than chance 80.5 vs. 55.5). The individual variable that contributed to group discrimination was attention to internal facets.

For improving long term performance, the significance level of the linear discriminant function was p <.001. The assumption of the equality of group dispersion matrices was met (p for Box's M was p <.40). The percent classified

accurately by the linear classification rule was greater than chance (83.3 vs. 57.6). The individual variables that contributed to group discrimination were: (a) system capability, (b) attention to external facets and (c) resistance to planning.

For the objective composite, the significance level of the linear discriminant function was $p < .001$. The assumption of the equality of group dispersion matrices was not met (p for Box's M was $p < .03$). The percent classified accurately by the linear classification rule was far greater than chance (88.9 vs. 59.9). The individual variables that contributed to group discrimination were: (a) attention to external facets and (b) resistance to planning.

Criterion # 2

Evaluation of Student Performance

As compared to 1983 statistics nonstrategic planning superintendents reported positive evaluations of their district's student performance at a higher rate than the strategic planners. National and district reading scores among nonstrategic planners were reported better or much better at a higher rate than national and district math scores in contrast to strategic planners. All percentage rates in the area of student performance, with the exception of percentage of college bound students were reported better or much better at a higher rate among nonstrategic planners than they were among strategic planners.

TABLE 8

Results of Discrimininant Analysis for Groupings Based Variables Measuring Fulfillment of Objectives (Criterion # 1) Nonstrategic Planners

	Measures of Fulfillment of Objectives						
Criterion #1	Predicting Future Trends	Evaluating Alternatives	Avoiding Problem Areas	Enhancing Mgment. Develop.	Improving Short-term Perform.	Improving Long-term Perform.	Obj. Compos.
N=	42	42	42	42	42	42	42
Group Sizes Group 1 - Eff. Plan: some.fulfilled or entirely fulfilled	21 (50%)	32 (75%)	28 (67%)	24 (58%)	28 (67%)	29 (69%)	30 (72%)
Group 2 - Ineff. Plant entirely unfulfilled, some what unfulfilled, or neutral	21 (50%)	10 (25%)	14 (33%)	18 (42%)	14 (33%)	13 (31%)	12 (28%)
Significance levels of linear discriminant functions	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001
Assumption of equality of group dispersion matrices (p for Box's M)	p < .39	p < .01	p < .002	p < .43	p < .003	p < .40	p < .03
Percent classified accurately by linear classification rule							
Group 1	66.6%	81.5%	87.5%	71.4%	75.0%	84.0%	88.4%
Group 2	61.1%	88.9%	66.6%	80.0%	91.7%	81.8%	90.0%
Overall	63.9%	83.3%	80.5%	75.0%	80.5%	83.3%	88.9%
Percentage accuracy of chance model based on sample prior probabilities	50.0%	62.5%	55.5%	51.4%	55.5%	57.6%	59.9%
Standardized discriminant function coefficients							
System Capability	.50	.53	-.05	.55	-.01	.66	.36
Use of techniques	.18	.57	-.29	.11	-.01	-.40	.37
Attention to internal facets	-.35	-.38	.64	.19	.81	-.19	-.04
Attention to external facets	0.44	.17	0.87	-.25	.14	1.15	.88
Functional coverage	-.57	.50	-.39	.54	.70	-.04	-.23
Resources provided for planning	-.09	-0.45	.45	1.04	.60	.44	.35
Resistance to planning	0.57	0.59	.33	-0.38	-.10	.72	0.56

* In the Strategic Planning Assessment Questionaire, Group 1 (Effective Planners) represents ratings of 4 and 5,
Group 2 (Ineffective Planners) represents ratings of 1,2, and 3.
Ratings 1-5 are as follows:
1=entirely unfulfilled 4=somewhat fulfilled
2=somewhat fulfilled 5=entirely fulfilled
3=neutral

National reading scores were reported improved by 78% of the superintendents, district reading scores were reported improved by 75%. National math scores were reported improved by 64% of the non strategic planning superintendents. Student dropout rate and percentage of college bound students, which was applicable only to districts with high schools, reported improvement at a 53% and 29% respectively. The performance composite reported improvement in student performance by 77% of the nonstrategic planning superintendents.

Table 9 presents the results of discriminant analysis for groupings based on performance relative to competition. The performance measures were: (a) district reading scores, (b) district math scores, (c) national reading scores, (d) national math scores, (e) student attendance rate, (f) student dropout rate, and (g) percent of college bound students.

For all of the discriminant analyses, the significance level of the linear discriminant function was $p < .001$.

For district reading scores, the assumption of the equality of group dispersion matrices was not met (p for Box's M was <.06). The percent classified accurately by the linear classification rule was far greater than chance (80.6 vs. 62.5). All variables except: (a) system capability, (b) attention to internal facets and (c) resources provided for planning were significant.

For district math scores, the assumption of the equality of group dispersion matrices was met (p for Box's M was <.20). The percent classified accurately by the linear classification rule, was greater than chance (66.6 vs. 53.9). All variables except system capability and attention to internal facets were significant individually.

For national reading scores, the assumption of the equality of group dispersion matrices was not met (p for Box's M was <.08). The percent classified accurately by the linear classification rule was far greater than chance (83.3 vs. 65.4). The individual variables that contributed to discrimination were: (a) use of techniques, (b) attention to external facets and (c) resistance to planning.

