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ABSTRACT

Critical influences that will affect continuing education at land-grant and public universities in the early decades of the twenty-first century were identified by a panel of 17 experts. Using a Delphi Technique, the panel first identified 147 critical influences, and then reduced that number to the 34 deemed to be very likely to occur in continuing education at land-grant universities in the next century. Of most importance were the categories "technology," "demographics," "society," and "curriculum." The findings suggest the following will occur in the next century for continuing education programs at land-grant universities: increasing use of educational telecommunications; sensitivity to evolving shifts in student demographics; increased concern about how social problems such as crime, drugs, illiteracy and retraining relate to learning; and increased concern over programming content and outcomes and greater involvement to create curricula that are more tailored to the specific program needs of continuing education. Based on the findings and a literature review, 15 recommendations, are offered regarding continuing education at land-grant and public universities. Five tables categorize the data collected. (Contains 138 references.) (SW)

THE ROLE OF CONTINUING EDUCATION AT LAND-GRANT AND PUBLIC UNIVERSITIES IN THE 21ST CENTURY

by

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THE ROLE OF CONTINUING EDUCATION AT LAND-GRANT AND PUBLIC UNIVERSITIES IN THE 21ST CENTURY

The purpose of this study was to identify the critical influences impacting on continuing education in the early decades of the 21st Century. This study examined the role of continuing education in the early decades of the 21st Century. Particular attention was given to role of continuing education on land-grant university campuses. Using the Delphi Technique critical influences were identified, assembled and analyzed as to which influences were most likely to impact the role of continuing education at land-grant universities in the 21st Century. This study has provided a presentation and analysis of the data collected through the Delphi process. A total of 5 tables were presented to help categorize the data collected. One hundred forty-seven critical influences were identified by the 17 member Delphi panel. Using descriptive statistics and locally developed procedures 34 critical influences were identified as being very likely to occur in continuing education at land-grant universities in the next century. Influences so rated were organized, analyzed and reported as having a high likelihood of impacting continuing education at land-grant universities. These most likely influences were listed, by category, in tables. In addition, the critical influences appearing to be less likely to occur were also presented in table form. The study found that the list of 34 most critical influences were also supported in the literature as being important issues that continuing education at land-grant universities will have to deal in the early decades of the 21st Century.

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Chapter I

Introduction

This study examines the probable role of continuing education in the early decades of the 21st Century. This study identified and examined critical influences having a direct impact on the role of continuing education on land-grant and other public university campuses. The Delphi Technique was used as the research methodology to identify these critical influences impacting the role of continuing education at land-grant universities in the 21st Century.

Continuing education holds a precarious position on most university and college campuses (Dunn, 1983; Smith, 1983; Smith and Dunn, 1985; Volkert, 1985) . Part of this is due to a lack of clear organization and management patterns which can impact significantly on the ability of continuing education programs to effectively interact with the community environment. New organizational patterns are needed to help in the preparation of appropriate curriculum, and generally in the overall ability of the institution to meet the needs of these adult learners (Feuer, 1980; Flanagan, 1979; Lenz, 1977; Smalley, 1987). The role and organizational structure must be analyzed and compared before an acceptable role or model can be designed (Afolayan, 1986).

Continuing education programs face difficult situational circumstances. In the past, adults in rural areas were not provided additional education opportunities. Societal demands for more education required that people more quickly adapt to change. It was crucial that the worker take on the learning of new skills (Cross, 1981; Ibid., 1987; Hodgkinson, 1985; Perkins & Van Deusen, 1964; Spencer, 1985).

Continuing education faces many internal institutional barriers which

incumber the unfettered developing of an appropriate role. In part, the level of program quality, effectiveness, and cohesiveness can best be determined through an exhaustive program analysis which allows key adult participants to express their viewpoints (Smalley, 1987).

Continuing education programs must compete with other campus departments and units for resources, positions, facilities and status (Volkert, 1985). Colleges and universities have re-examined the value of continuing education due to the declining enrollments of traditionally aged students, the 18 to 22 year olds (Fay, McCune, Begin, 1987). While the importance of these new students is recognized, university administration has not clearly defined the role of continuing education in terms of resource allocation. (Darkenwald & Merriam, 1982; Jonas, 1986; Smalley, 1987).

The importance of this study is the examination of continuing education units within land-grant university environments and the reporting of the results from such a study will contribute to a better understanding of university organization and management of continuing education. Scholars in organizational development have long been interested in the distribution of power among sub-units of organizations, in particular academic sub-units. Examination of continuing education in terms of power distribution could be informative (Emerson, 1962; Hickson, Hinings, Lee, Schneck & Pennings, 1971; Lungu, 1980; Thompson, 1967; Volkert, 1985).

Continuing education is a common element of a university hierarchy today much like the Registrar, Admissions, Extension and Research Offices. Placement of continuing education programs in the field has been based on their growing share of student enrollments over the age of 30, the large number of off campus part-timer

students who are recurrent in their education interest, and more motivated to learn. The more progressive universities have created new Colleges of Continuing Education. The curriculum and programs have also changed in content and delivery methods (Hodgkinson, 1985). Today post-secondary institutions, including vocational and technical schools, have experienced significant non-traditional student population growth on their campuses. Similarly, continuing education programs in the field have grown by targeting the needs of their own new market audiences. (Astari, 1981; Cross, 1981; Ibid., 1979; Spencer, 1985; Sullivan, 1980; Watkins, 1982). These returning students in continuing education programs are older, more focused on learning, have blended their education in that they are full-time some of their college years and part-time for other parts of their college years. These continuing education students do not always seek credit or a degree, but return to college for a complex set of reasons. College and University campuses respond to these new types of students in different ways. Moreover, because of the decline in the numbers of traditional, college-aged students, education administrators have prepared for a financially difficult future (Mayhew, 1980; Mingle & Norris, 1981; Volkert, 1985). In some instances these new non-traditional students have not been welcomed with open arms by the more traditional institutions. Their growing numbers and determined motivation to obtain additional education has forced a reckoning. These traditional institutions have made only minimal policy adjustments to accommodate these non-traditional audiences. Enrollments and the financial future of many education institutions are more precarious now than in the booming decade of the 1960's.

Many colleges and universities adopted new strategies for countering this decline of traditional, college-aged students. They created new programs and expanded

their field service areas to include these new audiences. Regardless of names, "non-degree and non-traditional students" (Campbell, 1982), "older students" (Harrington, 1979), "new constituencies" (Jacobs, 1979), "special groups" (Stoel, 1980), or just simply, "adults," a place was found or created for their participation (Volkert, 1985; Wagner, 1980). The change in numbers and types of students has left the universities largely unprepared in the ways and means to accommodate them.

Problem Statement

Land-grant universities are redefining their historical mission. Continuing education is an important element of this developing shift. The role of continuing education within the land-grant and other public university campuses has not been clearly defined. This research will identify some of the new role elements. There are no studies that focus on the critical influences which impact the evolving role of continuing education at large land-grant and other public universities (Moos, 1982) .

Purpose of the Study

The purpose of this study was to identify the critical influences impacting on continuing education in the early decades of the 21st Century.

Need For The Study

Literature on continuing education is plentiful and broadly developed in terms of topics. However, there were no studies, articles, books or dissertations found which explored the role of continuing education should take in the next century. There is a need for a research study which explores the elements, or critical influences, which

taken together comprise the role continuing education should take in the 21st Century. Statistics indicate that adult learners which populate continuing education programs will be the only growth area for education in the early decades of the next century (Cross, 1981; Hodgkinson, 1985). For example, in comparison in the 1990s the 18 and 19 year old traditional student will comprise only 40 to 45 percent of all college enrollments. This is a decline in available traditional student population of 89.9 million individuals (Apps, 1980).

Therefore, it appears that there is a need for a comprehensive examination of the role of continuing education in the 21st Century. The land-grant university setting was selected as the primary focus for two reasons. First, land-grant universities have a long history of public service (extension, cooperative extension and agricultural extension) and therefore provide a nurturing setting for this study. Second, by placing the study in a land-grant university setting the study can be controlled in terms of the pre-existence of certain known criteria found on land-grant universities, e.g., the long history, the functioning extension organizations, and an outlying system of field sites used by continuing education (Extension/County Agents) (Clark, 1956; Harrington, 1979; Smalley; 1987; Volkert, 1985). Other public universities have similarities with the land-grant university and the reporting of the findings and conclusions equally represent them.

Research Question

1. What are the influences which will change the field of university continuing education in the 21st Century?

Limitations of the Study

1. This study is limited to land-grant and other public universities in the continental United States.

2. Participants were identified as being located on land-grant or other public universities by self-nomination. The use of self-nomination in combination with the small panel of 17 continuing education experts may have inadvertently caused some bias to influence the Delphi Technique process.

Definitions of Terms

The following terms are defined as they have been used in this study.

Definitions:

Administration: a generalized type of behavior to be found in all human organizations. Administration is the process of directing and controlling life in a social organization (Griffith, 1980).

Administrative Decentralization: a process whereby the organization is divided into smaller units; the locus of power and authority remain with a single central administration and board. Decentralization is the distribution of administrative power of functions over a less concentrated area (Stein, 1966).

Administrative Centralization: the concentration of administrative power in a central unit. Chiefly, it is a process whereby social work groups and institutions become increasingly dependent on a control group or institution. There is a concentration of control or power in a few individuals (Simon, 1977).

Directors: those knowledge workers, managers, or individual professionals who are expected by virtue of their position or knowledge to make decisions in the normal course of their work that have significant impact on the performance and results of the whole (Barnard, 1938; Drucker, 1967).

Continuing Education: adult oriented education efforts such as those courses, classes, workshops, seminars, conferences and programs offered to business and industry, government sector agencies, non-profit organizations and private entrepreneurial groups as well as formal higher education institutions. Continuing education also refers to education programs whose content and purpose may, or may not be related to a degree acquiring skill acquisition or academic credit. (Jonas, 1986).

Critical Influences: acts or occurrences which have an effect on the condition or development of continuing education and so on the administration of continuing education in land-grant university settings.

Delphi Technique is a method for the systematic collection of informed judgments on a particular topic. The Delphi was invented in the late 1940s at the RAND Corporation for the purpose of estimating the probable location and effects of a massive atomic bomb attack on the United States. The Delphi is a process of inquiry starting with an assumption, seeking a consensus (Linstone & Turoff, 1975).

Educational Technology specific discoveries in education, whether curriculum or hardware, used for the sole purpose of advancing education or teacher training.

Expert: a highly educated and experienced specialist in the organization and administration of continuing education units and programs.

External Factors: forces outside the immediate control of university administrators, e.g., governmental regulations, programs of other education organizations, shifts in demographics and nation-wide economic fluctuations. (Pfeffer & Salancik, 1978).

Extension: the formally organized campus unit at some universities which offers courses and programs designed primarily for working, non-matriculated adult

students in the community.

Faculty: the entire staff of professional teachers and research scholars at an institution of higher education.

Institutionalization: a process through which continuing educational changes, i.e., reforms, innovations and program transfers are accepted and integrated into the parent educational system (Lungu, 1980).

Internal Factors: the structural, interpersonal and political forces which are at work within the university organization. Internal factors are those which program managers in the organization believe they can control or shape through direct intervention or manipulation (Volkert, 1985).

Land Grant University colleges and universities established as a result of the original Morrill Act of 1862 and then or subsequently designated as land-grant institutions by the state legislature. They are public universities funded by state legislation whose purpose is to prepare the state's population for applied and scientific occupations.

Leadership: the personal qualifications, skills, roles and strategies used by one member of the group to change the behavior of the other members (Jacobs, 1970: McGregor, 1960).

Organization: a group of structured elements with relatively identifiable boundaries, a normative order, authority ranks, communication system and membership coordinating systems. This collectively exists on a relatively continuous basis in an environment and engages in activities that are usually related to a goal or set of goals (Hall, 1972).

Professional: as used in this study relates to the elements which make up the

field (identity and image) and to the leaders who work in the field of continuing education.

Public University: as used in this study relates to other large universities which have similar characteristics of land-grant institutions, but are not designated as land-grant universities.

Telecommunications: the use of technology such as audio, video and computer media for delivery of educational programs; or communicating to an audience of students using technology. Such processes would include broadcast television, instructional television, cable television, satellite, audio teleconferencing, computers in distance education and any mix of the methods (Beck, 1983; Chamberlain, 1980; Lewis, 1983; Spencer, 1985).

Training: the learning activities provided by business and industry for their employees where the theory behind the subject matter is not taught (Jonas, 1986).

Organization of the Study

Chapter I includes an introduction, problem statement, purpose, research questions and definitions of terms. Chapter II is a review of the literature including an historical perspective. This chapter also contains a detailed perspective of the challenges to the future of land-grant university continuing education organizations and programs in the 21st century. Chapter III is a detailed look at the methodological approach used in this study. Chapter IV contains the survey results and findings about the critical influences which impact university continuing education. Chapter V includes a summary of the study, conclusions, recommendations and implications.

