
Environmental scanning in educational organizations: uses, approaches, sources and methodologies

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Suggests that, in today's world of uncertainty, it is of vital importance for an individual or an educational institution to stay abreast of environmental changes which may affect their future. Presents up-to-date information on environmental scanning and how it can be used to benefit educational organizations. For modern educational institutions, it is necessary to establish a systematic method of collecting information regarding external influences on educational institutions. However, it is quite difficult for any individual to be knowledgeable about all occurrences that may affect an institution, and it often requires special expertise to realize how an event or trend might affect an institution in the future. An institution must tailor specific sources of external information, devise a method to collect the information, and use the information effectively in the planning process and in building the future. Argues that environmental scanning has proved to be successful for school systems and should be accorded the importance it deserves. Furthermore, scanning provides all individuals with the opportunity to contribute to the strategic planning process which is of vital importance for the survival of an organization.

The twenty-first century has been the frequent setting for fantastic tales painted by science fiction writers, imaginative comic books, the movies, and strategic planners in educational institutions. The 1990s are considered a critical transition decade by scholars, and frequently they are characterized by an increase of technological, economic and social change, increasing uncertainty, and growing international interdependence[1]. We have moved away from the industrial era, into the information technologies and computer science eras, and now we are into the biogenetics era, as most strategic planners (such as Jim Cook in the USA[2]) believe.

With the emphasis on accountability in education today, school administrators are faced with the challenge of developing and implementing educational systems that are effective and efficient. Educational mandates are requiring increased justification and documentation of programme results. Communities are questioning school programmes, policies and procedures. Parents are demanding greater participation in school programmes and even in school administration and the day-to-day running of the schools. Legislators are demanding more widespread results and higher student achievement and performance standards.

Educational administrators must respond by devising more effective methods of administrative management. Facing greater uncertainty and the potential for stagnation, many educational planners are turning for help to the corporate technique of environmental scanning. While business has devoted a great deal of attention to strategic planning and its related process, environmental scanning, it is only recently that any emphasis has been placed on the study of strategic planning in school settings[3].

Definitions of environmental scanning differ, but they all agree that environmental scanning is an efficient, organized means for an institution to collect relevant information regarding the external environment[4]. Environmental scanning is a mechanism for interlocking issues, events, fads and trends with an institutional commitment to change and improvement. Issues, events, fads and

trends are indicators of change and often suggest movement in a particular direction[5,6].

Planning in this age of change takes a number of new dimensions, calling for methods that take into consideration how the future will be different from the past. A central objective of this planning is to place the organization in a strategically flexible position in order to alter its strategies as the conditions of the organization and the environment change. The end result is the very survival of the organization itself.

During the 1980s, changes in the social, political and economic spheres, and the environment surrounding educational institutions, encouraged decision makers to expand their view outside the educational arena and emphasize flexibility and an orientation towards planning. As educational institutions advance into the last decade of this century and prepare for a new millennium, interest in and attention to the significance of the external environment continue.

A rational, common platform of the environmental tendencies affecting education which can be created through scanning provides a schema within which educational institutions can begin to structure a dialogue on their future. The importance and significance of the environment surrounding education is becoming increasingly self-evident as institutions anticipate their own presence in the twenty-first century and attempt to stay "in step with the changing environment"[5]. A case has been made during the 1980s that education has a permeable boundary with the environment of which it is a part and, therefore, focus on the environment is a critical success-and-survival factor[6].

In order to understand environmental scanning better some assumptions should be made explicit. Strategic planning, of which environmental scanning is a part, assumes an open system whereby organizations must constantly change and adapt as the needs of the larger society change. It focuses on the process of planning, building a vision and community development[3]. Strategic planning emphasizes changes outside the

organization, organizational values and proactive action[5].

As a part of strategic planning, environmental scanning is the first step to linking external issues, events and trends with planned change of the internal organizational structures. Clagett[7], Popovics[4], Morrison[6], Nunley[8], and others, maintain that environmental scanning is a critical component for organizational decision making, and that there exists an important link between the external environment and institutional planning through environmental scanning. This kind of assessment of the environment has been identified as the most common technique used in order to include both qualitative and quantitative information about the external world into decisions affecting structural or institutional and organizational climate or attitudinal changes.