For national math scores, the assumption of the equality of group dispersion matrices was met (p for Box's M was <.10). The percent classified accurately by the linear classification rule was far greater than chance (77.8 vs. 59.9). All variables except system capability and attention to internal facets were significant individually.

For student attendance rate, the assumption of the equality of group dispersion matrices was met (p for Box's M was <0.19). The percent classified accurately by the linear classification rule was greater than chance (63.9 vs. 53.9). No individual variable significantly contributed to discrimination.

For student dropout rate, the assumption of the equality of group dispersion matrices was met (p for Box's M was

TABLE 9

Results of Discriminant Analysis for Groupings Based on Student Performance (Criterion # 2) Nonstrategic Planners

	Performance Measures							
riterion #2	District Reading Scores	District Math Scores	Nation. Reading Scores	Nation. Math Scores	Student Attend. Rate	Student Dropout Rate	% College Bound Student.	Perform. Compos.
*	42	42	42	42	42	38	36	35
roup Sizes Group 1: Better, or much better	32 (75%)	27 (64%)	33 (78%)	30 (72%)	27 (64%)	20 (53%)	10 (29%)	27 (77%)
roup 2: Equal, worse or much worse	10 (25%)	15 (36%)	9 (22%)	12 (28%)	15 (36%)	18 (47%)	26 (71%)	8 (23%)
ignificance levels of inear discriminant nctions	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001	p < .001
sumption of equality group dispersion rices (p for Box's M)	p < .06	p < .20	p < .08	p < .10	p < .19	p < .11	p < .61	p < .00
rcent classified curately by linear assification rule								
Group 1	77.7%	60.9%	78.6%	73.1%	69.9%	70.6%	66.6%	82.6%
Group 2	88.8%	76.9%	100.0%	90.0%	69.2%	80.0%	63.6%	100.0%
Overall	80.6%	66.6%	83.3%	77.8%	63.9%	75.0%	64.5%	86.6%
rcentage acccuracy of chance model based on sample prior probabilities	62.5%	53.9%	65.4%	59.9%	53.9%	50.2%	58.8%	64.2%
andardized discriminant function coefficients								
System Capability	0.13	-0.13	0.17	-0.18	0.27	0.38	0.08	0.38
Use of techniques	0.90	0.60	1.13	1.07	-0.05	0.11	0.16	0.98
Attention to internal facets	0.42	0.46	0.26	0.36	-0.33	-0.19	0.66	0.60
Attention to external facets	-1.13	-0.87	-1.02	-1.15	0.28	-0.25	-0.94	-1.77
Functional coverage	0.60	1.00	0.31	0.90	0.36	0.75	0.43	0.80
Resources provided for planning	0.47	0.80	0.29	0.85	-0.08	0.35	0.25	0.93
Resistance to planning	-0.72	-1.00	-0.54	-1.03	-0.02	-0.84	-0.77	-0.98

* In the Strategic Planning Assessment Questionaire, Group 1 (Effective Planners) represents ratings of 4 and 5, Group 2 (Ineffective Planners) represents ratings of 1,2, and 3. Ratings 1-5 are as follows:

1=much worse
2=worse
3=neutral
4=better
5=much better

<0.11). The percent classified accurately by the linear classification rule was far greater than chance (75.0 vs. 50.2). The individual variables that contributed to discrimination were functional coverage and resistance to planning.

For percent of college bound students, the assumption of the equality of group dispersion matrices was met (p for Box's M was < 0.61). The percent classified accurately by the linear classification rule was greater than chance (64.5 vs. 58.8). The individual variables that contributed to discrimination were: (a) attention to internal facets, (b) attention to external facets and (c) resistance to planning. For the performance composite, the assumption of the equality of group dispersion matrices was not met (p for Box's M < .0001). The percent classified accurately by the linear classification rule was far greater than chance (86.6 vs. 64.2). All of the variables except system capability were significant individual contributors to discrimination.

Criterion # 3

Satisfaction With Planning System

Of the 42 non strategic planners, 64% classified themselves as satisfied planners. Table 10 presents the results of discriminant analysis for groupings based on satisfaction. The grouping variable is satisfaction of planners (satisfied vs. dissatisfied). The significance level of the linear discriminant function is P <.001. The assumption of equality of group dispersion matrices

TABLE 10

Results of Discriminant Analysis for Groupings Based on Satisfaction Criterion # 3
Nonstrategic Planners

Criterion # 3	Results
N =	42
Group sizes	
Number of satisfied planners	27 (64%)
Number of dissatisfied planners	15 (36%)
Significance level of the linear discriminant function	0
Assumption of equality of group dispersion matrices (p for Boxes M)	p <.271
Percent classified accurately by linear classified rule	
Group 1	91.3%
Group 2	16.9%
Overall	86.1%
Percent accuracy of chance model based on sample group prior probabilities	53.9%
Standardized discriminant function coefficients	
System capability	1.222
Use of techniques	.020
Attention to internal facets	-.170
Attention to external facets	.037
Functional coverage	-.114
Resources provided for planning	.966
Resistance to planning	-.527

was met, (p for Boxes M < .271). Dissatisfied planners are classified well above the percent accuracy of chance model based on sample group prior probabilities (91.3 vs. 53.9). The same was not true for satisfied planners, who were classified well below the percent accuracy of chance model based on sample group prior probabilities (16.9 vs. 53.9) The overall percents classified accurately by the linear classification rule is 86.1, so the discriminant function does provide useful information overall, as depicted by the highly significant p - value (p <.001). The variables that contributed independently to discrimination were: (a) system capability, (b) resources provided for planning and (c) resistance to planning.