Chapter II

Review of the Literature

The purpose of this study was to identify the critical influences impacting on continuing education in the early decades of the 21st Century. This chapter is a literature review which supports this purpose through the examination of articles, books and dissertations. There is a vast amount of relevant material written on the various elements that focus on the role of continuing education in the 21st Century. Only the most relevant literature is summarized below. There are four parts to this literature review. The first part examines the external environmental factors surrounding continuing education that shape its direction and content. Specifically, the elements of definition, context and dominion of continuing education all work together to provide a foundation for better understanding of the subsequent parts of this literature review. The second part deals with major program areas molding the internal aspects of the role of continuing education in the 21st Century. The third part is an examination of the land-grant university. This examination of the land-grant university was included because of the locus of the study. The land-grant university is different from the public university in several ways. This part of the literature review examines these differences. A final part is a discussion of the Delphi Technique. This unusual methodology was used to tease out critical influences through the use of an expert panel. These four parts add significantly to the understanding of what the Delphi panel surfaced as critical influences impacting on the role of continuing education in the 21st Century.

Part 1

Continuing education activities are shaped by outside considerations. Continuing educators work from a rough definition of the field, trying to live up to high ideals, but not really comfortable with definitions currently in circulation. Add to this the need for continuing education to be philosophically aligned with the field and with general education. Continuing educators understand the need to respond to environmental forces, i.e. workplace needs, educational technology and demographics (Johnston & Packer, 1987; Russell, 1986; Walker, 1986). Research indicates that while higher education has been slow to respond to these same forces, continuing education has not. However, the main university campus has also been in a dilemma in terms of what role continuing education should play in the university mission of the 21st Century (Brockett, 1987).

A Definition of Continuing Education

Continuing education has historically been difficult to define. In broad terms, continuing education could be what a beholder needs; more specifically, it can be either a process or program. Spencer (1985) suggests a definition of continuing education which focuses on its outreach characteristics. His focus is on credit classes at distant communities, workshops, seminars and conferences for working professionals.

Harrington (1979) in his future oriented book, The Future of Adult Education specifically addressed the problem of developing a concise definition for continuing education:

> "There are definition difficulties....Some day a wise individual--not a committee--will solve the semantic problems. Until then, we must stumble on as best we can. (Harrington, 1979, p. xii)

Malcolm Knowles (1984, p.312) in reviewing andragogy in action defines continuing education broadly as a lifelong learning process which builds on previously acquired knowledge, skills and attitudes. For Knowles, the order and content of continuing education must be flexible to meet the needs of the new audiences emerging as the dominant numbers in today's classroom.

In summary, the definitional difficulties present a development barrier to continuing education in the future (Harrington, 1979).

The Context of Continuing Education

Traditional main campus professionals, on the other hand, still place great emphasis on subject-centered courses allowing little opportunity for self-direction in learning. Learning which takes place for the traditionalist is specifically identified by narrow-based curriculum and lecture-instruction teaching. (Elias & Merriam, 1980; Kauffman, 1976). This philosophic conflict, progressive vs. traditionalist, is just one of the additional problems that effective continuing education units on university campuses will encounter over the next few years (Elias & Merriam, 1980). Apps believes in a "working philosophy", one open for change and additional refinement. (Perelman, 1984; Toll, 1982; Zinn, 1983).

It was in the 1970s that a number public universities came to accept and realize that the "baby boom" was over. Predictions of lower enrollments from the traditional pool of college-aged young people materialized and university officials stretched for innovations which would attract the new market audiences of non-traditional students. These new market audiences included women, minorities and older adults. These new market audiences were critical assets during these times of severe budget retrenchment. Continuing education units were being looked to for

future growth during the times of predicted student decline (Policy Perspectives, 1990; Smalley, 1987).

This new market audience majority is a mixed bag, they contain students who: 1) have spent considerable time away from of any kind of school; 2) are intermittent learners, pursuing their education over extended periods of time; 3) are more likely to be part-time students; 4) will have attended any number of institutions not focused on a particular degree or major; and, 5) have had their school experiences related directly to their work patterns. These new students will not be able to relate to the symbols so keenly admired by the more traditional students; those symbols as represented by dormitories, sororities, fraternities, athletics and marching bands (Duckett, 1988; Exter, 1987; Policy Perspectives, 1990;).

While some public universities are still largely wooing traditional aged college students--those between 18 to 24 years of age offering subject controlled curricula, business and industry is by necessity competing with these same public universities causing massive duplication of educational programs. The poor products of many colleges found work in business and industry to be difficult. They had to be remediated so that they could perform basic job requirements. These duplicate educational experiences cost billions of dollars each year (Jonas, 1986; Projections 2000, 1987; Policy Perspectives, 1990 ; U.S. Government, Occupational Projections and Training Data, 1986; Ibid., Occupational Outlook Quarterly, 1987; Ibid., Statistical Abstract, 1986).

The Domain of Dynamic Change and Continuing Education

Technological advances in the workplace represent the crucible for dynamic change. An underlying theme woven through our educational system is the dynamics

of change. Change as a concept cannot be underestimated, given short shrift or ignored. Change is the most pervasive element in today's society (Shane, 1971). Change has made some institutions irrelevant to the needs of today's citizens. As a result these institutions find their legitimacy attacked. Many people appear to be alienated not just from specific institutions, but from society. This new kind of society is seen as more complex, false, mean and obsolete. (Cornish, 1977). Alan Toffler's, Future Shock (1970) addressed this disorientation saying it is caused by accelerated rapid change. Toffler called this confusion "change shock." In "change shock" people feel uncertain about everything--job, spouse, church, morals, all because change is directly impacting on all these important concepts at the same time (Toffler, 1980; Ibid., 1972).

Toffler (1970) was supported by Gooler (1981), who suggested three environmental factors that impacted continuing education. Gooler outlined these three factors as a different point-of-view than that suggested by Toffler. These are, first, dynamic societal phenomena in play, second, continuing education will reflect on these phenomena and take advantage of those already directly impacting on continuing education, and third, continuing educators will be able to take advantage of the current phenomena to pave the way for introducing new structures, curricula, etc. in the next century.

Naisbitt (1982) in Megatrends, supported Gooler (1981) in suggesting more methods for societal transformation. Naisbitt presented a strong case for the fact that technology in the new information age is neither absolute nor permanent.

This new breed of young, technically-competent knowledge-oriented students, will strain the coping capacities of the more traditional education system (Harris,

1982). Students today are not satisfied with just a survival education. Continuing education can address the needs of these students (Apps, 1980).

Some of the core areas impacted by this trend of accelerated change according to Hoare, are work and leisure, aging, health, professional development, social and civic responsibility, personal adaptation, functional competency and teacher education (1982).

Part II: Major Program Areas Impacting on Continuing Education in the 21st Century

Curriculum Development in Continuing Education

This section deals with the literature as it relates to curriculum development and continuing education programs. The theoretic elements of curriculum development coupled with the fast-paced needs of continuing education, at times appear to be juxtapositioned to each other. Curriculum development needs and fosters stability and predictability. Continuing education, on the other hand, is based on flexibility, change and adaptation (Honig, 1985).

Two trends are developing that will eventually converge and change the educational process considerably. First, because of the rapid development of new knowledge and the rapid obsolescence of the old, those who have left school are increasingly faced with the need for further education, or education updating (Fowles, 1978). Second, increasing numbers of young people are interrupting their formal education for some work experience or exposure to the real world (Fowles, 1978; Hodgkinson, 1986).

Continuing education curriculum planners and designers undertake basic reforms, according to Honig, to translate general ideas of excellence into widespread

workable improvements in quality instruction and identifiable higher levels of student performance (1985). Honig (1985) list a series of issues which must be addressed before any progress can be made: 1) Improvement initiatives must stem from an undated educational philosophy; 2) New ways of organizing effective technical support for improving curriculum and instruction must be developed; 3) The public and the education community must be enlisted in support of an education reform package targeted at all government levels; 4) There needs to be developed new, measurable long range goals for student performance focused on educational activities which provide the skills of the future; 5) There must be an agreed-upon definition of curriculum that reflects integration with contemporary educational philosophy; and, 6) Consortia must be encouraged with other constituencies that have a stake in the performance of the curriculum and the learner (Honig, 1985).

Both Honig (1985) and Fowles (1978) share a view that curriculum development has to undergo basic reforms to become more closely aligned to the issues cited above. Hodgkinson (1986) is more practical in terms of curriculum development. He believes that business and industry has an adequate supply of usable curriculum in their training programs, but sides with Honig in terms of seeing a need for better utilization of existing technology and the need for more linkages between academic curriculum developers and training curriculum developers. For Hodgkinson (1986) innovative use of technology with integrated curricula through consortia could be one solution to providing a reality based curriculum for tomorrow's workplace needs.

Professionalization in Continuing Education

Professionalization in continuing education is important in that this category

supports the internal structure of continuing education connecting the identity and image of continuing education and leadership and leading to the other categories. This category discusses the various external controversies related to the field and examines the internal controversies revolving around the debate over mandatory or voluntary continuing education for working professionals as individuals.

Professionalization has been a concern to both practitioners and academicians since the 1940s when continuing education was in its infancy. Archer Gravely (1983) studied this problem in a dissertation which researched the degree of professionalization in continuing education. According to Gravely continuing education does not meet all the criteria of a full profession. Gravely examined the "profession" of continuing education in terms of an attribute approach to see what "characteristics" continuing education must have to make it a profession. Some of the more common attributes, according to Gravely, are; having a body of specialized knowledge, rendering specialized services, having and adhering to standards of performance, being theory based, the delivery of services deemed positive and necessary by society, having a self-renewal component, a widely accepted code of ethics, the policing of their own ranks and several other lesser attributes (Gravely, 1983; Sibler, 1978).

Gravely separates the process of professionalization from the "being" a professional. When professionalization was first being studied early judgments about how an occupation becomes a profession revolved around traits and other innate criteria. It was as if the occupation was judged a profession on the most superficial criteria. "Generally, most, if not all, occupational sociologists now agree that the important question is not whether, but how an occupation achieves professional

status" (Gravely, 1983, pp. 6-7). This is a major conceptual problem which has directly impacted on the perception of professionalism in the field of continuing education. There is little empirical research or data to explain, to any degree of acceptance, the degree of professionalization in continuing education (Gravely, 1983).

Houle (1980) in researching professionalism in continuing education found three concepts of professionalism having limited impact on continuing education activities; 1) the attributes which suggested or advocated the study of knowledge as a means to achieve power, prestige and an aura of mystery, 2) a black-white view of continuing education as either a profession or a non-profession, 3) a view of continuing education as a static concept. He viewed continuing education and professionalization as dynamic and every changing. If continuing education is not a profession now, then it could become one through continual growth (Houle, 1980).

There is an additional schism within the field of continuing education, dividing many members as to the 'how' in achieving the additional education in the upgrading of their academic knowledge. One group of continuing educators believe that part and parcel of professionalism is mandatory continuing education (Mattran, 1981). Another vocal group believes that professionalism and individual members of that profession should voluntarily participate in continuing education (Rockhill, 1981).

Competencies needed by adult educators have been investigated in a dissertation by Thurman White (1951). White came to the conclusion that the skills needed by "leaders" in general were roughly the same as the skills needed and sought by continuing educators. He arrived at this conclusion by comparing the course topics selected from in-service training with the courses needed in programs sponsored by the American Association of University Women (AAUW) of public schools and

training directors (White; Ponquinette, 1981).

A review of the literature on this issue shows that neither the professional associations nor many of the continuing education professionals are in solid agreement. Currently neither of the two dominant continuing education professional associations, National University Continuing Education Association nor the American Association for Adult and Continuing Education, accepts the view of mandatory continuing education or certification as a solution to keeping updated in the field. Instead these groups use voluntary awareness of the need for continuing education through the sponsoring of a great variety of different education experiences as the means to encourage this important self-development activity. This then, would obviate the need for taking a formal stand on this divisive issue. (Rampp & Nolan, 1987).

Harrington (1979) and Houle (1980) believe that the professional level of the field practitioners in continuing education can be maintained through the commitment and motivation by the individuals in the field themselves. Additionally, a continuing educator's commitment to the field and the concommitment needs of society will voluntarily draw them to these classes (Houle, 1980). As students, continuing educators are well-motivated, and have a need for the new knowledge. Mandates to get this new knowledge is largely unnecessary (Harrington, 1979).

Apps (1980), warned of a self-serving problem which could develop if a ground swell of legislation evolved which mandated continuing education. Professionals could be required to participate in continuing education as a means to maintain their right to practice. Apps, stated; "Because a professional has new knowledge does not assure that the professional will be more competent. At the present time, every state

mandates some forms of continuing education for its professionals." (1980, p.5) Apps continued, saying "Of course, with mandated continuing education, providers of educational opportunities meeting the mandated requirements stand to benefit greatly from increased enrollments." (1980, p.6).

Robertson (1980) agreed, believing that the market would be the best regulation. His findings were that continuing educational professionals tend to reflect the demands of the field; that of being entrepreneurs in a competitive market. These professionals know that their programs are regulated, not by the school terms of high schools, but by the ebb and flow of economic supply and demand. According to Robertson, the continuing educational professional, guided by program demands, has had to learn self-interest in order to maintain program self-sufficiency (1980).