Uses of environmental scanning

A well-done scan will improve the quality of institutional planning and decision making by alerting those leading the organization to pertinent changes in the environment. According to Clagett[7], potential applications of environmental scanning to planning include the following:

- *Strategic planning and budgeting:* environmental scanning is an essential element of the needs-assessment phase of strategic planning in order to take into account possible environmental changes that may influence the budgetary process.
- *Unit operational planning:* environmental scanning findings should be shared with unit managers to help them with operational planning.
- *Marketing:* environmental scanning provides valuable market research to assist in matching an organization's products and communications with the needs of its service population.
- *Accreditation:* environmental scanning demonstrates to accrediting bodies the institution's commitment to its clientele and to informed planning.
- *Fundraising:* environmental scanning alerts the institution to funding planning and funding possibilities that were not thought of before.
- *Proposal writing:* environmental scanning provides information useful in pursuing grant opportunities.
- *Lobbying and public relations:* environmental scanning can keep the institution sensitive to political currents and guide public relations efforts.

Environmental scanning is essential for effective planning. Planning in isolation is a formula for disaster and, at any rate, in today's uncertainty, it is an impossibility. In order to emphasize how much scanning and planning are intertwined, a more detailed analysis of what planning is seems appropriate. Planning has four major components: needs assessment, plan development, implementation and evaluation. Specifically, the assessment stage includes a situational analysis, an environmental scan and an internal appraisal. Whereas the internal appraisal (analysis) identifies strengths and weaknesses[2], the environmental scan targets opportunities and threats from the outside: that is, the assessment stage identifies strengths and weaknesses, opportunities and threats (SWOT) that are out there in the environment waiting to be found.

Approaches to scanning

Scanning can be accomplished by various means and by using facilitative strategies. Three approaches which have been used successfully are:

- 1 establishing a scanning committee;
- 2 sponsoring a scanning conference or event[6,7];
- 3 assigning the task to the institutional research and planning office.

Committee members are assigned the task of preparing written abstracts of information pertaining to a particular aspect of the environment from a variety of sources. The abstracts may be written by the scanner or by the abstracters.

Environmental scanning is most effective when it becomes a part of the culture or "mind-set" of the organization as a whole. The value of feedback and expert participation as well as staff participation is formalized in a "read and review" process. Such a process supports the mind-set orientation of environmental scanning as a decentralized and legitimate activity within the organizational climate. Environmental scanning is a continuous, systematic alertness to the external environment in a way that helps build an understanding of what sort of future the educational community wishes to create.

It is both a "pervasive and a persistent dialogue" on the future, allowing for the qualitative observation as well as the quantitative. As a mind-set, environmental scanning recognizes and includes the intuitive judgments that are disseminated throughout the

institution. It is a continuum of information receiving-processing-planning-monitoring.

Effective strategic planning must be “outward looking” because outside events trigger most institutional changes. Clagett[7] identifies six environmental contexts institutions should monitor: demographic, economic, legal-political, organizational-competitive, socio-cultural, technological.

- 1 *Demographic* – for instance, the decline in numbers of high-school graduates in the USA is common knowledge. Other population trends that need to be monitored for their implications include changes in racial and ethnic composition, socio-economic characteristics, age distribution of the population, birth-rates and household structure.
- 2 *Economic* – trends in local and state revenues may affect funding levels. Changing industrial patterns may alter local occupational demand. Worldwide economic agreements (such as the recently signed trade agreement between Japan and the USA or the GATT agreement) could have profound effects on the funding of education in a particular country.
- 3 *Legal-political* – educational institutions participate in local and state political processes. Schools must constantly be attuned to the relevant political dynamics and how changes may have political ramifications. In addition, school systems should be attuned to new legislation that directly affects their organizational structure and funding, as well as being aware of court decisions that may affect educational institutions.
- 4 *Organizational-competitive* – the quality of institutional relationships with other education institutions can have a substantial impact on education. For instance, relations between elementary and secondary education, as well as relations between secondary and tertiary education, can attune the institutions involved to changes that are occurring in one level of education that could, potentially, have an effect on the way things are functioning at another level of education.
- 5 *Socio-cultural* – dual-income families, increased female workforce participation, multiple career changes, and more heterogeneous lifestyles have schools adjusting schedules, etc.
- 6 *Technological* – changing technology affects both what schools teach and how they teach it in today’s global village, such as the world has become. Technological changes also have a profound effect on the

way universities prepare tomorrow’s teaching force.