Table 11 presents the means, standard deviations and intercorrelations of the seven dimensions of planning systems. All the variables appear normally distributed with the exceptions of: (a) use of technique, (b) resources provided for planning and (c) resistance to planning. This was determined without the aid of graphical data analysis since the standard deviations for those variables are obviously much larger than their means. The intercorrelations are low to moderate. The range is from 0.03 to 0.48. The only exceptionally high correlation (0.71) was between resources provided for planning and resistance to planning. Resistance to planning actually measured lack of resistance to planning or a positive attitude toward planning.

TABLE 11

Means, Standard Deviations, and Intercorrelations of the Seven Dimensions of Planning Systems Nonstrategic Planners

Dimensions	Means	s.d.	1	2	3	4	5	6	7
1. System capability	51.21	35.43	1	.22	.11	.35	.48	.25	.31
2. Use of Technique	14.93	24.02	-	1.0	.26	.41	.06	.17	.16
3. Attention to internal facets	11.74	1.47	-	---	1.0	.35	.17	-.04	.03
4. Attention to external facets	15.10	4.38	-	---	--	1.0	.48	.06	.06
5. Functional coverage	26.98	15.31	-	---	---	---	1.0	.06	.19
6. Resources provided for planning	10.51	15.95	-	---	---	---	---	1.0	.71
7. Resistance to planning	3.90	11.63	-	---	---	---	---	---	1.0

All values are based on data from 42 school districts used in the discriminant analysis.

Research Question 3

Is the Criteria of Effectiveness Among Nonstrategic planners Directly Related to Seven Dimensions of Planning?

Five out of seven dimensions had positive correlations with effectiveness in planning systems. The positive dimensions were: (a) system capability, (b) attention to internal facets, (c) attention to external facets, (d) functional coverage and (e) resistance to planning.

Table 12 presents the means, standard deviations and intercorrelations of the variables measuring effectiveness of planning systems. All of the variables are normally distributed. The intercorrelations range from extremely low to high (-0.29 to 0.91). All correlations above $r = 0.33$ were significant at $p < .05$. Among the low correlations were the comparison of avoiding problem areas and of national reading scores ($r = -0.02$) and between improving long term performance and district test scores in reading ($r = 0.02$). Among the high correlations were the comparison of national reading scores ($r = 0.91$) and between comparison of national math scores and performance a composite ($r = 0.89$).

Table 13 presents the relative importance rankings of the dimensions of planning in all of the discriminant analyses of effectiveness measures related to objective fulfillment and relative performance. For improving long term performance, the most important variable is use of techniques. Resources provided for planning is second, resistance to planning is third and functional coverage is

TABLE 12

Means, Standard Deviations, and Intercorrelations of the Variables Measuring Effectiveness of Planning Systems
Nonstrategic Planners

Variables	n	Means	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Predict future trends	42	3.40	0.80	1.0	.69	.06	.49	.38	.66	.75	.06	.17	.06	.09	-.04	-.29	-.11	-.02	.60
2. Evaluate alternatives	42	3.76	0.76	—	1.0	-.01	.55	.51	.50	.74	.07	.26	.12	.13	-.05	-.06	-.23	.08	.53
3. Avoid Problem Areas	42	3.66	0.87	—	—	1.0	.13	.32	.43	.45	.04	-.06	-.02	-.06	.05	.07	.13	.08	-.06
4. Enhance management development	42	3.52	0.94	—	—	—	1.0	.55	.54	.77	.22	.25	.08	.07	.09	.03	-.29	.13	.69
5. Improve short Term Performance	42	3.69	0.95	—	—	—	—	1.0	.52	.76	.28	.39	.13	.16	.06	.02	-.03	.17	.45
6. Improve long term performance	42	3.74	0.66	—	—	—	—	—	1.0	.84	.02	.05	-.08	-.11	-.12	-.27	-.08	-.10	.49
7. Objective -composite	42	3.63	0.57	—	—	—	—	—	—	1.0	.17	.25	.07	.07	.01	-.10	-.14	.09	.63
8. Comparison of district Test scores in reading	42	3.86	0.72	—	—	—	—	—	—	—	1.0	.87	.73	.69	.24	.26	.11	.77	.20
9. Comparision of district test scores in math	42	3.74	0.80	—	—	—	—	—	—	—	—	1.0	.62	.71	.24	.21	.10	.74	.28
10. Comparison of national reading scores	42	4.02	0.84	—	—	—	—	—	—	—	—	—	1.0	.91	.44	.33	.23	.86	.27
11. Comparison of national math scores	42	4.00	0.99	—	—	—	—	—	—	—	—	—	—	1.0	.48	.37	.27	.89	.26
12. Student attendance rate	42	3.88	0.73	—	—	—	—	—	—	—	—	—	—	—	1.0	.66	.28	.68	.14
13. Student dropout rate	38	3.76	1.05	—	—	—	—	—	—	—	—	—	—	—	—	1.0	.27	.64	.03
14. percent of college bound students	36	3.33	0.83	—	—	—	—	—	—	—	—	—	—	—	—	—	1.0	.45	.03
15. Perform. on composite	35	3.78	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.0	.28
16. Satisf. with the planning system	42	3.68	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.0