In summary, the professional status of continuing educators have been examined. Various researchers believe the controversy tends to revolve around whether professionalization should be mandated or a voluntary choice (Harrington, 1979; Mattran, 1981; Rockhill, 1981).

Organization and Administration in Continuing Education

A crucial role in continuing education organization will be the leadership talent it can attract to its ranks. These leaders will be required to integrate the myriad programs and diverse delivery systems into a university structure not totally suited to receive them. These same leaders will create and foster:

1) goals and objective to address the concerns of administration, the program and clients.

2) programming needs to carefully address multi-disciplinary teams sensitive to these same clients, programs and to society.

3) centralized management control to maintain growth via decentralized activities (Bramblett, 1977).

Within the public university a few organizational units appear to benefit from centralization. This is even more true for continuing education. Conter (1977) believed that only through centralization could continuing education take full advantage of the stability, resources, experience and image of the main campus. Organization theory supports centralization, in this case for continuing education, when certain conditions are met:

1) existence of a homogeneous product or service;

2) stable or predictable outside environment;

3) a volume of activity to justify this kind of grouping;

4) availability of specialized personnel needed to maintain a centralized organization, i.e. common process units;

5) availability of administrative leaders with the experience and training to develop and make decisions in a centralized unit; and,

6) internal and external support for this kind of structure.

Specific advantages for centralization, according to Conter, are the:

1) efficiency and cost effectiveness;

2) creation of experienced specialist;

3) evolving of unified institutional identity and image;

4) ability to develop fast and appropriate responses to environmental changes, and;

5) presence of advocates for the continuing education and non-traditional student to the main campus (Conter, 1977).

Crispin (1979) studied the decision-making structure of units serving predominantly part-time students and explored whether such structures are better off centralized or decentralized. Basing his study on the dualism (centralization and decentralization) common to institutions of higher education, Crispin sought to see what variables impacted on the degree of decentralization which could occur in continuing education. He reported that neither of the two basic components, administrative centralization nor academic centralization, or any other variables for that matter, could be proven to show that these two elements operated independent of the other. Crispin inadvertently showed that centralization involved both the administrative and academic elements, indicating one organizational need cannot separate these two elements in university continuing education organizational and structural considerations. In other words, unless the university or other outside competing influence wants to establish a continuing education unit with only one of the dualistic elements, administrative or academic, such an organization would be, at a minimum, be very loosely affiliated with the university proper if it was to have any degree of program or administrative congruence. (Crispin, 1979).

Communication and coordination are the major elements for administrative success between continuing education and main campus. (Ponquinette, 1981) Under a centralized approach there can be a more effective use of resources, staff and facilities.

Using a centralized organization structure allows for mutual assistance across programs lines from the other professional staff, adding their individual expertise in solving problems. The bottom line is an effective and efficient use of universities' resources (Spearly, 1977).

Frandson (1977), in exploring centralization of continuing education units, says that the dynamics and impactors on continuing education are too multifunctional and diverse to be adequately explained or addressed in a satisfactory manner. Using the phenomenalogical approach goes far in providing a solid base for justifying centralization of continuing education units.

Being more at risk in having their resources and budgets reduced in times of retrenchment, continuing education units have developed an ability to be more adaptable and flexible in their program responsibilities. Centralization deserves credit for this. Adaptability and flexibility are salient features of a good continuing education program (Rubin, 1970).

One of the major institutionalized drawbacks to pluralism spoken to above by Crispin (1979) is that continuing education ideals at the program level tend to work best in a decentralized and loose framework. This aspect of pluralism, according to Shaw (1969) could encourage inefficiency in the expenditure of resources allocated by the university.

The flexible nature of "continuing education" has given rise to a tendency to develop new institutional structures with each new problem or whenever a new purpose or need is identified. This image is heightened because continuing education is never found as a separate entity; but always attached, as a sub-unit, to an institution having related, but different educational purposes (Ponquinette, 1981).

The structural pattern of the various continuing education sub-units vary widely depending on their specific role or overall mission in relation to the university. Partial evidence of this is visible when comparing the role and title of the director of continuing education, with his/her diverse assignments in functions and responsibility

(Gulick & Urwick, 1937; Hubka, 1983). The director position, while similar to the main campus department chair, does have some different roles and responsibilities (Henry, 1981; Siever, Loomis & Neidt, 1972; Simon, 1977).

Organizational goals are important to continuing education operations. Appropriately established goals can give the unit its orientation and focus, illustrating the state of affairs being attempted by the organization. (Etzioni, 1975; Smith, 1987). Etzioni stated in his research that a common mistake in developing goals for this kind of organization is comparing the stated goals against evaluation criteria at different levels--the real state and the ideal state. If the goals statements are mixed in their writing, they will be next to useless and become a burden to full program realization.

While there is no reason for the program goals/missions of continuing education units to be comparable with the main university, such similarity can be a main determinant of the basic organizational structure of the office or division of continuing education. The ways and means by which continuing education units relate to the community should mirror, in some degree, the manner by which the main land-grant university relates to the community (Hubka, 1983).

Governance in continuing education organizations today are impacted by a variety of outside stakeholders. Some of these stakeholders who should directly share in the governance of continuing education are: 1) those whose concerns are most affected by continuing education activities; 2) those who are the most competent in continuing education should have a proportional voice in the use of this competence; 3) those whose cooperation is essential to the effectiveness of the continuing education operation; 4) those who had similar goals should have a place in governing; and, 5) those whose authority and resources created and sustain the continuing

education organization making possible the program and learning opportunities, are entitled to further their purposes through participation (Keeton, 1971).

Summary. The literature indicates that continuing education is experiencing some confusion and false starts in ways to best organize and structure their programs. Two ways to organize continuing education operations are dominant; a decentralized and a centralized structure (Frandson, 1977; Shaw, 1969)

University Relations and Continuing Education

According to Ratchford (1977), continuing education in a university setting must be placed within the organizational structure according to continuing education's main mission.

Continuing education serves the education needs of predominantly non-matriculated students. Continuing education units are usually a sub-part of a main campus, a college or more often a university. While continuing education is always a subordinate element in the university it is also usually somewhat independent because of an unusual financial structure and the very different clientele it has as a target audience (Policy Perspectives, 1990; Volkert, 1985).

Continuing education usually has to compete for university resources in a structure weighted against this sub-unit. This competition encompasses faculty positions, facilities and academic status. Tradition has continuing education programs as always being self-sufficient, therefore, the public universities view this sub-unit as a "cash-cow." A cash-cow is a viewpoint that pictures continuing education as a window to the non-academic world via a for-profit educational service. For universities that choose to support continuing education operations as cash cows, the programming, staffing, service areas and university relations are focused on the

profit margin, more than pure service (Volkert, 1985).

Misunderstandings can and do occur between internal university units. These problems can be avoided if both parties first, formalize and then standardize inter-organizational relations and then work to develop open and reciprocal relationships (Sebring, 1977). Additional misunderstandings occurs from each other's environmental pressures and program constraints and is a second cause of inter-organizational conflict.

Two distinct organizational environments result if each organization develops a different management orientation. These divergent orientations lead to inter-organizational conflict (Sebring, 1977). The main university, because of its stability and its insulation from outside political pressures, has developed a more logical, long-range approach to management. Some of these organizational characteristics are; goal orientation, time orientation and, formality of structure (Sebring).

Another important element of university relations is federal-state relations. Thackrey believes that the federal government should be involved in higher education and should, "...pay the full cost of services it buys,...." (1971, p. 97). Further, the federal role should be one which, while substantial, is supportive but not dominant. Thackrey observes that, "...the future of the state university should be thought of as "people-oriented" and "knowledge-oriented" rather than "urban" or "rurally" oriented." (1971, p. 105). In other words, public universities should cooperate with the federal-state in supplying research according to the federal-state needs, but universities, particularly rural land-grant universities should not encourage nor enhance the dichotomy of rural versus urban. Thackery (1971) appears to be concerned that this

over categorization will, in the long-run, harm university relations with their external constituents, like the federal system or state agencies.

Thackrey suggest that when talking about the problems in organizing the continuing education mission to better integrate it with the university:

> There is a possibility that functions, program, responsibilities, will be so dispersed as to arrive at a "common level" among the various institutions of the state {university}. I avoid the terms "common level of mediocrity" or "absence of higher quality" because these involve prestige, elitism, caste. And herein lies part of the problem. We need a new prestige system, or multiple-prestige systems, in American higher education. Institutions have prestige, be recognized, esteemed, (sic) for the quality of their work in terms of defined function. (Thackrey, 1971, p. 108. Parentheses added.)

Summary. The four major elements impacting on continuing education, in part, provide information and data which can be developed into solutions to counter the negative problems shaping programming, professional development, organization and administration, and main campus relations.

It can be seen that in curricular programming the accelerating rate of change causes great unrest (Fowles, 1978) This is evidence of antiquated curricula. Education technology for the new work place needs are also contributing to increase this curriculum instability. This thrust keeps pressure on the need to develop new curriculum models which are more acceptable to the new market audiences.

These same threats are experienced by continuing education professionals. Moreover, an added problem they face is one of facilitating an identity; is continuing education a profession? (Gravely, 1983). While this study does not attempt to address this problem head on, it does outline or frame this issue through presentation and enumeration of some of the more relevant literature.

Peters (1980) discussed various approaches to organizational need. Peters

wrote a book providing balanced information resulting from his examination of the organization and administration of continuing education. Peters' (1980) work is complete in terms of the organization and administration aspect of the study.

The university adapts to becoming a modern university in a new age. The university hopefully will adopt new roles and responsibilities and drop outdated concepts and processes. This adapting university will also integrate continuing education units, programs, ideals and constituents into the mainstream of the campus activities (Crispin, 1979).

Part III: Major Supporting Elements For This Study

Continuing Education and Land-Grant Universities.

Organizational structure and administration of colleges and universities have been molded by a variety of forces (Corson, 1976). Patterns of organization came from western Europe and were modified by American settlers to suit local situations and needs. This tendency still continues. In America there is almost a unique pattern to the organization and administration of institutions of higher education (Andersen, 1976; Davis, 1980).

The land-grant system is one of those significant differences. This uniquely American variation has a long history of excellence, service and adaptability in terms of meeting the needs of society.

The spirit found in the land-grant college movement is ingrained in the growth and progress of our system of colleges.1/ This spirit of land-grant colleges evolved from the social and economic movement of the mid-1800s. The land-grant movement personifies the American ideas of that era. This spirit is found in four processes, those

of: 1) initiative--pioneering; 2) growth--progress; 3) equal opportunity for all--democracy; and, 4) helpfulness--service (Kerr in McCue, 1931).

The American land-grant university is among the most attractive educational institutions for continuing education needs in today's society. The relevance of the land-grant model has a long historical tradition in American education development. From the colonial era to the present twentieth century the land-grant philosophy has been amenable to fostering experimentation and flexibility in educational programming which has been innovative and structurally different to programmingAfter World War II, land-grant colleges and universities were the biggest beneficiaries of the post-war G.I. Bill. Veterans, a million strong, flocked to college campuses. Most of these returning veterans enrolled in land-grant state universities for the practical curricula available. This specific boost to the land-grant institutions propelled them far in advance of other institutions of higher education. Neither the public regional or private universities could match the large numbers of new enrollments. In 1962, the 68 land-grant colleges and universities nation-wide had over 20 percent of the enrollments in the United States. Other institutions of higher education have never been able to regain this numerical superiority (Davis, 1980).

1/ The phrase "land-grant model" is used in the holistic sense to refer to the unique characteristics common to all land-grant educational institutions. Individually, the land-grant education institution historically developed differently from other public institutions and in detail developed differently from each other giving rise to several sub-models. Some of the sub-models are; "The Cornell Model," "The Black College Model," "The Mid-Western Model," and so forth. In this study the specific, unique idiosyncrasies of these land-grant universities are collapsed and generalized for brevity. There will be some instances in this study where these same characteristics will be emphasized in illustration as in talking about a "Mid-Western Model," from an urban model (Lungu, 1980, p.2). These differences do not exclude shared characteristics in continuing education program development and operation. of the past (Lungu, 1980).

Characteristics of Land-Grant Institutions. The unique characteristics of the land-grant university are sensitive to local state needs. A spillover effect provided many states a comprehensive public secondary school system; enhancing a special relationship with people, industries and government. From these patterns developed two tracks for land-grant universities. There were the states which created a separate land-grant institution separate from the state university and there were the states that folded the land-grant ideal into existing university structures. In some states it is clear which is the "aggie" university and which is not. Moos (1982) believed that a revitalization of the land-grant ideal and aim would go far in raising the quality of higher education. Land-grant universities should keep or rekindle the original purposes of their democratic history: 1) agriculture should remain as a primary concern; 2) engineering and applied sciences should be intensified; 3) education for work should continue as a major emphasis; 4) instruction methodologies should focus on acquisition of learning skills; 5) access should remain flexible and open; 6) these universities should revive service to the state, network more with the public schools systems, and remain aligned with the military, even in peacetime (Moos, 1982).