An integral part of the environmental scanning process is the human element. Individuals who serve as scanners need training and orientation in scanning and reporting information from these materials via abstracts. Scanners should keep in mind that they are scanning to anticipate social, economic, technological and legislative changes in order to facilitate planning. They should seek signals that indicate departures from expected futures. They should ask themselves if the items:

- represent events never before encountered;
- contradict previous beliefs about what seems to be happening;
- discuss new points or research results;
- have implications for long-range programmes;
- contain statistics, polls or forecasts;
- contain statistics describing changes; or
- describe new trends that were unforeseen a few years back.

It is ideal if scanners also serve as abstracters. However, scanners may be reluctant to spend the required time writing abstracts. If so, it may be advantageous to hire abstracters. It is recommended that all scanners and research personnel be trained to write abstracts. It should be remembered that scanning is an immensely time-consuming process[6].

Sources of environmental scanning

Environmental scanning begins with gathering information about the external environment. Information can be obtained from various internal and external sources. Internally, key administrators and faculty members can be interviewed to identify emerging issues that they believe may affect the institution in the future and that are not now receiving the attention they will eventually merit.

Faculty are another internal resource for the scanning committee. A monthly scanning committee newsletter could be sent either to all or to selected faculty members. Newsletters serve to heighten awareness of events in the outside world that could affect the institution. Such an awareness may increase faculty members’ openness to change[6]. Using the Delphi technique in order to assess the importance of information received through environmental scanning is one way of making good use of such a newsletter, where faculty rate the information received according to its perceived importance.

Major political newspapers, supplemented by major state and regional newspapers, constitute significant external scanning resources. Resources might include periodicals, specialized publications, fringe publications and, last but not least, professional journals, newsletters and conferences. All of these resources can incorporate many ideas that portend change. Other scanning devices and/or resources include: corporations, realtors, financial institutions, charitable organizations, planning commissions, health departments, governmental agencies, just to name a few. It is clear that a data information base is definitely available[9].

Building scenarios

Through the knowledge one acquires from environmental scanning it is possible to start building scenarios in order to predict the future. The scenario is defined to be a hypothetical sequence of events constructed for the purpose of focusing attention or casual processes or decision points[1]. Scenarios, as well as other futures techniques (such as mapping, trends analysis, cross-impact matrices, etc.), provide a range of possible futures. The focus of scenarios is on conditions and changes resulting in a future state, identifying threats and opportunities along the way. This identification is an element of the assessment stage in the planning process and external analysis[10].

The process of developing and using scenarios focuses and expands environmental scanning efforts. Scenarios also delineate the interrelationships between the organization's internal operations and the external context and place a new emphasis on the organization's continuous environmental scanning. There is a host of futures techniques that could be used by educational institutions (for a detailed description, see Hencley and Yates[11]).

Implications for practice

From a review of the literature we believe that it is of vital importance for an individual or an educational institution to stay abreast of environmental changes that may affect their future. It is necessary to establish a systematic method of collecting information regarding external influences. However, it is quite difficult for any individual to be knowledgeable about all occurrences that may affect an institution, and it often requires special expertise to realize how an event or

trend might affect an institution in the future. An institution must tailor specific sources of external information, devise a method to collect the information, and use the information effectively in the planning process and in building the future.

Environmental scanning is an essential component of planning in today's changing world. Educational institutions, no less than corporations or governments, must understand what is happening in the environment in which they exist, be able to analyse it, and even predict it. Environmental scanning is wider in scope than traditional data collection because it is based on the assumption that major impacts on the school system may come from unsuspected sources and unpredictable occurrences.

Scanning can be accomplished in a cost-efficient manner; it is not necessary to establish elaborate formal scanning. The cost factor is not prohibitive for school systems because, in the worst-case scenario of shrinking resources, it can be done by only one well-trained person. Environmental scanning has proved to be successful for school systems and should be accorded the importance it deserves. Furthermore, scanning provides all individuals with the opportunity to contribute to the strategic planning process. It also enables all individuals to become aware more easily of external occurrences that affect the future, for which the school may prepare strategically.

By involving high-ranking participants, representing all facets of the institution, in the environmental scanning system, the institution is assured, not only that those individuals who have the broadest knowledge and responsibility are working together, but also that they can increase both their awareness of change and their sensitivity to the need for the institution to develop in response to this change. When scanning committee deliberations are revealed to the entire community and when community members are encouraged to participate, the possibility for communication and the acceptance of institutional renewal are increased. In today's world of uncertainty and shrinking economic resources, environmental scanning is a must.

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