All correlations above r = .325 are significant at $p < .05$

TABLE 13

Relative Importance Rankings of the Dimensions of Planning in 16 Discriminant Analysis
Nonstrategic Planners

Effectiveness Measures	Dimensions: System Capability	Use of Techniques	Attention to Internal Facets	Attention to External Facets	Functional Coverage	Resources Provided for Planning	Resistance to Planning
Objective fulfillment							
Predicting future trends	4	2	6	1	5	3	7
Evaluating alternatives	1	6	7	5	3	4	2
Avoiding Problem Aresa	7	1	4	2	3	6	5
Enhancing managemnt development	1	5	2	7	4	6	3
Improving short term performance	4	3	6	7	5	2	1
Improving long term performance	6	1	5	7	4	2	3
Objective composite	3	5	6	4	7	1	2
Student Performance							
Comparison of district Test scores in reading	7	4	1	6	2	3	5
Copaison of dis trict test scores in math	4	7	1	6	2	5	3
Comparison of national reading scores	2	4	7	3	5	6	1
Comparison of national math scores	5	2	7	3	6	4	1
student attendance rate	2	4	7	3	5	1	6
student dropout rate	2	7	5	4	6	3	1
percentage of college bound students	5	1	4	3	2	6	7
Performance on composite	5	7	1	4	6	3	2
Satisfaction							
Satisfaction with the planning system	7	4	3	6	2	5	1

fourth. Attention to internal facets, system capability and attention to external facets are fifth, sixth, and seventh, respectively.

Characteristics Of Nonstrategic Planners

Table 14 presents the characteristics of respondents who are not directly involved in strategic planning. Almost 98% are superintendents. Ninety percent are male. Ninety-three percent have been employed more than 15 years in the field of education. Seventy-two percent have been employed up to 15 years by their current school system. Sixty-nine percent have a doctorate. Ninety-three percent have a graduate level degree. Almost 98% are directly involved with school planning.

Strategic Planners vs. Nonstrategic Planners

Research Question 4

How do Strategic and Nonstrategic Planners Compare?

The strategic planners were effective according to the three established criteria of effectiveness. The strategic planners also demonstrated six out of seven dimensions of planning systems. One dimension (use of techniques) was neutral.

Non strategic planners reported effective planning systems according to the three established criteria of effectiveness, in two areas: (a) extent of fulfillment of key planning objectives and (b) satisfaction of planning systems) at a lower percentage rate than the strategic planners. The

TABLE 14

Characteristics of Respondents and Their School Districts
Nonstrategic Planners

Characteristics	Respondents (n = 42)
Position	
Superintendent	97.62
Assistant Superintendent	0.00
Other	2.38
Sex	
Male	90.48
Female	9.52
Number of Years Employed in Field of Education	
0 - 5 years	0.00
6 - 10 years	0.00
11 - 15 years	7.14
16 - 20 years	14.29
21 - 25 years	28.57
26 - 30 years	28.57
31 - + years	21.43
Number of Years Employed by Current School System	
0 - 5 years	42.86
6 - 10 years	11.91
11 - 15 years	16.67
16 - 20 years	9.52
21 - 25 years	9.52
26 - 30 years	4.76
31 - + years	4.76
Highest Degree	
M.A.	23.81
C.A.S.	7.14
Doctorate	69.05
District - Directly Involved in School Planning	
Yes	97.62
No	2.38
District - Directly Involved in Strategic Planning	
Yes	00.00
No	100.00
Number of Years District has been Involved in Strategic Planning	
0 - 2 years	----
3 - 5 years	----
6 - 8 years	----
9 - 10 years	----
11 + years	----

All figures are percentages. All nonrespondents have been excluded.

nonstrategic planners reported evaluation of student performance at a higher level than strategic planners.

Those who identify themselves as nonstrategic planners generally have the majority of the same characteristics of the strategic planners but at a lesser percentage rate.

Nonstatistical Findings

There was a great deal of interest in the strategic planning process. In many of the incomplete surveys, there were questions about the definition of strategic planning and questions about the way the process differed from long range planning.

Summary

Chapter III presented the results of research which examined strategic planning systems and nonstrategic planning systems. These planning systems were studied in order to determine what factors make a planning system effective or ineffective. The strategic planning systems and nonstrategic planning systems were compared.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Planning procedures are becoming increasingly important as school administrators face school reform. Society is demanding change within our school systems, and the most efficient way to enact change is with effective planning procedures.

Effective planning is not a reaction to circumstances or planning as the result of an emergency. Effective planning strives to use the energy within the system to think and plan ahead for excellence within the organization.

The purpose of this study was to examine the use of strategic planning techniques in the educational organization, determine the effectiveness of the strategic planning systems within the organization and explore the dimensions of planning elements contributing to differences in effectiveness between more and less effective systems.