Land-Grant Universities of the Future. The rejuvenation and expansion of state universities through the Morrill Act changed all of this forever in at least three ways.

First, the act urged "the liberal and practical education" of students in "the several pursuits and professions of life." The primary objective was to use public higher education as a preparation for work more than for artful leisure or character formation (DiCroce, 1984; Moos, 1982, p.32).

Second, the Morrill Act changed instruction in higher education. Land-grant

colleges brought discussion classes, experiments, field trips, and laboratories to higher education. It was their purpose to train students less to quote Thucydides, Virgil, or Tennyson than to use their senses, experience, and the scientific method in their working lives as farmers, engineers, businessmen, educators, and even as politicians (Moos, 1982).

Third, equally as important as changing the content and teaching styles was Congress' determination to open higher education to the children of clerks, artisans, storekeepers, farmers, miners, mechanics, teachers, and laborers as well as to the children of clergymen, lawyers, physicians, and wealthy merchants (Moos, 1982).

Summary. A supporting element of this study is the important role of the land-grant university. By examining select historical highlights of these uniquely American institutions it can be seen that they are generally representative of all public universities. For this study it was important that land-grant institutions serve as the focus of this study. The long tradition of service through experimental agriculture and scientific research was a critical compliment to the service mission of continuing education (Lungu, 1980; Moos, 1982). Both have continuing education programs which are similar. These similarities allow comparisons across institutional boundaries. Using land-grant universities as the primary focus allows better overall study control.

Part IV: Continuing Education and the Applicability of the Delphi Technique

The Delphi Technique is considered to still be in its infancy (Helmer, 1967; Linstone & Turoff, 1975). If anything is true about Delphi, it is that in its design and use the Delphi is more of an art than a science. The Delphi technique originated at

RAND Corporation around 1948. (Pill, 1971; Sackman, 1975). The first Delphi study was an application of expert opinion to the selection by a panel, of the most likely target for Soviet attack using atomic bombs in the continental United States. The Delphi process tries to provide the individual with the greatest degree of individuality and freedom in terms of research expression and process flexibility. (Brooks, 1979; Linstone & Turoff, 1975; Weaver, 1972, 1970, 1966).

Delphi is a process of inquiry starting with an assumption, seeking a consideration. It is based in Lockean inquiry. This mode of inquiry has the following characteristics:

1. Truth is experiential, i.e. truth of communication is entirely based in the experiences related to that specific communication; and, 2. Truth does not rest on any prior assumptions, just the opposite, i.e. raw data justifies theory, not theory justifying raw data. These assumptions can only be justified through "direct observation." The Lockean inquiry is built bottom-up, raw data, assumptions and then theory or conclusions (Linstone & Turoff, 1975, p. 21).

The Delphi was invented in the late 1940s for the purpose of estimating the probable effects of a massive atomic bombing attack on the United States (Dalkey & Helmer, 1963; Helmer, 1967; Linstone & Turoff, 1975). The first Delphi study was an application of expert opinion to the selection, by the panel, of a most likely target for Soviet attack using atomic bombs in the continental United States (Linstone & Turoff, 1975).

The Delphi is a procedure for structuring a series of communications in a process which includes a large group, ten or hundreds, are asked to "vote" on when or what future events will occur or will be. One of the premises of this technique is the

necessity for a large number of expert judgments to properly treat the issue at hand (Cyphert and Gant, 1970; Linstone & Turoff, 1975; Welty, 1971). According to Preble (1984) "Delphi is a consensus technique that provides for a systematic solicitation and collation of judgments on a particular topic" (p. 157).

Characteristics of the Delphi

The Delphi Technique possesses broad characteristics which are used in varying degrees in qualitative research (Jick, 1979; Van Dalen, 1979). At a minimum, these select elements are found in studies using a Delphi Technique: 1) The Delphi is used as a polling procedure, and; 2) The Delphi in maintaining scientific rigor has four phases; a) Phase one is an exploration of the subject under study where panel members contribute data they believe pertinent, b) Phase two is a process of reaching an understanding of how the group views the subject under study, c) Phase three brings out the underlying reasons for the differences and possible means to evaluate them, d) Phase four, the final element, is final evaluation reached where the results are fed back to the panel for confirmation (Linstone & Turoff, 1975).

The Delphi seems like a very simple concept that can easily be employed to reach reasonable conclusions. Because of this many researchers tend to jump over parts of the procedure and are disappointed at the results. A Delphi can fail, just as an experimental design can fail (Martino, 1975, 1983). Some of the reasons for failure are: (1) Imposing the researchers views and preconceptions of a problem upon the panel by over-specifying the Delphi statement; (2) Use of poor techniques in summarizing and presenting the group response; (3) Failure to ensure common interpretation of the evaluation scales used in the process; (4) Ignoring areas of disagreement; not exploring these areas of disagreement for underlying significance;

and, (5) Underestimating the rigor of the Delphi methodology (Linstone & Turoff, 1975)

Another class of criticism of the Delphi which can cause disappointing results is the "virtual" problem. "Virtual" problems are those that do not, in and of themselves, affect the technique but sabotage the process. A virtual problem could be not selecting a "good" group. This problem is present in any kind of research methodology where group communication is a part of the design. In a Delphi this problem deserves special consideration. Another virtual problem is that one Delphi design is taken as the model for all Delphi designs. In Delphi, the design is decided by the problem. Not any one Delphi is appropriate for all problems. A third virtual problem is honesty. While honesty of the panel cannot be controlled, the researcher can be true to the study requirements. A final virtual problem may arise from misunderstandings in language and logic if the panel is a cross-section of disciplines. Selecting panel members from the same general discipline may avoid this pitfall (Linstone & Turoff, 1975).

The proliferation of Delphi applications has not been paralleled by an equal increase in the methodological rigor or process sophistication. Popularization of the Delphi, akin to a "new toy", may have diluted the original methodology as a characteristic of a "raw numbers" studies conducted in a wide variety of disciplines (Preble, 1984, p. 157).

> Studies on the rigor of selection of panels reach a conclusion that, "...outside panelists were likely to be more qualified or expert than any inside panelist that could be found. There was no evidence...to indicate that any determination of inside or outside expertise was made. An internal review of role specialties, years of experience and familiarity with the area to be studied might have revealed that sufficient diversity and the required expertise did in fact exist...." (Preble, 1984, pp. 158-159)

Summary. The Delphi Technique was a key element of this study because it was created to examine either ambiguous or unknown issues or events. This study includes both of these elements.

Chapter Summary

The literature evolved into four important sub-categories providing a framework supporting the Delphi panel's critical influences. Such a framework enhanced the examination of the role of continuing education in land-grant universities in the 21st Century. These four sub-categories are; programming or curriculum, professionalization issues, organization and administration of continuing education, and university relations issues. These four categorical areas wield major influences on the practice of continuing education. Either singly or together these categories could shape continuing education for the 21st Century.

Two supporting areas of this study were also carefully examined in the literature review, the land-grant university and the Delphi Technique. In the former, the research interest focused on history, characteristics and current development. It was known that land-grant institutions were historically grounded in a service mission. Continuing education has a compatible orientation of public service, through the field is not as mature as the land-grant university. This compatibility forms a natural symbiotic relationship, one supporting the other.

The Delphi Technique is a qualitative research method which adheres to most aspects of the scientific method. Three factors as applied to this study necessitated a fairly extensive review of the research literature.

Chapter III

Methodology

The purpose of this study was to identify the critical influences impacting on continuing education in the early decades of the 21st Century. In pursuit of this purpose an appropriate research methodology was identified which produced a listing and description of the organization and goals that continuing education organizations in land-grant and other public universities should be pursuing as they move toward the 21st Century. The main research tool was the Delphi Technique. It was implemented with a 17 member expert panel.

This methodology chapter will explain the research design, review the research question and review the procedures used to implement the research methodology (Merriam, 1988; Merriam & Simpson, 1984).

Research Question

The research question is:

What are the critical influences that will impact continuing education in the 21st Century?

Research Design

In Round One of this Delphi study, the panel of 17 experts produced a list of 166 critical influences. Through careful analysis, these 166 statements provided by the respondents were reduced to 147 critical influences. Care was taken to insure that the intent of all the statements were included, although many were consolidated and reduced into a more readable form. At Appendix B are the 147 critical influences

identified by the 17 member Delphi panel. This list of influences, unrated by the panel, represented the overall list of influences deemed important by at least some of the 17 panel members.

In order to provide a framework for analyzing the critical influences, they were grouped into categories; Technology, Demographics, Society, Curriculum, University Relations, International, Higher Education, Organization and Administration, General, Professional and Funding. Some of the influence statements overlapped across categories. Although the categories were established to reflect relatively discrete groupings from the original 147 edited statements.

The fundamental purpose of the Delphi process is to attempt to achieve consensus among experts dealing with obscure or ambiguous issues. Through the description of the data by mean and mode, the consensus was viewed from several perspectives.

During Round Two and Round Three of the Delphi process, the following rating scale was used to solicit opinions from the respondents concerning the likelihood of each of the critical influences occurring during the next decade:

LIKELIHOOD THAT CRITICAL INFLUENCE WILL OCCUR

1 certain to occur
2 unlikely to occur
3 uncertain
4 very likely to occur
5 certain to occur

This kind of rating scale was successfully used by Davis (1980) and provided the 17 member Delphi panel with sufficient distracters to draw out a panel members opinion toward the different critical influences. This scale breakdown is consistent with the instructions provided to the 17 Delphi panel members in the Delphi rounds.

The analysis used to interpret the research question was analyzed with frequency distributions. As a means of reducing the total number of critical influences identified as important, i.e., 147, the mean and mode were used to reduce the total number of critical influences and additionally highlight the more important critical influences.

Overview of the Methodology

The Delphi Technique was used to poll a select group of field practitioners for their opinions about the role of continuing education in the 21st Century. The Delphi Technique methodology is a qualitative research methodology. The Delphi Technique historically was developed to improve answers to obscure or ambiguous problems through group problem solving processes (Thomas, 1972).

The Delphi has three features which contribute to validity. They are anonymity, controlled feedback, and a statistical group response capability (Pill, 1971). Anonymity was assured in that the Delphi processes were so implemented that the selected participants never meet in person nor did they know each other's names. Feedback was controlled through a series of three separate, sequenced rounds where a set of general response statements evolved into a grouping of ranked issues. The third part of the Delphi was application of statistical methods to evaluate the statistical significance of the differences or the spread of differences of opinion among the participants. The study was planned for three rounds to arrive at consensus (Helmer, 1974; Jick, 1979; Linstone & Turoff, 1975; Martino, 1975; Mosher, 1967; Thomas, 1972; Pill, 1971; Van Dalen, 1979).

Delphi Rounds

Three Delphi rounds were used in this study. Both Brooks (1979) and Cyphert

and Gant (1970) suggest that three mailings are generally sufficient to achieve the consensus desired. Practically no change was expected with the addition of a fourth mailing (Pill, 1971).

Criteria for Participation

There were three criteria used in the identification and selection of the 17 member Delphi panel to serve on this study. First, a mandatory requirement was that the individual identified as a possible participant would have more than five (5) years of continuing education practice. Second, it would be preferred, but not required, that a panel prospect be employed at a land-grant university. And, third, it would be preferred that the prospective panel member be active in the field of continuing education. Prospective panel members were selected through a voluntary referral method. The person doing the referring was asked to refer individuals known to himself or herself as being active in the field.

Selection of the Panel

The panel of experts for this study was identified through a process of referral. Delbecq, Van de Ven, and Gustafson (1974) noted that the Delphi requires considerable participant effort. They recommend allowing respondents to volunteer themselves as it would increase motivation. Being asked to volunteer has a degree of flattery associated with it, to be considered an "expert" by others. This was accomplished by obtaining three original nominations from this researcher's dissertation committee and the subsequent contacting each of these prospects to confirm their interest in participating in this study. All individuals were asked two questions. First, they were asked to refer the researcher to at least three other professionals known to themselves as possible nominations for the Delphi panel.

Second, each individual was asked to participate. This process of referral continued until twenty (20) panel members had agreed to participate. Each completed an "Agreement to Participate Form" (See Appendix C).

Obtain an Agreement to Serve on The Panel

The size of this sample, N=17, made it prohibitive to use a blind series of mailings. Each person who signed and returned the participation agreement would get a summary of the findings. A return envelope was provided. Anonymity was guaranteed. Control numbers were used for doing a follow-up on all non-respondents.

Delphi Panel Orientation

The Delphi Technique was not universally well known. No anticipated prior knowledge was assumed on the part of the prospective participant. To avoid a ragged knowledge level or a distorted understanding of the Delphi Technique process a short, concise narrative was provided explaining the process, history, number of rounds involved and an outline of mutual expectations between them and the researcher. This document was sent as an attachment to Round One (See Appendix L).

Delphi Statement

A neutral Delphi statement was developed. The statement was written in a medium length to produce a high consensus. Statements of twenty to twenty-five words produce peak consensus (Linstone & Turoff, 1975).

For this study the researcher randomly selected five (5) of the twenty (20) experts for a pilot run on the Delphi Statement. These pilot volunteers were asked to examine the proposed Delphi Statement against the criteria listed above. Three (3) panel members returned their Delphi Statements. All of the returned Delphi Statement forms indicated that the statement need not be changed and was

appropriate for the study. The Delphi Statement remained unchanged. The Delphi statement as approved was:

> "There are many influences which taken together, or singly, will change the field of continuing education in the 21st Century. In your own opinion what are these influences which will change continuing education as we now know it."

Questionnaire Design

In rounds two and three where a questionnaire was used, the design of the questionnaire was to help the panelist make more informed decisions. The design format of the instrument minimized distractions. There was ample space on the questionnaire to allow the panelist to write comments or arguments.

Workload Involved in the Delphi Sequence

The total workload for each panelist was calculated at three professional manhours. Individual participant time spent on each of the Delphi Rounds was estimated to take no longer than an hour.

Turnaround Time Between Questionnaires

Experience outlined in other studies indicated that 15 days was needed between rounds if the participant number was less than 100 (Helmer, 1967; Linstone and Turoff, 1975). The 15 day turnaround time began on the day the questionnaire was postmarked at the U.S. Post Office. At the close-of-business (COB) on the 15th day the researcher called to remind any panel member who did not have his/her questionnaire returned to the researcher by the allotted time.

Scale Development

The best type of scale available is the Likert scale format. A five-point, Likert scale was used (1=certain not to occur, 5=certain to occur). This type of scale would be easily understood by the 17 member Delphi panel. With the ends of the scale

anchored as it was, it became a semantic differential scale and had interval properties, i.e., value between each integer was "1". This indicates that the value between each integer was the same, thus indicating an interval scale (Likert, 1967; Linstone & Turoff, 1975).

The Likert-scale method was quick to complete, easy to understand, and psychologically comfortable. The panelists' task was easy since he or she must rank only one item at a time. Using the "Law of Comparative Judgment," the scale values for each statement for each round were derived. These values were reflected on a scale numbered from one to five. Because of the feedback, the ratings from each round were not independent. Each round in some degree was influenced by the preceding round. (Linstone & Turoff, 1975).

Data Analysis

The data derived through the three round Delphi Technique was analyzed manually through arranging the data into matrices providing frequency distributions for both the Round Two and Round Three. The manual method was used for three reasons. First, the small number of participants on the Delphi panel (17) made manual computation feasible. Second, the researcher did not have appropriate computer software to implement a computer based analysis. Third, doing the computations manually allowed the researcher to get a real feeling about the trends the data analysis revealed. A third party was identified at a distant land-grant university with the appropriate analytical skills agreed to be a disinterested party in this study was used to re-check the computations used in the data analysis. Dr. Charles Heerman, Professor, Department of Curriculum and Instruction, College of Education, from the Mid-Western. Big-8 Conference university, Kansas State

University thoroughly examined the draft tables and their computations to ensure accuracy in the reporting. Dr. Heerman has over fifteen (15) years experience in both experimental and qualitative research methods.

As a part of this methodology the mean scores for each of the 147 critical influence statements was examined to determine the distribution of the scores. Based on the distribution of the scores the researcher constructed a new distribution using a combination of methods which incorporate the mode and the percent of the critical influence statements received a rating of 4 or 5.

The mode and mean were selected as the measures to assess group consensus in this study. The mode was selected because of its compatibility with the Delphi Technique, in that it represents a movement toward consensus. The mean was used as an additional measure of central tendency, which was particularly useful for rank ordering the influences statements and analyzing those statements where a clear-cut mode did not appear. The mode and mean scores served as differentiating criteria, sorting out important critical influence statements from non-important critical influence statements.

Data analysis provided a description of the various influences, including those most likely to influence and those least likely to influence future events in continuing education, i.e., programming, professionalism, organizational and administrative structure, and university relations.

Data Assembly

In terms of collecting and assembling the raw data from the Delphi process used in this study, the following procedures were used: (1) Each panel member was asked to write what he or she considers to be five to ten important events in reaction

to the Delphi statement; (2) These important events were collected and combined into one unranked list; (3) Similar ideas and obvious duplication were addressed and then grouped into sub-groups and labeled; (4) These labeled sub-groups were then distributed to the 17 member panel in a second round as a ranked list-questionnaire; (5) The panel rated these sub-groups using a five point, Likert scale. This scale represents intervals. Each interval had the weight of "1"; (6) The panel responses were collected and analyzed. These responses were categorized and returned to the panel for verification. Any changes in this second round was ranked and analyzed; (7) The 17 panel responses were collected and analyzed in a third round. Final analysis and categories were sent to the respondents for a last examination.

Monitoring The Delphi Processes

The monitoring of this process was critical. Inadequate or inefficient oversight could damage the quality of data. To assure adequate monitoring occurred, the following procedures were followed: (1) The researcher was alert for ambivalent wording or phrasing in presenting statements to the panel, i.e. two statements appearing as one, or vague wording which could lead to confusion; (2) When editing the Delphi response, great care given to preserve the intent of the original responses; (3) Careful editing was used where a response had one meaning in one round and another meaning is a subsequent round; (4) The researcher laid out the entire process of analyzing the data for all rounds before, finalizing the design. Pre-planning was designed to surface any gross problems in the instrument or in design of the process itself; (5) Model tables were designed replicating tables and process used by Davis (1980). A two axis grid was used. The down axis reflected the critical influences and the across axis reflected the descriptive statistics, i.e, mean and mode, to aid the

analyzing process so as to allow the tabulation of the data as it comes in. This kept the process from being rushed and avoided tardiness in the timeline; (6) Careful design allowed for keeping a running tabulation of how different groups/subgroups vote on specific items. This activity produced some serendipity where the researcher let the panel know that polarizations were developing along unusual lines, i.e. some panel members' ratings; (7) The 17 member panel was representative of diverse continuing education professional backgrounds. It was easier to encourage a panel where sub-disciplines were equally represented; and, (8) The Delphi Technique Statement was pre-tested. This ensured a non-biased Delphi Statement. Finally, the whole Delphi process was examined and critiqued by a non-participating professional colleague before it was finalized (Linstone & Turoff, 1975).

Summary of the Delphi Sequence

The Delphi Technique, to be representative and accurate, was executed using a rigid set of procedures like those described above. Generally, these procedures were outlined within a framework of three rounds of interrogation. These rounds followed this process sequence:

Round One. The Delphi statement was presented as neutrally as possible to the 17 member Delphi panel; "There are many influences which taken together, or singly, will change the field of continuing education in the 21st Century. In your own opinion what are these influences which will change continuing education as we now know it." The final 17 panel members developed a number, up to a ceiling of ten statements reflecting the future position of continuing education. The panelist were selected because of their field-based expertise or power-position they held in continuing education. The 17 Delphi panel members were presumed to know as much

about the challenges confronting continuing education in the 21st Century as the researcher. Care was taken not to present a Delphi statement which was too long or too structured. The response statements were returned in envelopes provided by the 17 panel members within two weeks. The statements were consolidated into a single unranked list. For convenience a grouping of seven (7) original categories was created. This was later refined into eleven (11) categories. This list of responses became the second round (Martino, 1975).

Round Two. The panelist were presented with a consolidated list of the Delphi statements by category. When these responses were collected and statistically treated, a questionnaire was prepared showing the new values of the original list in terms of overall priority. The panelist ranked these items individually using the five-point, Likert scale. Individual rankings subsequently were arrayed in terms of the overall consensus. Any anomalies which surfaced as a result of the analysis were addressed individually and a summary sheet developed for each critical influence statement. The panelist received a frequency distribution. This resulting questionnaire with frequency distribution was the third round.

Round Three. The panelist were presented with a new questionnaire with a built-in frequency distribution. In other words, this last questionnaire listed the results from round two. For each individual panel member the researcher marked their responses thusly, "4". This allowed the 17 panel members to see how whole Delphi panel marked the critical influence and also they could see how they as individuals voted. This built-in frequency distribution was used by the researcher to help individual panel members move toward consensus. Panel members could see their marking of a critical influence in relation to the other panel members. Panel

members were asked to review the questionnaire and formulate any alternate responses where they significantly disagree with previous ranking. "Significantly" disagree was an ambiguous term and each panelist was left to their own devices in its interpretation. This data was collected and analyzed. Particular attention was paid to any category statistically different from Round Two (Martino, 1975).

Chapter Summary

The Delphi Technique, as discussed above, was judged the most appropriate for this kind of study. Delphi can deal with the ambiguity of the challenges facing continuing education in the early decades of the 21st Century. History and other research studies verified the appropriateness of this methodology. The guidelines were developed to assure academic rigor and were thoroughly and rigorously applied in the execution. An analysis of the data included a frequency distribution, citing mode and mean, as the measures of central tendency helped to arrive at consensus, is presented in Chapter IV.

Chapter IV

Data Presentation And Analysis

The purpose of this study was to identify the critical influences impacting on continuing education in the early decades of the 21st Century. This chapter supports this purpose in presenting an analysis of the data developed from this Delphi study. As a means to organize the data collected individual summary sheet analysis was developed on each of the 147 critical influences identified by the Delphi panelist during Round One. These summary sheets are included in Appendix K and contain the basic descriptive statistics required for the remainder of the data analysis. This chapter on data presentation and analysis will be divided into four segments; data presentation, data analysis, critical influence summary analysis sheets, and a chapter summary.

Data Presentation

The findings are reported through the presentation and reporting of five tables;

1) A Summary of Critical Influence Categories Produced By The 17 member panel.

2) Mean, Mode and Frequency for Round Three.

3) Frequencies For The Influence Statements Reported By The Mean Scores

4) Summary Of Influence Statements Selected By Procedure 1 (100% Rating on Items 4 and 5) and Procedure 2 (Statements With A

Mode of 5 In Which 80% of The Responses were 4 or 5).

5) Influence Statements Deemed Critical: Reported By Percent of Final List, Percent of Category, and Percent of Original List.

Rounds One and Two are located in the Appendices. Table 1, below, is a display of the critical influences by category produced by the Round Three Delphi panel.

The categories were developed from the wording of the critical influence statements. Statements that talked about curriculum problems were assigned to the Curriculum category. Those statements that addressed concerns about organization and administration influences were assigned to Organization and Administration category, and so on. From this exercise the various categories surfaced as a response to the primary focus of the critical influence statements. Critical influence statements that did not fit into any of the other categories and did not comprise a pair were assigned the General category. The final category list was made up of eleven (11) categories (See Tables 1 and 5 below).

Table 2 is a display of mean, mode and frequencies for Round Three. Based on the information from this table a frequency count was made on the Mean and 78 critical influence statements were identified as having a Mean score above 4.0. This is verified by Table 3.

Table 3 data indicates a high consensus and produced more critical influence statements than was useful or manageable. As a result of this finding the researcher developed criteria or procedures which would be used in sequence to reduce the number of critical influence statements to a manageable size.

TABLE 1

A Summary of Critical Influence Categories Produced By The Delphi Panel

Category	Category Title	Frequency of Influences
A.	General	9
B.	Demographics	19
C.	Curriculum	13
D.	Professionalism	19
E.	Organization & Administration	16
F.	University Relations	9
G.	Technology	20
H.	International	11
I.	Funding	9
J.	Higher Education	9
K.	Society	13
	Total (N =)	147

The sequence of procedures are:

a. First, critical influence statements were to be selected for which 100% of the 17 member panel rated the item at 4 or 5.

b. Second, critical influence statements were to be selected for which there was a mode of 5, and 80% (n=14) of the panelists had indicated responses of 4 or 5.

c. Third, critical influence statements were to be selected for which there was a mode of 4, and 80% (n=14) of the panelists had indicated responses of 4 and 5.

In applying criterion "a" 17 critical influence statements were found. In applying criterion "b" 17 additional critical influence statements were identified. In applying criterion "c" an additional 47 critical influence statements were located.