Three criteria were used to determine whether a planning system was effective or ineffective. They were:

1. Criterion # 1 - The extent of fulfillment of key planning objectives which include:

    a. Predicting Future Trends - Planning which helps organizations to delineate probable, plausible, and preferable future states of the world, and produces reasonably valid forecasts of the future. Predicting future trends is recognized as an important task of planning.

b. Evaluating Alternatives - the ability to delicately balance control and creativity, look at and examine all alternatives, and make wise judgements.

c. Avoiding Problem Areas - the ability to increase the probability of achieving goals and minimize the recurrence of errors.

d. Enhancing Management Development - the ability to improve the quality of management and facilitate management succession.

e. Improving Short Term & Long Term Performance - Improving selection of short and long term goals, and improving the ability to improve those goals.

2. Criterion # 2 - The academic achievement of the organization.

3. Criterion # 3 - An overall measure of satisfaction within the organization.

Seven planning dimensions were analyzed to determine if one, more or all seven contributed to the effectiveness of the planning system. The dimensions included:

1. System capability - The ability of a formal planning system to balance creativity and control; adaptive flexibility of a system and its capability to support strategy formulation and implementation (Ansoff, 1975, 1984; Anthony & Dearden, 1976; Camillus, 1975; Lorange & Vancil, 1977; King & Cleland, 1978; Thompson, 1967).

2. Use of techniques - The degree of emphasis given to the use of planning techniques to structure ill-defined,

messy, strategic problems (Grant & King, 1979, 1982; Hofer & Schendel, 1978; Hax & Majluf, 1984).

3. Attention to Internal Facets - The degree of attention to internal (organizational) factors, past performance, and analysis of strengths and weaknesses (Camillus & Venkatraman, 1984; Grant & King, 1982; King & Cleland, 1978; Lorange & Vancil, 1977; Stevenson, 1976).

4. Attention to External Facets - The level of emphasis given to monitoring environmental trends. (Aguilar, 1965; Fahey & King, 1977; Keegan, 1974; Kefalas & Schoderbek, 1973; Thomas, 1980).

5. Functional Coverage - The extent of coverage given to different functional areas with a view to integrating different functional requirements into a general management perspective. (Hitt, Irland, & Palia, 1982; Hitt, Irland, & Stadter, 1982; Lorange, 1980; Snow & Hrebiniak, 1980).

6. Resources Provided for Planning - The degree of organizational support in the form of number of planners, involvement of top management in planning, etc. (King & Cleland, 1978; Steiner, 1979).

7. Resistance to Planning - The need to anticipate and overcome resistance to planning and to create a favorable climate for effective planning (Steiner, 1979; Steiner & Schollhammer, 1975; Schultz & Slevin, 1976).

The study addressed four research questions:

1. To what extent are educators involved in strategic

planning? How many years have they been involved in the process?

2. Are the strategic planning systems in educational organizations effective, according to three established criteria of effectiveness?

3. Is this effectiveness directly related to seven established dimensions of planning which influence effectiveness?

4. How do strategic and nonstrategic planners compare?

The instrument used to address the research questions was a five point Likert Scale Questionnaire, titled "Strategic Planning Assessment For Educational Organizations".

The population included 288 district superintendents in the six county metropolitan RTA area of Illinois (Cook, DuPage, Lake, McHenry, Kane, and Will counties).

The Twin Spreadsheet Software System and the S statistical program language were used to perform statistical functions. Statistical analysis included:

1. characteristics of respondents.

2. means, standard deviation, and intercorrelations of the seven dimensions of planning systems.

3. means, standard deviations, and intercorrelations of the variables measuring effectiveness of planning systems.

4. discriminant analysis for groupings based on satisfaction.

5. discriminant analysis for groupings based on

variables measuring fulfillment of objectives.

6. discriminant analysis for groupings based on performance relative to competition.

7. relative importance rankings of the dimensions of planning in 13 discriminant analyses

8. A comparison of those who identified themselves as strategic planners with those who plan, but do not use the strategic planning process.

Interpretations and Conclusions

Strategic Planners

Criterion # 1

In the area of objective fulfillment, among the strategic planners, the top three dimensions were:

1. resources provided for planning
2. system capability
3. resistance to planning

Criterion # 2

In the area of student performance, the top three dimensions among the strategic planners were:

1. resistance to planning
2. system capability
3. use of techniques

Criterion # 3

In the area of satisfaction, the top three dimensions among the strategic planners were:

1. functional coverage
2. resources provided for planning

3. attention to external facets

Nonstrategic Planners

Criterion # 1

In the area of objective fulfillment, the top three dimensions among the nonstrategic planners were:

1. resources provided for planning
2. resistance to planning
3. system capability

Criterion # 2

In the area of student performance, the top three dimensions among the nonstrategic planners were:

1. attention to internal facets
2. resistance to planning
3. resources provided for planning

Criterion # 3

In the area of satisfaction, the top three dimensions among the nonstrategic planners were:

1. resistance to planning
2. functional coverage
3. attention to internal facets

Comparison

When comparing each, the strongest three dimensions were:

1. resistance to planning
2. resources provided for planning
3. system capability

Functional coverage was the fourth strongest dimension

for both strategic planners and nonstrategic planners.