TABLE 2
Mean, Mode, and Frequencies for Round Three
N= 17

Statement No.	Mean	Mode	Frequencies 1	2	3	4	5
1	3.94	4	0	0	5	8	4
2	3.59	3,4	0	1	7	7	2
3	4.06	4,5	0	0	5	6	6
4	3.29	4	2	3	0	12	0
5	3.88	4	1	0	3	9	4
6	4.29	5	1	0	3	2	11
7	4.18	4	0	1	0	10	6
8	4.18	4	0	0	2	10	5
9	3.35	4	0	2	7	8	0
10	3.94	4	0	0	2	14	1
11	3.82	4	0	0	5	10	2
12	4.53	5	0	0	0	8	9
13	4.24	4	0	0	1	11	5
14	4.65	5	0	0	0	6	11
15	3.18	3	1	2	8	5	11
16	4.65	5	0	0	0	6	11
17	4.65	5	0	0	0	6	11
18	3.71	4	0	0	6	10	1
19	4.24	4	0	0	1	11	5
20	3.47	4	1	1	5	9	1
21	3.94	4	0	2	2	8	5
22	4.29	4	0	0	1	10	6
23	3.71	4	0	2	4	8	3
24	3.53	4	1	2	3	9	2
25	4.53	5	0	0	0	8	9
26	4.35	5	1	0	1	5	10
27	4.00	4	1	1	0	10	5
28	4.53	5	0	1	1	3	12
29	3.06	3	0	3	11	2	1
30	3.94	4	0	0	3	12	2
31	4.24	4	0	0	0	13	4
32	2.29	2	1	12	3	0	1
33	2.65	3	2	5	7	3	0
34	2.94	3	1	4	7	5	0
35	3.51	4	1	0	7	9	0
36	4.35	5	0	0	3	5	9
37	4.59	5	0	0	0	7	10
38	3.82	4	0	0	5	10	2

TABLE 2 (continued)

Statement No.	Mean	Mode	Frequencies 1	2	3	4	5
39	3.94	4	0	0	3	11	3
40	4.71	5	0	0	0	5	12
41	4.00	4	0	0	2	13	2
42	3.59	4	0	2	4	10	1
43	3.00	2,3,4	1	5	5	5	1
44	3.71	4	1	0	5	8	3
45	3.82	4	0	1	2	13	1
46	3.82	4	0	1	4	9	3
47	2.59	3	3	4	7	3	0
48	3.59	4	0	0	7	10	0
49	3.76	4	2	0	2	9	4
50	3.59	3,4	0	2	6	6	3
51	2.88	3	0	5	6	5	0
52	2.71	2	1	7	5	4	0
53	3.76	4	1	0	3	11	2
54	3.88	4	0	0	5	0	3
55	3.35	4	1	2	4	10	0
56	3.47	4	0	0	7	9	1
57	2.41	2	3	7	5	1	1
58	2.76	3	0	7	8	1	1
59	3.94	4	1	0	1	12	3
60	3.29	3	0	1	10	6	0
61	3.24	4	1	2	6	8	0
62	4.18	4	0	1	0	11	5
63	4.24	4	0	0	0	13	4
64	4.65	5	0	0	0	6	11
65	4.12	4	1	0	1	9	6
66	3.29	4	0	4	5	7	1
67	3.76	4	0	1	2	14	0
68	4.29	4	0	0	1	10	6
69	3.47	3	0	0	10	6	1
70	3.06	3	2	0	10	5	0
71	3.82	4	0	1	3	11	2
72	4.18	4	0	0	2	10	5
73	2.82	3	1	5	7	4	0
74	2.59	2	1	8	5	3	0
75	3.41	4	1	3	3	8	2
76	3.76	4	0	1	3	12	1
77	3.65	4	1	0	5	9	2
78	4.29	5	1	0	0	8	8

TABLE 2 (continued)

Statement No.	Mean	Mode	Frequencies 1	2	3	4	5
79	4.35	4	0	0	2	11	4
80	4.06	4	0	1	2	9	5
81	4.53	5	0	0	1	6	10
82	4.00	4	1	0	3	7	6
83	4.00	5	0	3	2	4	8
84	4.29	5	0	1	1	7	8
85	3.88	4	1	0	1	13	2
86	4.18	4	0	0	1	12	4
87	3.71	4	0	1	5	9	2
88	4.18	4	0	1	0	11	5
89	3.76	3	1	0	6	5	5
90	4.53	5	0	0	0	8	9
91	4.71	5	0	0	0	5	12
92	4.35	4	0	0	1	9	7
93	4.41	5	0	2	0	4	11
94	3.82	4	0	0	5	10	2
95	4.06	4	0	1	2	9	5
96	4.89	5	0	0	0	2	15
97	4.29	4	0	0	2	8	7
98	4.18	4	0	0	2	10	5
99	3.24	4	1	2	6	8	0
100	4.53	5	0	0	0	8	9
101	4.76	5	0	0	1	2	14
102	4.76	5	0	0	0	4	13
103	4.59	5	0	1	1	2	13
104	4.00	4	0	1	2	10	4
105	4.18	4	0	0	2	10	5
106	4.35	5	0	0	2	7	8
107	4.59	5	0	0	0	7	10
108	2.82	3	2	2	10	3	0
109	3.24	3	0	2	9	6	0
110	4.65	5	0	0	2	2	13
111	4.29	4	0	0	2	8	7
112	4.35	4	0	0	1	9	7
113	4.24	4	0	1	0	10	6
114	4.18	4	0	0	3	8	6
115	4.06	4	0	1	2	9	5
116	4.24	4	0	0	3	7	7
117	4.18	5	0	2	2	4	9
118	4.35	4	0	0	1	9	7

TABLE 2 (continued)

Statement No.	Mean	Mode	Frequencies 1	2	3	4	5
119	4.29	4	0	0	2	8	7
120	3.35	4	1	1	6	9	0
121	4.12	4	0	0	2	11	4
122	4.18	4	0	0	1	12	4
123	4.18	4	0	0	1	12	4
124	4.35	4	0	3	5	9	0
125	2.65	3	1	6	8	2	0
126	3.82	4	0	1	2	13	1
127	4.37	4	1	1	5	9	1
128	4.41	4	1	1	5	9	1
129	4.00	5	0	0	2	6	9
130	3.24	3	1	1	8	7	0
131	4.00	4	0	2	1	9	5
132	4.47	5	0	1	0	6	10
133	3.59	4	1	1	3	11	1
134	3.71	4	0	3	2	9	3
135	3.12	3	1	3	8	3	2
136	4.35	4	0	0	1	9	7
138	4.76	5	0	0	1	2	14
139	4.29	4	0	0	0	12	5
140	4.47	5	0	1	1	4	11
141	2.76	2,3	0	7	7	3	0
142	4.18	4	0	0	2	10	5
143	3.18	3	0	3	9	4	1
144	4.59	5	0	0	1	5	11
145	3.53	3	1	0	8	5	3
146	4.00	4	0	2	1	9	5
147	4.35	5	0	2	0	5	10

Taken together, a total of 81 critical influence statements were identified. This number of critical influences were too many to analyze so criterion "c" was dropped. Final decisions were based using criteria "a" and "b". The 34 resulting critical influence statements are presented at Table 4.

TABLE 3
Frequencies For The Influence Statements Reported
By Mean Scores.

Rating	Frequency
4.89	1
4.76	3
4.71	2
4.65	4
4.59	4
4.53	6
4.47	2
4.41	2
4.37	1
4.35	10
4.29	9
4.24	6
4.18	13
4.12	2
4.06	4
4.00	8
3.94	6 (73 Mean)
3.88	3
3.82	9
3.76	5
3.71	5
3.65	2
3.59	6
3.53	2
3.51	1
3.47	3
3.41	1
3.35	3
3.29	3
3.24	4
3.18	3
3.12	1
3.06	2
3.00	1
2.94	1
2.88	1

TABLE 3 (continued)

Rating	Frequency
2.82	2
2.76	2
2.71	1
2.65	2
2.59	2
2.41	1
2.29	1
	N = 147

TABLE 4.
Summary of Influence Statements Selected By Procedure 1
(100% Rating On Items 4 and 5) And Procedure 2
(Statements With A Mode Of 5 In Which
80% Of The Responses Were 4 Or 5).

No.	Statement	Category	Mean
	Procedure 1 (100% rating on items 4 and 5).		
96	Telecommunications will impact distance learning .	Technology	4.89
102	New technology developments affecting continuing education will be more common, i.e., satellite delivery.	Technology	4.76
40	There will be increased emphasis to evaluate the quality and learning outcomes of both credit and non-credit continuing education programs.	Curriculum	4.71
91	Growing acceptance of media-based distance education will influence continuing education.	Technology	4.71
14	We will continue to see an increase in the number of part-time students over the age of 25 who attend higher education.	Demographics	4.65
16	The aging population will influence continuing education.	Demographics	4.65
17	Changing ethnic demographics will change continuing education.	Demographics	4.65
64	There will be a need to extend the hours in which classes are offered because many students will need classes at various hours due to employment and other factors.	Organization & Administration	4.65

TABLE 4. (continued).

No.	Statement	Category	Mean
	Procedure 1 (100% rating on items 4 and 5).		
37	Assessing the outcomes of participation in continuing education programs and courses will become more important.	Curriculum	4.59
107	More emphasis will be placed on global training for U.S. corporations using high-tech technologies.	International	4.59
12	The changing demography of the United States will impact what we teach and how.	Demographics	4.53
25	There will be a larger population of nonwhite students (in continuing education).	Demographics	4.53
90	Instructional technologies will impact continuing education.	Technology	4.53
100	Continued advances in the development of communication technologies will significantly change the way continuing education is delivered to consumers.	Technology	4.53
139	Public policy which affects national and state support for learners and for institutions; cutbacks in support to institutions result in more pressure on continuing education to be entrepreneurial.	Society	4.29

TABLE 4 (continued).

No.	Statement	Category	Mean
	Procedure 1 (100% rating on items 4 and 5).		
31	The ongoing move toward continuing education being required for various professional occupations will continue to affect curriculum development in continuing education (e.g., certificate programs, programs used at meeting licensing requirements, etc.).	Curriculum	4.24
63	The training needs of many businesses are best met by a collaboration between continuing education programs and the businesses.	Organization & Administration	4.24
	Procedure 2 (Influence statements with a mode of 5, and 80% of responses = 4 or 5).		
101	New technological developments affecting continuing education will be more common, i.e., satellite delivery.	Technology	4.76
138	Multiple careers will become common.	Society	4.76
110	There will be demographic changes requiring more understanding of other cultures.	International	4.65

TABLE 4 (continued)

No.	Statement	Category	Mean
	Procedure 2 (Influence statements with a mode of 5, and 80% of responses = 4 or 5).		
103	Always talked about as the coming revolution for the last ten to fifteen years, technology will finally have a surging ubiquitous presence that will truly change continuing education for the individual, i.e., interactive CDs, digital-cable links, voice activated computers.	Technology	4.59
144	Rapidly changing skills needed in Society the workplace will put additional pressure on continuing eduction to respond faster to those changes.	Society	4.59
28	There will be more minority and women students.	Demographics	4.53
81	Greater pressure on universities to build external constituencies.	University Relations	4.53
132	Universities will be required to change (most if not all) to meet demands of citizens; there will be greater accountability.	Higher Education	4.47
140	Increasing awareness of the need for continuous learning as a result of constant and dramatic change.	Society	4.47
93	Electronic technology will make it easier and more economical to serve learners at a distance.	Technology	4.41

TABLE 4 (continued)

No.	Statement	Category	Mean
128	Reordering of fiscal priorities at federal and state levels will result in an increasing downsizing of higher education with attendant demand for greater accountability of higher education.	Higher Education	4.41
26	A changing economy which places demands on the population for new jobs, new economic basis, retraining, etc.	Demographics	4.35
36	Computer training for nearly everyone.	Curriculum	4.35
106	The increased communication and economic interdependency of nations will impact on continuing education.	International	4.35
147	More competition from the private sector engaged in the learning/education business.	Society	4.35
78	Proliferation of providers in the public and private sectors, educational, corporate and government agencies.	University Relations	4.29
84	Leadership in continuing education will require change for greater understanding of total university/college activity than is currently the case.	University Relations	4.29

TABLE 5.
Influence Statements Deemed Critical: Reported By Percent Of Final List, Percent Of Category, And Percent Of Original List.

Category	n Items Category	n Items Critical	% (n=33)	% Category	% (n=147)
Technology	20	8	23.5	40.0	5.4
Demographics	19	6	20.6	36.8	4.8
Society	13	5	14.7	38.5	3.4
Curriculum	13	4	11.8	30.8	2.7
Univ. Rela.	9	2	8.8	33.3	2.0
International	11	3	8.8	27.3	2.0
Higher Ed.	9	2	5.9	22.2	1.4
Org/Admin	16	2	5.9	12.5	1.4
General	9	0	0.0	0.0	0.0
Professional	19	0	0.0	0.0	0.0
Funding	9	0	0.0	0.0	0.0

Data Interpretation

The 17 member Delphi panel of experts produced an array of possible roles for continuing education in the next century. The Delphi process produced findings that, for the for the most part, support what is reflected in the literature.

In general, there were two important patterns to emerge from this study. First, the high degree of consensus from the rankings from the Delphi process. Second, was what the Delphi process did not indicate.

The high degree of consensus from the 17 member Delphi panel rankings at the end of round three is important. There were 81 critical influence statements which received a ranking of 100% and a mode of 4.00 or higher, using the three criteria as discussed above. There are three reasons why such a high level of consensus exist. First, all 17 panel members have similar backgrounds and have current work experiences at approximately the same level in their academic organization. Specifically, all have administrative positions in their organizations. They all direct and manage continuing education organizations.

Second, the 17 member Delphi panel did not produce a single critical influence which could not be located in the published literature. This represents a pattern reflecting a group of well informed panel members. Concurrently, the more important the critical influence was rated by the 17 panel members; the more numerous the literature citations regarding the critical influence. In particular this similarity was present for the categories of Technology and Demographics. For the other categories the ratings became less focused. For Technology made up of 40% of the total influences, had 8 critical influences

identified as important and comprised 23.5% of the most important critical influences. For the category of Demographics, the critical influences made up 36.8% of the total influences, had 7 critical influences identified as important and comprised 20.6% of the most important critical influences.

Finally, the Delphi process itself caused consensus. The fact that such a large number of critical influences (81) were rated at 100% and a mode of 4.00 or higher illustrates high consensus. All three of these elements suggest a possibility of consensus.

It was no surprise to find Technology and Demographics having high rankings in the Delphi process. However, it was a surprise to find the category, Society, with the third highest ranking. Society had 38.5% of the total influences, had 5 critical influences identified as important and comprised 14.7% of the most important critical influences. Also surprising, was the low ranking of the category Professional. Professional had zero rank of total influences, had no influences identified as important and zero again in terms of no critical influences identified as most important. The category Professional is where leadership and leading influences are located.

The remaining categories, Curriculum, University Relations, International, Higher Education and Organization and Administration had scores scattered across the mid- and lower rankings of the survey. This indicates that while these categories were important enough to be identified in the process, they did not maintain a high level of importance when compared with the Technology, Demographics and Society. The categories of General, Professional, and Funding

had low scores. The low rankings of these categories indicates possibilities of ambiguous wording of the influence statement and/or an overall lack of interest of the 17 member panel in these catagories when compared with the other categories.

In summary, three categories were pushed to the top by repeated winnowing of the critical influences statements using descriptive statistics of mode and mean as selection criteria. From 147 critical influence statements a important 34 critical influences statements were deemed most important. When grouped within category three categories were dominant. Each of these three categories, Technology, Demographics and Society are supported in the literature as being well known and widely written about in the professional journals.

One category, Professional, became important because it was deemed important in Round One and subsequently disappeared by Round Three. Professional in this study and in the category is defined to mean the elements of identity and image of the field as well as to the leaders who work in continuing education. The category Professional represents leading and leadership which comprise important elements of continuing education. Leadership and leading in continuing education is crucial to successful continuing education programs and units on university campuses in the 21st Century. Why, then did Professional receive such low rankings as to make this category place next to last of the categories having the lowest percentages by final list, percent of category and percent of original list?

Critical Influence Statements Summary Sheet Analysis

For each of the critical influences identified by the 17 Delphi panel members

during Round One of the study, a Summary Analysis Sheet has been developed. This sheet contains the influence statement, the category, and a matrix reflecting the information gathered during Round Two and Three of the Delphi study. Included in this matrix is a frequency distribution by rounds and the descriptive statistics of mode, mean, and standard deviation. In addition, as a part of the Delphi Technique process, the panelist were asked to provide comments where their response deviated from the general consensus of the group of more than one item, represented by the mode. Their comments, commonly know in Delphi parlance, as minority reports are also reflected on the Summary Analysis Sheets. At the end of Round Three, each of the panelist was asked to evaluate the total list of influences as finally rated by themselves as a panel of experts and identify the one influence (or group of influences) believed to be the most critical. The panelist were then asked to state what future continuing education program(s) will be needed to meet that most critical influence forecasted. The statements provided by the panelist have been included in the section on the Summary Analysis Sheets located at Appendix K.

Chapter Summary

This chapter has provided a presentation and analysis of the data collected through the Delphi process. A total of 5 tables were presented to help categorize the data collected. One hundred forty-seven critical influences were identified by the 17 member Delphi panel. Thirty-one influences, after rating by the 17 member panel, exhibited a mode of 5 - Certain To Occur. Seventeen influences were rated 5- Certain To Occur or 4 - Very Likely To Occur by 100 percent of the Delphi panel.

Seventy-four influences were rated 5 - Certain To Occur Or 4 - Very Likely To Occur by at least 80 percent of the 17 member Delphi panel. Influences so rated were organized by frequency distribution in order to better reflect the categories most often cited as likely to occur by the panel. These most likely influences were listed, by category, in tables. In addition, the critical influences appearing to be less likely to occur were presented in table form. Finally, the individual panel members' statements on the role of continuing education at land-grant universities in the 21st Century were summarized into two tables, 4 and 5 respectively.

An individual analysis of each influence statement is presented on the Summary Analysis Sheets appearing in Appendix K .

Chapter V

Summary, Conclusions, and Recommendations

The purpose of this study was to identify the critical influences impacting on continuing education in the early decades of the 21st Century. This chapter supports this purpose by providing a summary of the study, the conclusions and recommendations.

Summary of the Study

The purpose of this study was to forecast the critical influences on the future role of continuing education programs at land-grant universities in the 21st Century, and to evaluate the relative likelihood of these critical influences occurring in the next ten years. Additionally, an effort was made to identify some future alternatives as expressed through the rating scale attached to the various critical influences by the 17 member Delphi panel of experts. Because of the ambiguity of the topic, and because of the desire to "predict the future", the Delphi Technique was selected as the most appropriate research methodology.

Through a process of personal nomination and referral from land-grant university continuing education professionals, a panel of 17 experts with knowledge and experience in the area of continuing education, particularly related to experiences in land-grant universities, was selected to participate in the study. In Round One these experts generated a list of 166 critical influences on the role of continuing education programs at land-grant universities in the 21st Century that was edited to a total of 147 critical influences. These influences were arranged into 11 categories:

General, Demographics, Curriculum, Professionalism, Organization and Administration, University Relations, Technology, International, Funding, Higher Education, and Society.

In Round Two of the Delphi process, the experts were asked to rate each influence statement on a five point Likert-type scale from 1 - Certain Not To Occur to 5 - Certain To Occur. The results of Round Two were arranged into a frequency distribution utilizing the mode to indicate group consensus.

In Round Three, each respondent was provided the results of the Round Two analysis to include annotation of his or her own responses and an indication of agreement or disagreement with the consensus.

In Round Three, the expert was asked to reassess his or her position and rescore the list of critical influences in view of the 17 member panel response and his or her previous second round response. Where the expert deviated by more than two positions on the scale from the consensus of the group, he or she was asked to provide statements of rationale for this deviant position. These statements were included in the Summary Analysis Sheets as minority reports.

From each of the critical influences offered by the 17 member Delphi panel during Round One of the study, a Summary Analysis Sheet was developed. This summary analysis contained the influence statement, the category, and a matrix reflecting the information gathered during Round Two and Round Three of the Delphi study. Included was a frequency distribution by rounds and the descriptive statistics, mode, and mean. In addition, the Summary Analysis Sheets contained the Minority Reports and, statements on possible role of continuing education programs at land-grant universities in the 21st Century.

Conclusions of the Study

The conclusions drawn from this study were based on the review of relevant literature, the analysis of the data, respondent's minority reports, and the implications of the statements on the role of continuing education programs at land-grant universities in the next century provided by the 17 member Delphi panel. It is this synthesis of these materials that provides the answer to the research question and produces the conclusions of this study.

1. The key question concerning this study was "Did the findings support and identify the role of continuing education at land-grant universities in the next century? The answer is "Yes." The findings as outlined in Chapter IV are verified and supported in the literature discussed in Chapter II.

The findings suggest that the role of continuing education at land-grant universities in the next century will consist of greater involvement with education telecommunications in continuing education program development and implementation. The findings support this; the category "Technology" identified eight (8) specific critical influences included in the final list of the 34 most critical influences. Technology ranked number one (1) in frequency/total category (15/20), with 75% of total category, and ranked by the 17 member panel supporting it's importance with an 80% ranking indicating a great likelihood of occurrence.

The role of continuing education at land-grant universities in the next century will see continuing education programs and operations being sensitive to the evolving shifts in student demographics. The findings supported this; the category "Demographics" identified six (6) specific critical influences which were included in the final list of the 34 most critical influences. Demographics ranked number four (4) in

frequency/total category (12/19), with 63% of total category, and ranked by the 17 member panel supporting it's importance with an 80% ranking indicating a great likelihood of occurrence. Inclusion as the top four in overall importance of the final list of 34 category and it's lower ranking (4th position) can be explained. Of the 19 total identified critical influences, the 17 member panel identified 12 of these as having a high likelihood of occurrence. When Procedure 1 and Procedure 2 was applied a number of the critical influences in this category slipped away (6), leaving six (6) critical influences identified as most likely to occur. The high number of most important critical influences, 12, out of the total number of critical influences (19) caused Demographics to leap frog over other categories which had a lower ratio of total critical influences to those identified as most critical.

The role of continuing education at land-grant universities in the next century will see an increased concern for society as such social problems as crime, drugs, illiteracy and re-training relate to learning. Continuing education is looked to as part of the solutions facing a learning society. The findings supported this; the category "Society" identified five (5) specific critical influences targeted at a learning society. These five (5) most important critical influences did not relate to behavioral problems in society, but were directed at learning and skills needed in a society of the 21st Century. Society ranked number five (5) in frequency/ total category (8/13) with 61% of total category, and was ranked by the 17 member panel supporting it's importance with an 80% ranking indicating a great likelihood of occurrence. Inclusion in the top four in overall importance of the final 34 critical influences and it's lower ranking can be explained. Of the total identified critical influences of 13, the 17 member panel identified eight (8) of these as having a high likelihood of occurrence. When Procedure

1 and Procedure 2 was applied two of the critical influences in this category slipped away, leaving five (5) critical influences identified as most likely to occur. The high number of most important critical influences, 8, out of the total of 13 caused Society to leap frog over other categories which had a lower ratio of total critical influences to those identified as most critical.

The role of continuing education at land-grant universities in the next century will see a increased concern over programming content and outcomes. Continuing education should become more involved in creating curricula which is more tailored to the specific program needs of continuing education offerings and do less borrowing from other education disciplines. The findings supported this; the category "Curriculum" identified five (5) specific critical influences which were included in the final list of the 34 most critical influences. Curriculum ranked number seven (7) in frequency/total category (7/13) with 54% of total category and was ranked by the 17 member panel supporting it's importance with an 80% ranking indicating a great likelihood of occurrence. Inclusion in the top four in overall importance of the final list of 34 category and it's lower rank can be explained. Of the total identified critical influences of 13, the 17 member panel identified five (5) of these as having a high likelihood of occurrence. When Procedure 1 and Procedure 2 was applied three of the critical influences in this category dropped off, leaving five (5) critical influences identified as most likely to occur. The high number of most important critical influences, 7, out of the total of 13 caused Curriculum to leap frog over other categories which had a lower ratio of total critical influences to those identified as most critical.

In summary, these four categories, Technology, Demographics, Society and

Curriculum contain three-fourths of the final list of the 34 critical influences deemed most likely to occur in the next century in the field of continuing education. Continuing education will need to address the categories separately and as a whole to properly fulfill its role as an education leader at land-grant/public university campuses.

2. The remaining seven (7) categories, University Relations, International, Higher Education, Organization and Administration, General, Professional and Funding had their critical influences scattered across a continuum in terms of being designated by the 17 member panel as important or of lesser importance.

Using the final list of 34 most critical influences as a reference point there developed two broad categories in which these seven (7) groups show a pattern. One broad category containing University Relations, International, Higher Education and Organization and Administration all contained critical influence statements making the final list of the 34 most critical influences. These were 2, 3, 2, and 2 respectively. There frequency-to-category scores shed light on the overall mid- to low placement on the final 34 list.

University Relations had a 6/9 ratio with only two critical influences making the final 34 list. International had an 8/11 ratio with only three critical influences making the final list. Higher Education had a 4/9 ratio with only two making the final list. And, finally, Organization and Administration had a 7/16 ratio with only two making the final list.

Both International and Organization and Administration had a large number of critical influences identified by the 17 member panel, but their importance shrank as the panel moved toward consensus. It would appear that two dynamics are in motion causing this strong start and dismal finish phenomena. For International the problem

is identified by the fact that this area of international continuing education is relatively new. Much about the role of continuing education at land-grant universities and international continuing education is yet unknown. This explains the large number of critical influences identified early on in the Delphi process and the fact that these same critical influences did not stand up under closer examination by the 17 member panel. These critical influences show that the panel held no strong viewpoint as to what may occur in international continuing education in the next century.

The second dynamic in motion, concerns Organization and Administration's critical influences identified by the 17 member panel. The panel identified 16 original critical influences in this category, seven (7) were supported by 80% of the 17 member panel as being important, but when a move toward consensus occurred only two (2) made the final 34 list. This indicates that there are no firm organization and administration patterns in continuing education. Units, programs and structure are developed to respond to institutional specific needs. There is no single structure or organization and administration design that dominates continuing education. Because of this phenomena there developed no strong support for the 16 critical influences in that category. When the 17 member panel asked for consensus the ratings shifted, but not to extreme positions. As a result the overall scores for these critical influences were mostly in the mid-range. When Procedure 1 and Procedure 2 was applied most of the critical influences in Organization and Administration dropped off the final list.

In summary, the role of international continuing education will settle out in due time. Leaders in continuing education should know not to become too rigid or adventurous in terms of international continuing education development or

expansion; the area is still developing and caution is suggested. The role of Organization and Administration in continuing education will be shaped by the professional leadership at land-grant universities in the next century. Leaders should emphasize contingency management, team building, case management and site-based administration. The fact that continuing education is a young, developing profession should alert program directors that currently there is no one best way to organize or administer continuing education. These leaders should recognize this fact and ensure that whatever organization/administration they use is closely integrated into the main campus in terms of mission and hierarchy. The fast-paced growth of organization and adminstration of continuing education appears to present a two-faced strategy. One strategic face reflects the main campus structural design, that of routine, traditional, academic rigor and stability.