Although both strategic and nonstrategic planners met the three criteria for effectiveness, the strategic planners were stronger in two out of three areas than the nonstrategic planners; (a) fulfillment of objectives, and (b) satisfaction. The nonstrategic planners were stronger in the area of student performance. Overall, the strategic planners had a higher percentage of effectiveness than the nonstrategic planners. The emphasis on dimensions appear to differ in the three weaker dimensions. For the strategic planners, the relative importance rankings (Table # 6) show that: (a) attention to external facets and (b) use of techniques were listed among the top three dimensions in at least one performance composite. Attention to internal facets was not a top dimension with the strategic planners

Among the nonstrategic planners, the relative importance rankings (Table 13) show that: attention to internal facets was among the top three dimensions in one performance composite. Attention to external facets and use of techniques were not top dimensions.

Three of the seven dimensions appear to be more highly correlated with effectiveness than the other dimensions. They are:

1. resistance to planning
2. system capability
3. resources provided for planning

Comparison of Current Study with Ramanujam Study

Two of the seven dimensions were more highly correlated with effectiveness than the other dimensions in both the current study and the Ramanujam study. They were:

1. system capability
2. resources provided for planning

Implications for Administrators

The majority of superintendents appear to have effective planning systems. However, the strategic planners appear to be slightly more effective than the nonstrategic planners. Although the seven dimensions are thought to be important in determining the effectiveness of planning systems, it would appear that some dimensions contribute to the effectiveness of planning more so than others. In both strategic planning systems and nonstrategic planning systems: (a) resources provided for planning, (b) resistance to planning and (c) system capability appear to be key dimensions. Both the strategic planners and nonstrategic planners focus on functional coverage to a lesser degree.

The dimension that was weak among the strategic planners was attention to internal facets. The dimensions that were weak among the nonstrategic planners were (a) attention to external facets and (b) use of techniques. Perhaps greater emphasis on the top dimensions and some emphasis on all dimensions would improve the planning among strategic and nonstrategic planners.

Interpretations and Conclusions From Nonstatistical Findings

There appears to be a great deal of interest in strategic planning among superintendents in the educational system. There was an overall 60% return of surveys, 157 of 298 surveys were returned, as compared to most mail surveys which have low response rates. It appears that most nonstrategic planners have many of the same qualities of the strategic planners only to a slightly lesser extent.

Limitations in Design, Sampling, Statistics

The major limitations of this study were that: The information was biased from superintendents point of view. The response was overwhelmingly from a male superintendent perspective.

There is a possibility that it was further biased by those who have particular interest in planning or strategic planning systems.

Recommendations for Future Research

In future research studies of strategic planning, the author recommends repeating the objective study using the "Strategic Planning Assessment for Educational Organizations" In addition to the superintendents, the author recommends including other levels of planning personnel in the study, so as to obtain a broader perspective of the planning process.

In addition to the objective study, the author recommends doing an in depth subjective study of the

strategic planning process of one or more school districts that were identified as having effective strategic planning systems. In this part of the study, the author recommends interviews and observations with the intent of gaining knowledge from the experienced, effective strategic planning superintendent and staff.

Recommendations for Strategic Planning

1. Identify and state the purpose of the organization.
2. Carefully produce the goals of the organization.
3. Minimize the importance of the current status of the organization.
4. Work diligently toward achieving the goals.
5. Research and use a strategic planning process, do not plan haphazardly.

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May 29, 1988

Dear *tit* *LN*,

As part of my doctoral dissertation research at Loyola University, I am conducting a study examining strategic planning systems in Chicago's six county metropolitan, RTA area.

The purpose of this letter is to request your participation in the pilot research phase of this study.

Enclosed, please find a copy of a survey instrument pertaining to strategic planning in the educational organization. I ask that you complete the survey and give an honest, objective opinion of the quality of the instrument. Please indicate if there are problems with the length of the questionnaire, clarity of the questions, or reading of the instructions. All responses will be kept confidential.

Please complete the questionnaire, and forward it to me in the self addressed stamped envelope at your earliest convenience.

Thank you for your cooperation. It is greatly appreciated.

Sincerely,

Deborah J. Knox
Loyola University

Pilot Test Evaluation

Test Name: Strategic Planning Assessment for Educational Organizations

Estimated Test Time: 15 minutes

Please comment

1. Reading of instructions

2. Demonstration of form completion

3. Clarity of questions

4. Actual time needed to complete questionnaire

5. Length of questionnaire

6. Which questions seemed unclear, redundant, or unnecessary?

July 29, 1988

Dear *tit* *LN*,

As part of my doctoral dissertation research at Loyola University, I am conducting a study examining strategic planning systems in Chicago's six county metropolitan, RTA area.

The purpose of this letter is to request your participation in the research phase of this study. As the superintendent, I believe you are the one most knowledgeable about the planning process in your district, and I am asking that you complete the questionnaire.

Enclosed, please find a copy of a survey instrument pertaining to strategic planning in the educational organization. Although the survey appears lengthy, it should take only ten minutes to complete. All responses will be kept confidential.

Please complete the questionnaire, and forward it to me in the self addressed stamped envelope at your earliest convenience.

Thank you for your cooperation. It is greatly appreciated.