The other strategic face reflects the highly volatile real word in which it works, that of fast-paced change, "satisficing" decisions (decisions that reflect a high degree of compromise) rather than ideal decisions, Every semester, and every year is different in the demands from its constituents. Organization and administration is at once a process-centered (main campus) and student-centered (community) entity. The results of this study reinforce the fact that it is too early to come to a final conclusion of the role of International and Organization and Administration programs at land-grant universities.

The second broad category contains General, Professional and Funding. Professional is discussed at No. 3 below. General and Funding both had nine (9) original critical influences. The 17 member panel supported 2 and 6 critical influences, respectively, with 80% ratings. This support disappeared when Procedure 1 and

Procedure 2 was applied. When the 17 member panel moved to consensus neither the General nor Funding category had any critical influences make the final 34 list. This reflects the ambiguous nature of the General critical influences. The Funding category is tied to the budget allocation processes on land-grant university campuses making any real impact by local leaders minor. Land-grant university continuing education operations are not as concerned about the funding of their programs in that most of the budgeting decision are not under their control. The findings of this study support this view. Continuing education at land-grant university campuses is not as entrepreneurial as a similar continuing education unit at a private college. The public university receives a yearly budget allocation from the state. Small colleges have to be self-sufficient. The importance of Funding critical influences are not expected to change drastically in the early decades of the next century.

3. It was perceived throughout the latter stages of the Delphi process, that the 17 member panel of experts experienced some difficulty in focusing on the critical influence Professionalism. The panelist, like their contemporaries in the continuing education literature, were more prone to identify process factors relating to Professionalism, rather than tackle the core issue, leadership and leading (Barnard, 1938; Cornish, 1960; Davis, 1980; Drucker, 1967; Gravely, 1983; Henry, 1981; Hodgkinson, 1985; Houle, 1980; Hubka, 1983; Jacobs, 1970; Mattran, 1981; McGregor, 1960; Rockhill, 1981; et al). Of the 19 critical influences from the Professional category, only one rated 89 percent. The remaining 18 critical influences were up and down the scale like a yoyo, all being rated below the cut off point used by Procedure 1 and 1. For example, five (5) critical influences rated in the 70s percentage points; two (2) ranged in the 60s percentage band; four (4) in the 50s percentage

band; two (2) in the 30s; two (2) in the 20s; and three (3) at 11 percentage points. This clearly indicates a high level of disagreement among the panel.

The areas of disagreement reflect the avoidance of the leadership issue. Three (3) critical influences dealt with the level of control continuing education, accrediting associations and future credentialing requirements for continuing education professionals. All three (3) rated 11% by the 17 member Delphi panel. The panel as a whole did not believe that any of these critical influences had a place in mainstream continuing education programs at land-grant universities in the next century.

The panel was not supportive of the critical influences dealing with the use of continuing education professionals as business entrepreneurs/ faculty to "turn a buck" on campus (22%). Having certificate programs for continuing education professional as substitutes for formal degree programs received a failing score (28%). The 17 member panel rated only slightly higher, the critical influence statements dealing with a larger role for professional associations as managers of certification programs for continuing education professionals. This was rated at 39%. At 33% was the critical influence focusing on the need for continuing education professionals to be on a par with "regular" faculty.

Additional, the Professionalism category critical influences were rated at low chance of occurrence; there was not much support for the belief that professional associations would assume a greater role, than what they are already doing, in the future. This received a 55% confidence rating. Also receiving a 55% confidence rating were two critical influences, one dealing with the accountability of certification programs, and one talking about the need for new formal training programs for continuing education professionals and less on-the-job type programs. A 50% rating

was given to the critical influence statement dealing with legislative oversight over continuing education professional education (CPE). The 17 member panel did not believe that the various state legislatures would get involved with mandating continuing professional education.

The 17 member Delphi panel gave 60% ratings to the critical influence statements dealing with the need for faculty reward systems to be restructured, by placing much more emphasis on teaching and outreach. The 17 member panel rated this at a 61% possibility; not very confident. A 67% was given the critical influence relating to the current large number of retirements of prominent continuing education leaders. The 17 member panel agreed on the fact retirements were taking place, but they also recognized that new leaders were taking their place. The panel appears to believe that no major leadership vacuum will result from the retirements.

At the 70% rating level five critical influences were identified. Two (2) critical influences received 72%; mandatory continuing education would be extended to cover more occupations and professions and university faculty would become more skilled at teaching the part-time adult learner. The frequency distributions were spread over the three upper levels of the Likert scale, which includes 3 - Uncertain. The 17 member panel recognized the importance of these critical influences but could not, as a group, come to a firm determination as to the value of these issues on the future of continuing education on land-grant universities in the next century.

Three (3) critical influences were rated at 78%; standards of governing bodies for continuing education would grow, both private and public continuing education units would have, as a norm, professionally trained staff, and continuing education educators would engage in more action-oriented research. The 17 member panel

agrees that these critical influences are important, but still, as a whole, the panel does not have a firm belief on the details and time frames.

The highest level of agreement from the panel as a whole of the Professional category was with an 89% critical influence dealing with agreement that more classes and more new classes would be needed by the workers of the next century as a means for original hire and promotions in the workplace.

The researcher interprets the low ranking of the category Professional to be attributed to a number of factors. First, the 17 Delphi panel members identified only process elements of the more significant factors related to leadership. Second, the 17 panel members rehashed the standing argument related to mandatory or voluntary continuing professional education. Third, there may have been some ambiguity in the wording of these particular critical influences statements as presented by the 17 panel members to mask their real importance. Moreover, these factors do not mask the core problem professionalization and related elements, leadership and leading, were ignored by the 17 panel members. Therein lie their importance. When such an important element, i.e., leadership, leading, is basically ignored by a panel of experts such an occurrence could be interpreted as important. Further investigation is warranted into the dynamics of the category of Professionalization.

4. Despite the definition of this study as relating to land-grant universities, the Delphi panelist's responses suggest that, for the most part, they do not make a significant distinction between the land-grant university and other major public comprehensive research universities. A few of the Delphi respondents restricted statements to the land-grant institution, particularly in the area of organization and administration, university relations, and technology, and funding, but in general the

influences generated apply to all major public universities, regardless of their classification of research or non-research.

5. The 17 member Delphi panel did not identify a vast number of influences that were not already addressed in the literature. Their collective assessment of the impact of some of these influences disagreed sharply, however, with some of the prevailing published material. For example, the panel forecasted uncertainty for women and minorities (Asian and Middle Eastern) to become a dominant force in continuing education in the next century; where more than one article built a believable case for the opposite to happen (Hodginson, 1986; Harrington, 1979; Boehmcke, et al.,1990; Brockett, 1987; Darkenwald and Merriam, 1982).

In summary, the category Professionalism was a disappointment. The core issue was only lightly touched, "Most of today's major leaders in the continuing education field will have retired." Leadership and leading was not identified as a critical influence. Peripheral issues were, such as, mandatory continuing education, role of associations in oversight of continuing professional education, and the role of state legislatures in this oversight. None of these critical influences extracted much confidence from the 17 member expert panel. The views of the panel were supported by the literature in terms of professional continuing education or self-development (Harrington, 1979; Rampp & Nolan, 1987; Mattran, 1981 versus Rockhill, 1981).

The role of continuing education on land-grant universities in the 21st Century as indicated by the results from the Delphi panel are clear. Using Table 5 (above, Chapter IV) as being a summary representation of the research findings it would be suggested that continuing education enhance or continue the following roles:

Outreach. Using the most current education technology continuing

education will maintain a central role in the delivery of their old and new programs to the many audiences who demand them.

Access. Continuing education will maintain its role as the major access point for continued education of almost all professional and non-professional workers. This also applies to those citizens who desire non-credit courses.

Equality. The innate nature of continuing education programs in terms of accessibility and availability has a foundation of nondiscrimination.

Responsive. The market will continue to change continuing education as the field continually realigns to meet current demands. Quality is maintained by students who return and complete their classes.

Dependance. Continuing education will continue to be dependent on main campus, this will be reflected in organization, structure, university relations, and funding.

Recommendations

As a result of the findings and conclusions contained in this study, the following recommendations are offered for consideration:

1. It is recommended that the results of this study be made available to public institutions through the National Association of State Universities and Land-Grant Colleges. Through this mechanism, land-grant continuing education units may be able to anticipate the influences that will have an effect on their organizations and arrange their programs to more adequately deal with these influences.

2. It is recommended that strong consideration be given to the continued development of continuing education degree programs in higher education. Although such programs exist, they must be strengthened and expanded both in regular advanced degree programs and in professional development areas in order to develop the management and administrative expertise to meet the institutional and program administrative requirements of the 21st Century.

3. It is recommended that university continuing education administrators across the nation carefully assess the effects of changes in student demography and develop programs and organizations that are even more responsive to these changes.

4. It is recommended that institutional continuing education administrators organize, meet and deal with the growing change of policy impacting the use of educational technology.

5. It is recommended that continuing education units develop and provide for expert staff support in order to meet the developing financial constraints arising from the combination of inflation, funding formulas, to a main campus decline in enrollment base.

6. It is recommended that continuing education units give particular emphasis to the university relationships of development and grant writing staffs to meet the requirements for soliciting private outside funding in the future.

7. It is recommended that institutions of higher education recognize the continued expansion of statewide systems of higher education and

coordinating boards in the management of continuing education programs. As long as this trend continues, it will be necessarily to develop the appropriate continuing education staff structure to deal with it as a reality.

8. Continuing education administrators are cautioned to recognize and organize to meet the implications of significant workforce changes in the 21st Century. The potential for increased competition for new market audiences must be recognized. The growing number of women and minorities as disadvantaged groups must be taken into consideration.

9. It is recommended that consideration for the legal implications of continuing education programming decision making be given a higher priority. Legal staffs must be developed and oriented to the particular needs of continuing education operations.

10. It is recommended that the importance of technology in continuing education, particularly in computers, interactive television and communications equipment must be recognized. Expertise in this area will be needed in the organization of continuing education offerings in the 21st Century.

11. It is recommended that continuing education units and programs make a special effort to continue and expand external relations programs with the general public.

12. It is recommended that continuing education administrators view carefully the growth of continuing education offerings in international development. The consensus of the 17 member Delphi panel in this

study indicated some serious skepticism about the future potential of continuing education in this area.

13. It is recommended that continuing education administrators carefully examine the importance of continuing education and access the actual effectiveness of continuing education professional associations in terms of the individual development of continuing education educators.

14. Funding mechanisms should be developed to provide some assurances to minimum levels of appropriations for continuing education operations in the face of overall declining of budget appropriations. State officials and staffs should recognize the concern over assurance of dependable funding levels in the future.

15. Senior university officials should recognize the Delphi panel's concern for having in place an organizational structure, centralized or decentralized, which best meet the needs of their environment, programs and main campus. University executives should know that the 17 panel members predicted that most continuing education structures would be a decentralized type.

Implications for Future Research

1. The 147 critical influences identified by the 17 member Delphi panel should be refined and used in a questionnaire to a vastly larger sample, perhaps all continuing education staffs at land-grant universities, in order to substantiate or refute the basic findings of this study. This should be accomplished in the relatively

near future through the use of a different research methodology.

2. It might be fruitful to conduct a similar Delphi study directed at a different level, for example, private universities, community colleges, etc. A comparison of results might provide useful information.

3. A similar study might also be directed at private four years institutions to assess the similarities and differences in concerns for the future in continuing education.

4. In view of the conclusions of this study, future research should be done to determine what is available for the development of professional continuing education staff administrators for careers in continuing education. Such a study might address the types of programs most appropriate for the development of these professional continuing education staffers and examine such activities as protege-mentor relationships, internships, certification for non professional staff and professional development sabbaticals.

5. A study should be conducted to assess the real effects of changes in study demography, particularly changes in enrollments as it relates to the widespread application of "self-sufficiency" budgeting and fund allocation for continuing education.

6. Finally, a study of this nature should be repeated at an interval of five to ten years in order to attempt to forecast the critical influences on land-grant universities in order that institutional continuing education administrators might organize to better meet these concerns.

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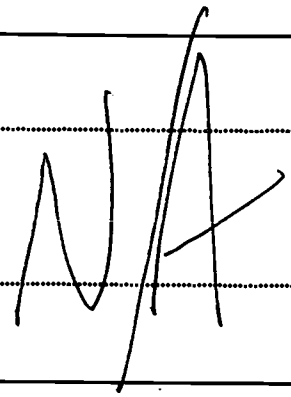

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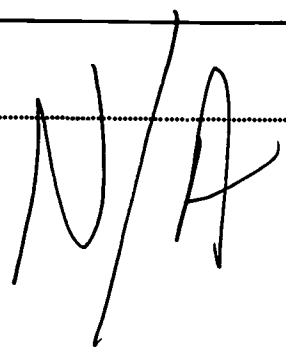

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