Sincerely,

Deborah J. Knox

August 27, 1988

Dear *tit* *LN*,

Please be reminded of a recent letter requesting your participation in a study that examines strategic planning in the educational setting. Your experience as the superintendent of schools makes your input highly valuable and desirable. Your response to the survey will contribute to the reliability and value of the research findings.

Enclosed, you will find a copy of the survey instrument dealing with strategic planning. I ask that you complete the questionnaire, and forward it to me in the enclosed self addressed stamped envelope at your earliest convenience. All information will be kept confidential.

Thank you for your help. It is greatly appreciated.

Sincerely,

Deborah J. Knox

STRATEGIC PLANNING ASSESSMENT

FOR EDUCATIONAL ORGANIZATIONS

1. * Position_____

   * It is requested that the superintendent complete this survey, if at all possible. Thank you.

2. Male_____ Female_____

3. Number of years employed in field of education.

   0 - 5 years____ 6 - 10 years_____ 11 - 15 years____

   16 - 20 years____ 21 - 25 years_____ 26 - 30 years____

   31 years or more_____

4. Number of years employed by current school system.

   0 - 5 years____ 6 - 10 years____ 11 - 15 years_____

   16 - 20 years____ 21 - 25 years____ 26 - 30 years_____

   31 years or more_____

5. Highest Degree

   B.A._____ M.A._____ Doctorate_____

6. Are you directly involved in school planning?

   Yes_____ No_____

7. Is your organization involved in strategic planning?

   Yes_____ No_____

8. Number of years your district has been involved in strategic planning?

   0 - 2 years____ 3 - 5 years____ 6 - 8 years_____

   9 - 10 years____ 11 years or more_____

PLEASE CIRCLE YOUR RESPONSES. Thank You.

How would you rate your organization's:

	Low				High
9. ability to anticipate surprises and crises?	1	2	3	4	5
10. flexibility to adapt to unanticipated changes?	1	2	3	4	5
11. value as a mechanism for identifying new opportunities?	1	2	3	4	5
12. role in identifying key problem areas?	1	2	3	4	5
13. value as a tool for managerial motivation?	1	2	3	4	5
14. capacity to generate new ideas?	1	2	3	4	5
15. ability to communicate top administration's expectations down the line?	1	2	3	4	5
16. value as a tool for management control?	1	2	3	4	5
17. capacity to foster organizational learning?	1	2	3	4	5
18. ability to communicate line management's concerns to top administration?	1	2	3	4	5
19. value as a mechanism for integrating diverse functions and operations?	1	2	3	4	5
20. value as a basis for enhancing innovation?	1	2	3	4	5

	Strongly Disagree				Strongly Agree
21. Today's system emphasizes creativity among managers more than our previous system.	1	2	3	4	5

Are the following planning techniques used in your organization?

	Never				Always
22. PPBS - Planning, program & budgeting	1	2	3	4	5
23. zero-based budgeting	1	2	3	4	5
24. MBO	1	2	3	4	5
25. project management techniques (e.g. PERT)	1	2	3	4	5
26. scenarios / delphi- techniques	1	2	3	4	5
27. forecasting and trend analysis	1	2	3	4	5

How much emphasis is placed on the following?

	Low Amount				High Amount
28. internal capabilities	1	2	3	4	5
29. past performance	1	2	3	4	5
30. reasons for past failure	1	2	3	4	5
31. general economic and business conditions	1	2	3	4	5
32. regulatory issues, policy issues	1	2	3	4	5

	Low Amount				High Amount
33. identification of the purpose of the organization?	1	2	3	4	5
34. external factors which influence the organization?	1	2	3	4	5
35. the current state of the organization?	1	2	3	4	5
36. the desired state of the organization?	1	2	3	4	5
37. Educational trends	1	2	3	4	5
38. technological trends	1	2	3	4	5
39. public relations	1	2	3	4	5
40. day to day administration and teaching	1	2	3	4	5
41. finance	1	2	3	4	5
42. personnel function	1	2	3	4	5
43. purchasing and procurement function	1	2	3	4	5
44. studies, surveys and technology	1	2	3	4	5
45. computers	1	2	3	4	5

How much emphasis is placed on resources provided for planning?

	Low Amount				High Amount
46. number of planners	1	2	3	4	5
47. time spent by the chief executive officer in strategic planning	1	2	3	4	5

	Low Amount				High Amount
48. involvement of staff managers in strategic planning	1	2	3	4	5
49. resources provided for strategic planning	1	2	3	4	5

How would you rate the organization's:

	Low				High
50. overall emphasis on strategic planning?	1	2	3	4	5
51. involvement of line managers in strategic planning?	1	2	3	4	5
52. acceptance of the outputs of strategic planning exercise by top management?	1	2	3	4	5
53. resistance to planning in general?	1	2	3	4	5
54. threats to the continuation of strategic planning?	1	2	3	4	5

How much emphasis is placed on:

	Low Amount				High Amount
55. predicting future trends?	1	2	3	4	5
56. evaluating alternatives based on more relevant information?	1	2	3	4	5
57. avoiding problem areas?	1	2	3	4	5

	Low Amount				High Amount
58. enhancing management development?	1	2	3	4	5
59. improvement in short term performance?	1	2	3	4	5
60. improvement in long term performance?	1	2	3	4	5

In comparing the school district's current student characteristics with those of 1983, how would you rate your organization's:

	Much Worse				Much Better
61. test scores in reading as compared to previous scores within the school or school system	1	2	3	4	5
62. test scores in math as compared to previous scores within the school or school system	1	2	3	4	5
63. test scores in reading as compared to national norms	1	2	3	4	5
64. test scores in math as compared to national norms	1	2	3	4	5
65. student attendance rate	1	2	3	4	5
66. student dropout rate	1	2	3	4	5
67. percentage of college bound students	1	2	3	4	5

What degree of satisfaction do you have with your organization's:

	Low				High
68. planning?	1	2	3	4	5
69. implementation of plans?	1	2	3	4	5
70. evaluation of plans?	1	2	3	4	5
71. refinement of plans?	1	2	3	4	5

STRATEGIC PLANNING ASSESSMENT FOR EDUCATIONAL ORGANIZATIONS EXPLANATION OF QUESTIONS

The questions included in the strategic planning survey which were sent to the superintendents in the Chicagoland area are explained in this section. Responses for all items were measured with five point scales. Items followed by (R) were reverse coded. The first eight questions measured descriptive information, including whether or not the superintendents were strategic planners.

Dimensions of Planning Systems

System Capability

System capability was measured on a scale ranging from "much improvement" to "much deterioration", or "strongly disagree" to "strongly agree" with the following 13 items: (Questions 9 - 21)

1. ability to anticipate surprises and crises
2. flexibility to adapt to unanticipated changes
3. value as mechanism for identifying new business opportunities
4. role in identifying key problem areas
5. value as a tool for managerial motivation
6. capacity to generate new ideas
7. ability to communicate top administration's expectations down the line
8. value as a tool for management control

9. capacity to foster organizational learning

10. ability to communicate line management's concerns to top administration

11. value as a mechanism for integrating diverse functions and operations

12. value as a basis for enhancing innovation

13. today's system emphasizes creativity among managers more than our previous system

Use of Techniques

Use of techniques was measured on a scale ranging from "significant decrease in use" to "significant increase in use" with the following six items: (Questions 22 - 27)

1. PPBS
2. zero-based budgeting
3. MBO
4. project management techniques (e.g. PERT)
5. scenarios / delphi- techniques
6. forecasting and trend analysis

Attention to Internal Facets

Attention to internal facets was measured on a scale ranging from "significantly less emphasis" to "significantly more emphasis" with the following three items: (Questions 28 - 30)

1. internal capabilities
2. past performance
3. reasons for past failure

Attention to External Facets

Attention to external facets was measured on a scale ranging from "significantly less emphasis" to "significantly more emphasis" with the following four items: (Questions 31, 32, 37, 38)

1. general economic and business conditions
2. regulatory issues, policy issues
3. educational trends
4. technological trends

Functional Coverage

Functional Coverage was measured on a scale ranging from "significantly less emphasis" to "significantly more emphasis" with the following seven items: (Questions 39 - 45)

1. public Relations
2. day to day administration and teaching
3. finance
4. personnel function
5. purchasing and procurement function
6. studies, surveys and technology
7. computers

Resources Provided for Planning

Resources provided for planning was measured on a scale ranging from "significant decrease" to "significant increase" with the following four items: (Questions 46 - 49)

1. number of planners

2. time spent by the chief executive officer in strategic planning

3. involvement of staff managers in strategic planning

4. resources provided for strategic planning

Resistance to Planning

Resistance to planning was measured on a scale ranging from "significant decrease" to "significant increase" with the following four items: (Questions 50 - 54)

1. overall emphasis on strategic planning (R)

2. involvement of line managers in strategic planning (R)

3. acceptance of the outputs of strategic planning exercise by top management (R)

4. resistance to planning general

5. threats to the continuation of strategic planning

Effectiveness of Planning Systems

Fulfillment of Objectives

Fulfillment of objectives over the past five years was measured on a scale ranging from "entirely unfulfilled" to "entirely fulfilled" with the following six items: (Questions 55 - 60)

1. predicting future trends

2. evaluating alternatives based on more relevant information

3. avoiding problem areas

4. enhancing management development

5. improvement in short term performance

6. improvement in long term performance

Performance Relative to Competition

Performance relative to competition over the past five years was measured on a scale ranging from "much worse" to "much better" with the following seven items: (Questions 61 - 67)

1. test scores in reading as compared to previous scores within the school or school system
2. test scores in math as compared to previous scores within the school or school system
3. test scores in reading as compared to national norms
4. test scores in math as compared to national norms
5. student attendance rate
6. student dropout rate
7. percentage of college bound students

Overall Satisfaction

Overall satisfaction with planning systems over the past five years was measured on a scale ranging from "significant decrease" to "significant increase" with the following four items: Questions 68 - 71)

1. planning
2. implementation
3. evaluation
4. refinement

Strategic vs. Nonstrategic Planners

Originally, the current study included questions designed to measure whether or not those claiming to be

strategic planners actually fulfilled the goals of strategic planning systems. (Questions 33 - 36) It was later decided that only one question (Question 7) would be used to determine whether school systems used the strategic planning system.

APPROVAL SHEET

The dissertation submitted by Deborah Joyce Knox has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education (Ed.D.).

April 18, 1991
Date

Director's Signature